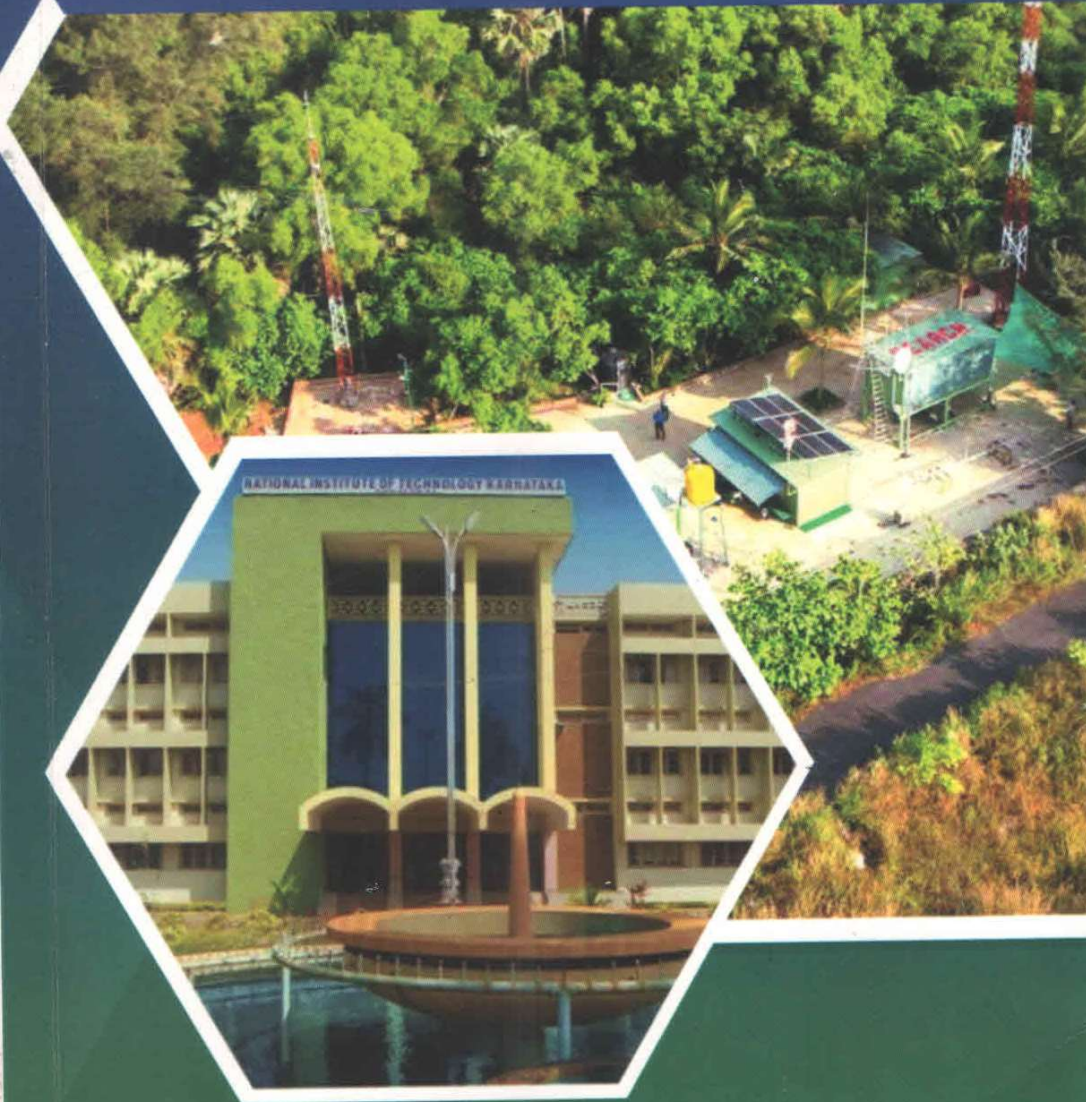




**National Institute of Technology Karnataka, Surathkal**  
Srinivasnagar, Mangaluru - 575025 INDIA



# **ANNUAL & AUDIT REPORT**

## **2023-24**

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[www.nitk.ac.in](http://www.nitk.ac.in)

**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL**  
**MANGALORE - 575 025 INDIA**



# **ANNUAL REPORT**

## **2023-24**

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## DIRECTOR'S REPORT

### Introduction

National Institute of Technology Karnataka, Surathkal is located on the Northern side of Mangaluru city in Dakshina Kannada District on the National Highway (NH 66). Formerly known as Karnataka Regional Engineering College, it was started in the year 1960, second among the first batch of eight RECs set up in the country. It was upgraded to NIT and conferred Deemed University status w.e.f. 26<sup>th</sup> June 2002 and now holds a statutory status as "Institute of National Importance" by NIT Act, notified on 15<sup>th</sup> August 2007, further amended and notified as NITSER Act 2012.

During the year, NITK achieved significant growth in various spheres of its activities including infrastructure augmentation, teaching, research, publications, testing & consultancy, student training, extra-curricular activities and placements. These enabled NITK being placed amongst the top technical institutions in the country. This has been possible through the dedicated efforts of faculty, staff and students, coupled with the goodwill of parents, alumni and industry, and generous support from the Government and other agencies.

This report highlights the notable achievements and initiatives during the year 2023-24.

### Governance:

NITK is governed by the Board of Governors, as per the NITSER Act 2012 and Statutes laid down by the Govt. of India. The Board consists of representatives from Govt. of India, Govt. of Karnataka, Industry, Educationists and the Institute Senate. The Director is the Executive Head of the Institute. The day-to-day activities are carried out by the Director, with the support of Deans, Registrar, Heads of Departments, Professor-in-charge of various activities and other functionaries of the Institute. Several committees have been formed to facilitate decision-making process, effective.

### Faculty and Staff:

Human resource is the major factor contributing to the success achieved in different spheres of activities at NITK. During the period of the report, the total number of faculty and non-faculty are 276 and 179 respectively. This includes 22 new faculty and 87 new non-teaching staff members inducted in the year. Another round of recruitments are planned to fill vacant positions.

### Institute Ranking:

The NITK has secured 12<sup>th</sup> Rank in all India Ranking for Engineering by the NIRF and secured 38<sup>th</sup> position in overall ranking category in the year 2024.

### Financial Support:

There has been an increase in Revenue and Capital grants, as well as student intake, R&D funding, Testing & Consultancy output and initiation of a few new infrastructural projects. The total internal revenue generation through fee collection and other receipts were Rs.97.89 crores. Our Corpus fund and Institute Development fund has grown steadily to about Rs.310.30 crores.

### Academic Activities:

Presently, NITK offers B.Tech programs in 11 disciplines and M.Tech programs in 26 specializations. Other masters level programs include MSc (in Physics and Chemistry departments), MBA (in the School of Humanities, Social Sciences & Management), and MCA (in Mathematical and Computational Sciences Department). Further, M.Tech (Research) programs are offered in all PG specializations, with a few seats



offered under self- financed category. Doctoral research is undertaken by PhD scholars registered in all the departments.

For the academic year 2023-24, about 1018 students were admitted to the B.Tech. Program based on their scores in JEE-Mains Examinations, 653 in M. Tech and M. Tech (Research) through GATE, 94 in M.Tech (self-financed category), 68 in MSc, 56 in MBA and 68 in MCA programs. A total of 139 students joined the Doctoral programs. There are about 1120 Research Scholars in the Institute and during the reference year, 126 were awarded PhD degrees.

The academic performance of students continues to be excellent with an overall pass percentage of more than 98.95%. A significant number of our students have succeeded in securing admissions in prestigious Universities/ Business Management Schools in India and abroad as a result of their excellent performance in GATE, CAT and other associated examinations.

### **R & D Activities:**

The faculty, students and project staff of NITK are working in a range of important fields through their R&D activities. These include environment-friendly construction technology & materials, earthquake resilient buildings, water harvesting & management, breakwater designs, green energy systems, energy from agricultural waste, GIS & remote sensing, systems engineering for vehicles, EV charge management, alternative energy sources for vehicles, developing useful chemicals from agricultural waste products, carbon-free processes of chemical & ore extractions, removal of heavy metals from contaminated water by adsorption using activated carbon, upgrading tyre pyrolysis oil, desalination, environment-friendly mining, rock blasting, extraction and mineral processing, developing green processes for material extraction & manufacturing, jute applications in soil erosion & land sliding, vehicle dynamics studies and intelligent suspension system, 5G applications in engineering systems, aerial & underwater communication, wireless interfaced IC technology for data transfer, AI & ML applications in engineering and e-governance, and many other fields.

The research is funded internally, as well as through several government agencies including DST (CRG, BIRACS and TARE schemes), DRDO, ISRO and others. NITK is a Regional Academic Center for Space (RAC-S) and coordinates with ISRO for managing projects in the Southern region. The RAC-S handled about 60+ projects in the last year, involving about Rs. 19 crores. NITK has recently set up a CoE in Digital Manufacturing, supported by Siemens. The 'Central Research Facility' houses advanced equipment for material characterization, which are used by researchers from various departments of NITK as well as those from other institutes.

The R&D knowledge has been widely shared through publications in top international and national journals. In the last five years, there have been 9+ publications and 55+citations per faculty per year, which is comparable to the top institutes worldwide. There is also a jump in IP filing, now averaging 10 patents/year during the last 5 years.

### **Infrastructural Facilities:**

In the financial year 2023-24, a new boys' hostel with 200 triple-occupancy rooms was constructed through CPWD, costing about Rs. 43 crores. This hostel, as well as two other hostels, one for girls and another for PG students, were inaugurated by the Hon'ble Prime Minister of India on 20<sup>th</sup> February, 2024. New infrastructure projects under construction include Lecture Hall Complex -D, swimming pool, and extension of electrical lines from 33KV substation to residential area with underground cabling.

### **Industry-Institute Collaborations**

NITK has signed MoUs with leading industries, research labs, academic institutions in India and abroad and

other organizations to facilitate student internships, faculty/staff exchange and joint research. Prominent collaborations initiated during the period April 2023 to March 2024 include: Bharat Electronics Ltd (BEL) Bengaluru; EM Electronics Pvt. Ltd, Bengaluru; Karnataka State Minerals Corporation limited Bengaluru; Niveus Solutions Pvt. Ltd, Udupi; Robosoft Technologies Private Limited, Udupi; TATA Consultancy Service Mumbai; SEG Automotive India Pvt. Ltd, Bengaluru; TATA Communication Limited, Mumbai; Fourth Frontier Technologies Private Limited, Bangalore; and UD Trucks India Private Limited, Bengaluru.

#### **Training and Placement:**

The Career Development Centre facilitates on-campus recruitment and placement of students, and also arranges for their training/internship in Industry. NITK is one of the most preferred institutions in the country for many companies for campus placements and internships. It includes top PSUs like BEL, BEL-CRL, GAIL, MRPL, HPCL, BPCL and C-DOT, who visited the campus. During 2023-24, the percentage of eligible students who received job offers was 93% for UG and 81% for PG as on date of this report. The average salary was Rs. 16 LPA.

#### **Social outreach activities:**

The institute sanctioned 40 HD CC Camera worth over Rs. 5 lakh to Karnataka Police Department. Regular ShramDaan events under Swachh Bharath Abhiyan program are being conducted on weekends by NITK SEVADAL with the active participation of faculty and staff members to improve the campus ambience and foster the feeling of oneness among them. Institute Swachh Bharath program team participated in the Swachh Surathkal City program in association with local NGOs.

#### **Acknowledgement and Conclusions:**

The Institute is grateful to the support from the Ministry of Education, Government of India, Board of Governors and Senate members of the Institute. The faculty and non-teaching staff members are to be appreciated for their dedication to duty, and participation in various activities and initiatives. NITK is fortunate to welcome excellent students from all over the country year after year, who make the Institute their 'second home', and after graduation continue to excel in various spheres ranging from academia and industry to public service and sports. The Institute is poised to touch new heights by striving for global excellence coupled with local relevance in terms of socio-economic impact in the region in collaboration with other institutes and organizations.

Date: 25-06-2024

Place: Surathkal

(PROF. B. RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL



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## 1. NITK AT A GLANCE 2023-24

### 1.1 Academic Structure

#### DEPARTMENTS/SCHOOLS

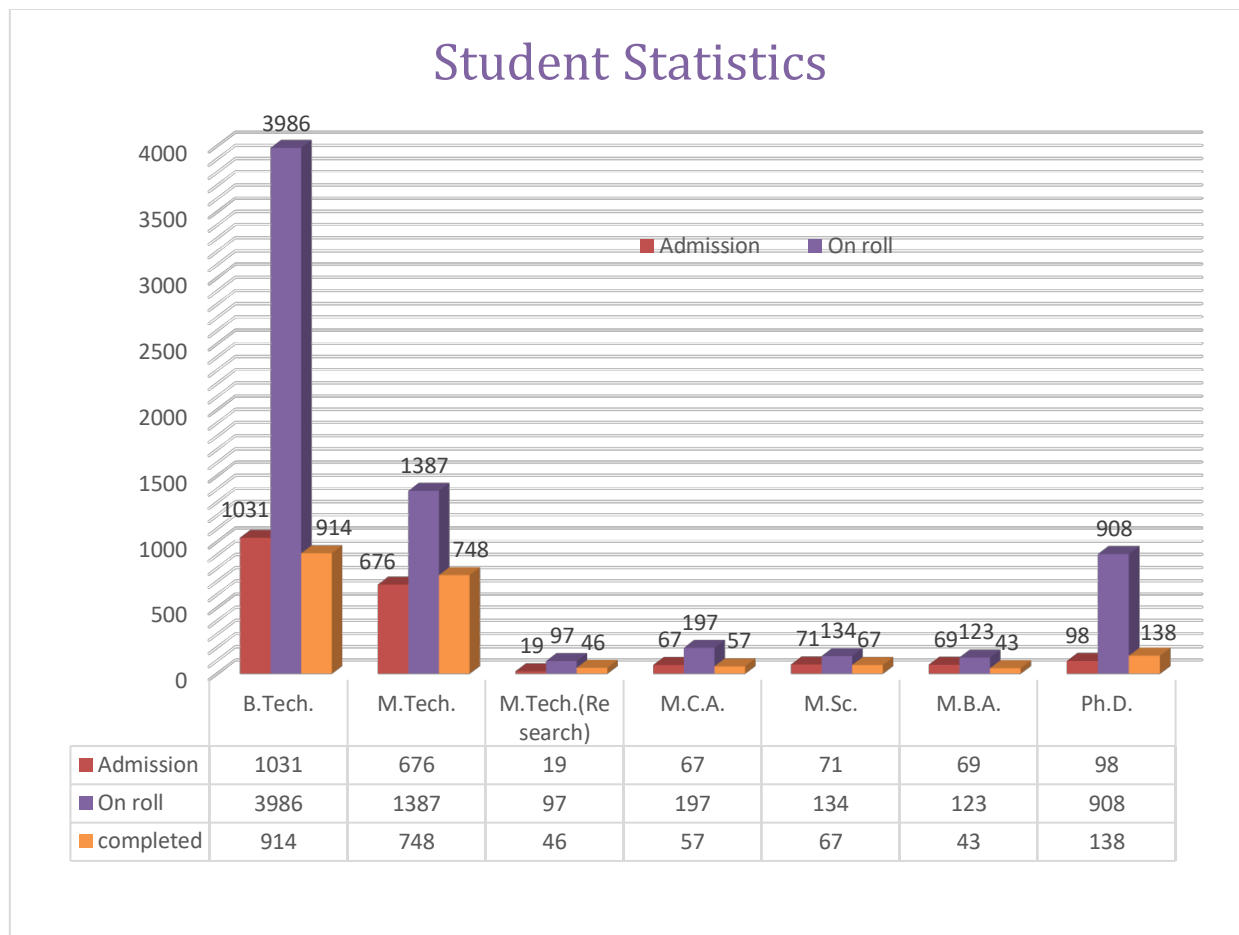
CH	Chemical Engineering
CY	Chemistry
CV	Civil Engineering
CO	Computer Science & Engineering
E&E	Electrical & Electronics Engineering
E&C	Electronics & Communication Engineering
IT	Information Technology
MACS	Mathematical and Computational Sciences
ME	Mechanical Engineering
MT	Metallurgical & Materials Engineering
MN	Mining Engineering
PH	Physics
WROE	Water Resources & Ocean Engineering
SHSSM	School of Humanities, Social Sciences and Management

#### CENTERS

CCC	Central Computer Centre
CRF	Central Research Facility
CE & QIP	Centre For Continuing Education & QIP
CIC	Centre for Innovation Cell
CSEE	Centre for Sustainable Energy Engineering
CSD	Centre for System Design
CTS	Centre for Transdisciplinary Studies
COEDM	COE in Digital Manufacturing
COSH	Centre for Open-Source Software and Hardware
HCC	Health Care Centre
SEARCH	The System for Emergency Assistance, Response & Communication Hub



## STUDENTS



### UG/PG/Ph.D. student statistics for the year 2023-24

## 2. THE INSTITUTE

National Institute of Technology Karnataka (NITK) Surathkal, formerly known as Karnataka Regional Engineering College (KREC) Surathkal, was established in the year 1960 at Srinivasnagar, Mangalore, Karnataka State. Sri U. Srinivasa Mallya, a visionary and philanthropist, was instrumental in establishing this Institute; hence, the campus is named after him “Srinivasnagar”. KREC made a small yet significant beginning with three Departments offering BE programs in Civil, Mechanical and Electrical Engineering. Since then, KREC has grown from strength to strength and set unprecedented records in the field of technical education in the country. Initially, the College was affiliated with the University of Mysore but in 1980 the affiliation was transferred to the Mangalore University. With every passing batch of students who went on to conquer unexplored domains in the service of humanity, the stature of KREC grew and the world recognized and applauded. So much so, ‘Surathkal’ is synonymous with high-quality engineering education. In 2002, the Government of India decided to grant full autonomy. Accordingly, the College was elevated to the status of Deemed University and renamed as the National Institute of Technology Karnataka. Subsequently, the National Institute of Technology Act, 2007 was enacted by the Parliament of India to declare India’s National Institutes of Technology as Institutes of National Importance. The Act received the assent of the President of India on 5 June 2007 and became effective from 15 August 2007. The Institute is governed by the rules and statutes of the NIT Act.

The Institute has established itself as a premier center engaged in imparting quality technological education providing support to research and development activities. The Institute has a long tradition of research for several decades in both traditional and modern areas of engineering and sciences in all departments. The Institute has been actively involved in applied research while identifying and resolving problems faced by society in several areas. NITK attracts students from all over the country and abroad. NITK graduates are sought after by top industries/companies and the Institute has been rated as one of the best Institutions in the country with regard to student placements. Many of its alumni occupy coveted positions both in India and abroad and are sources of pride and inspiration to the Institute. NITK is consistently rated among the top engineering and technological institutes in India. Today, the Institute offers eleven B.Tech programs, 31 postgraduate programs and Doctoral programs in all its fourteen Departments and is making significant advances in R&D and outreach activities too.

### 2.1 Location

The Institute is located at Srinivasnagar, Surathkal in the Dakshina Kannada District of Karnataka State, 21 km north of Mangaluru city on either side of NH 66 which cuts across the campus. The campus is well connected by rail, road, air and sea with the rest of the country. The airport is situated at Bajpe, 20 km from Surathkal. The nearest Railway station is Surathkal (3 km) which is on the Mangaluru -Mumbai Konkan Railway route and the nearest seaport is New Mangalore which is 8 km south of the Institute premise.

### 2.2 Campus

The campus covers an area of 295 acres in picturesque surroundings with Western Ghats in the East and the Arabian Sea in the West. The campus is well laid out with roads, electrical installation, water supply, underground drainage, etc. The campus, being on the seashore, is blessed with clean air, lush greenery and a healthy climate. The National Highway 66 separates the campus into Western Side and Eastern Side campus. The Western Side of the campus houses the Departments of Electrical and Electronics Engg., Electronics & Communication Engg., Computer Science and Engg. and Information Technology, Guest House, STEP, Yoga Center and pristine beach.

## 2.3 Governing Bodies of the Institute

NITK is governed by the Board of Governors which consists of representatives of the Government of India, Government of Karnataka, Alumni, Industry, and other nominees. The Chairperson of the Board is nominated by the Government of India. The Director is the administrative Head of the Institute. The functioning of NITK is governed by the NITSER Act 2007 and rules laid down by the Government of India. The structure contains a Council of NITs, BoG and Other Committees.

### 2.3.1 Council of NITs

- Hon'ble Minister, Ministry of Education (erstwhile MHRD), Government of India
- Education Secretary, Ministry of Education (erstwhile MHRD), Government of India
- The Chairperson of National Institute of Technology Karnataka, Surathkal
- Director of National Institute of Technology Karnataka, Surathkal
- Chairman, UGC
- Chairman, All India Council for Technical Education
- Director, General, Council for Scientific and Industrial Research
- Secretary, Department of Bio-Technology, Government of India
- Secretary, Department of Atomic Energy, Government of India
- Secretary, Department of Information Technology, GOI
- Secretary, Department of Space, Government of India
- Not less than three but not more than five persons to be nominated Member by the Visitor, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, industry, science or technology
- Three members of Parliament of whom two shall be chosen by the Member House of the people and one by the Council of States
- Two Secretaries to the State Government, from amongst the ministries Member or departments of that Government dealing with technical education Two Secretaries to the State Government, from amongst the ministries Member or departments of that Government dealing with technical education
- Financial Adviser, Ministry Government of India
- Joint Secretary – Technical (Technical)/ Additional Secretary (Technical), Department of Higher Education, Ministry of HRD, GOI.

### 2.3.2 Board of Governors

Name & Address	Term
<b>Chairperson In-charge</b> Prof. Prasad Krishna <i>Director (Additional Charge)</i> NITK SURATHKAL	<i>From 25.08.2022 to 14.06.2023</i>
<b>Chairperson In-charge</b> Prof. Bhallamudi Ravi <i>Director</i> NITK SURATHKAL.	<i>From 15.06.2023 to 11.12.2023</i>
<b>Chairperson</b> Dr. Vijay Sankeshwar <i>Chairman &amp; Managing Director</i> VRL Logistics Ltd. Hubballi – 580023.	<i>From 12.12.2023 to till date</i> <i>F.No.351/2018-TS.III dt.18.12.2023 received from the Joint Secretary to the GoI, MoE, DoHE, New Delhi.</i>
<b>Members:</b>	

Director Ex-Officio Prof. Prasad Krishna Director (Additional Charge), NITK SURATHKAL	From 25.08.2022 to 14.06.2023
Prof. Bhallamudi Ravi Director NITK SURATHKAL	From 15.06.2023 to till date
Nominee of the Central Government:	
Ms. Saumya Gupta, IAS (TR:2004) Joint Secretary (NITs) Dept. of Higher Education Ministry of Education (Shiksha Mantralaya) Govt. of India, Room No.203, C – Wing Shastri Bhavan, NEW DELHI – 110 001.	From 07.12.2021 to till date
Sh. Sanjog Kapoor Joint Secretary & Financial Advisor Integrated Finance Bureau, Ministry of Education, (Shiksha Mantralaya) Govt. of India, 120-C, Shastri Bhawan, New Delhi - 110 001.	From 06.01.2023 to till date
Nominee of the State Government:	
Dr. Y. A. Narayanaswamy Hon'ble Member – Karnataka Legislative Council No.461, 7th Cross, 4th Main H.I.G. Dollar's Colony RMV 2nd State, Bengaluru – 560094.	From 29.01.2022 to 03.10.2023 Notification No: ED/252/TEC/2021 (B) dated 03.10.2023 received from the Deputy Secretary to Government, Higher Education Department, Bengaluru.
Shri Aprameya Radhakrishna CEO & Co-founder of Koo No.101, Van Gogh's Garden Kasturba Cross Road Bengaluru – 560001.	
Nominee of the State Government:	
Dr. H. N. Jagannatha Reddy Professor Civil Engineering Branch Bangalore Institute of Technology, K.R. Road, V.V. Puram Bengaluru– 560004.	From 03.11.2023 to till date Notification No. ED/252/TEC/2021 dated 03.11.2023 received from the Under Secretary to Government, Higher Education Department (Technical), Bengaluru.
Shri K. Ajith Kumar Rai Founder and Chairman, Suprajit Group of Companies, Tara, 144/1, 4th Main, Defence Colony Indiranagar, Bengaluru– 560038.	
Nominee of the NIT Council	Vacant
Nominee of the Institute Senate	
Prof. U. Shripathi Acharya, Professor Department of Electronics & Communication Engineering NITK SURATHKAL.	From 10.11.2022 to 09.11.2024
Dr. Vasudeva Madav Assistant Professor Department of Mechanical Engineering NITK SURATHKAL.	From 17.10.2021 to 16.10.2023
Dr. Vasudeva Madav Associate Professor Department of Mechanical Engineering NITK SURATHKAL.	31.10.2023 to two years Senate Election held on 31.10.2023.
Director, IIT-Bombay Prof. K. V. Krishna Rao Deputy Director (FEA) & Professor, Dept. of Civil Engineering Indian Institute of Technology Bombay	From 27.05.2022 to three years

P.O. IIT Powai, Mumbai – 400 076. <b>[Nominee of the Director, IIT-Bombay].</b>	
<b>Secretary</b> Shri K. Ravindranath Registrar NITK SURATHKAL.	Till date

### 2.3.3 Finance Committee

Name & Address	Term
<b>Chairperson In-charge</b> Prof. Prasad Krishna Director (Additional charge) NITK SURATHKAL	From 25.08.2022 to 14.06.2023.
<b>Chairperson In-charge</b> Prof. Bhallamudi Ravi, Director NITK SURATHKAL.	From 15.06.2023 to 11.12.2023.
<b>Chairperson</b> Dr. Vijay Sankeshwar Chairman & Managing Director VRL Logistics Ltd. Hubballi – 580023.	From 12.12.2023 to till date F.No.35-1/2018-TS.III dt.18.12.2023 received from the Joint Secretary to the Gol, MoE, DoHE, New Delhi.
<b>Members:</b>	
<b>Director Ex-Officio</b> Prof. Prasad Krishna Director (Additional charge) NITK SURATHKAL	From 25.08.2022 to 14.06.2023
Prof. Bhallamudi Ravi Director NITK SURATHKAL.	From 15.06.2023 to till date
<b>Nominee of the Central Government</b>	
Ms. Saumya Gupta, IAS (TR:2004) Joint Secretary (NITs) Dept. of Higher Education Ministry of Education (Shiksha Mantralaya) Govt. of India, Room No.203, C – Wing Shastri Bhavan, NEW DELHI – 110 001.	From 07.12.2021 to till date
Sh. Sanjog Kapoor Joint Secretary & Financial Advisor Integrated Finance Bureau, Ministry of Education, (Shiksha Mantralaya) Govt. of India, 120-C, Shastri Bhawan, New Delhi - 110 001.	From 06.01.2023 to till date
<b>FC Member - Nominee of the State Government</b>	
Shri Aprameya Radhakrishna CEO & Co-founder of Koo, No.101, Van Gogh's Garden, Kasturba Cross Road, Bengaluru – 560001.	From 29.01.2022 to 03.10.2023 Notification No: ED/252/TEC/2021 (B) dated 03.10.2023 received from the Deputy Secretary to Government, Higher Education Department, Bengaluru.
Shri K. Ajith Kumar Rai Founder and Chairman	From 03.11.2023 to till date Notification No. ED/252/TEC/2021 dated 03.11.2023 received from the Under

Suprajit Group of Companies, Tara, 144/1, 4th Main, Defence Colony, Indiranagar, Bengaluru – 560038.	Secretary to Government, Higher Education Department (Technical), Bengaluru.
<b>Prof. U. Shripathi Acharya</b> Professor, Dept. of Electronics & Communication Engg. NITK SURATHKAL.	From 10.11.2022 to 09.11.2024
<b>Member Secretary</b> <b>Shri K. Ravindranath</b> Registrar, NITK SURATHKAL	Till date

### 2.3.4 Building and Works Committee

Designation	Name & Address
<b>The Director – ex-officio Chairman</b>	<b>Prof. Prasad Krishna</b> Director (Additional Charge), NITK SURATHKAL Term (From 25.08.2022 to 14.06.2023)
	<b>Prof. Bhallamudi Ravi</b> Director, NITK SURATHKAL, Term (From 15.06.2023 to till date)
Director or Deputy Secretary or his nominee dealing with the NITs in the Ministry and Director or Deputy Secretary or his nominee dealing with the Finance of NITs in the Ministry - as ex-officio members of the Central Government.	<b>Members (Ex-officio):</b> <b>Ms. Veena Dunga</b> Deputy Secretary (NITs), Govt. of India Department of Higher Education Ministry of Education (Shiksha Mantralaya) Room No. 429A-C, Shastri Bhavan, New Delhi – 110001. Term (30.08.2022 to till date)
	<b>Shri Anil Kumar,</b> Director – Finance, Ministry of Education, Govt. of India, Dept. of Higher Education, No. 213-C, Shastri Bhavan, New Delhi – 110001 Term (Till Date)
Dean, Planning and Development or similar position – Member.	<b>Prof. Babu Narayana K S,</b> Dean (P&D), NITK Surathkal. Term (Upto 04.10.2023)
	<b>Prof. Gangadharan K. V.,</b> Dean (P&D), NITK Surathkal. Term (05.10.2023 to two years)
One member nominated by the Board of Governors.	<b>Prof. Lakshman Nandagiri,</b> Professor, Dept. of Water Resources & Ocean Engineering, NITK Surathkal Term (Nominated vide Ref. No.67.3.3/ 67th meeting dated 12-08-2022; from 12.08.2022, three years)
One expert each from the Civil and Electrical Engineering wing of the Central or State Government or any autonomous body of repute – Member.	<b>Shri Suneet K Dadheech</b> Superintending Engineer cum Project Manager, CPWD, NITKS Project Circle Office, NITK campus, Mangaluru – 575025 Term (Nominated vide Ref. No.67.3.3/ 67th meeting dated 12-08-2022 from 12.08.2022 to three years)
	<b>Sri Ravikanth Kamath</b> Superintending Engineer (E), Karnataka Power Transmission Corporation Limited, Works and Maintenance Circle, Maroli, Kulashekar, Mangaluru – 575005



	Term (Nominated vide Ref. No.67.3.3/ 67th meeting dated 12-08-2022 from 12.08.2022 to three years
<b>Registrar- Member Secretary.</b>	<b>Shri K. Ravindranath</b> Registrar NITK SURATHKAL Term (Till Date)

### 2.3.5 Senate

Name	Position
Prof. Prasad Krishna Director (Additional Charge), NITK Surathkal. Director (On lien), NIT Calicut.	Chairman from 25.08.2022 to 14.06.2023
Prof. Bhallamudi Ravi Director, NITK Surathkal.	Chairman from 15.06.2023 to till date
Dr. Rajesh M Hegde	External Member (from 03.10.2022)
Dr. Neelima M. Gupte	External Member (from 03.10.2022)
Dr. Debashish Acharya	External Member (from 03.10.2022)
Dr. Dwarakish G S	Member
Dr. G. C. Mohan Kumar	Member
Dr. Gangadharan K. V.	Member
Dr. Udaya Bhat K.	Member
Dr. Shrikantha S. Rao	Member
Dr. A. Chitharanjan Hegde	Member
Dr. I. Regupathi	Member
Dr. M. B. Saidutta	Member
Dr. (Ms.) Vidya Shetty K.	Member
Dr. Raj Mohan B.	Member
Dr. P. E. Jagadeesh Babu	Member
Dr. Prasanna Belur Devarabhata	Member
Dr. Keyur Raval	Member
Dr. Hari Prasad Dasari	Member
Dr. Hari Mahalingam	Member
Dr. Darshak Rameshbhai Trivedi	Member
Dr. A. Nityananda Shetty	Member
Dr. Badekai Ramachandra Bhat	Member
Dr. Denthaje Krishna Bhat	Member
Dr. Arun Mohan Isloor	Member
Dr. Uday Kumar Dalimba	Member
Dr. Subhash C. Yaragal (HoD)	Member
Dr. Babu Narayanan K. S.	Member (Superannuation on 30.11.2023)
Dr. M. C. Narasimhan	Member
Dr. Katta Venkataramana	Member
Dr. Varghese George	Member
Dr. S. Shrihari	Member
Dr. Sitaram Nayak	Member
Dr. (Mrs.) Jayalekshmi B. R.	Member
Dr. Bibhuti Bhusan Das	Member
Dr. Basavaraju Manu	Member
Dr. Arun Kumar Thalla	Member

Dr. C. P. Devatha	Member
Dr. Gangadhar Mahesh	Member
Dr. Suresha S. N.	Member
Dr. Sunil B. M.	Member
Dr. Manu Basavaraju (HoD)	Member
Dr. K. Chandrasekaran	Member
Dr. Annappa	Member
Dr. (Mrs.) P. Santhi Thilagam	Member
Dr. Shashidhar G. Koolagudi	Member
Dr. Alwyn Roshan Pais	Member
Dr. Neelavar Shekar Vittal Shet	Member
Dr. U. Shripathi Acharya	Member
Dr. (Mrs.) Sumam David S.	Member
Dr. M. Shankarnarayana Bhat	Member
Dr. Laxminidhi T.	Member
Dr. John D'Souza	Member (Superannuation on 30.04.2024)
Dr. Ashvini Chaturvedi	Member
Dr. Ramesh Kini M.	Member
Dr. Dattatraya Narayan Gaonkar	Member
Dr. Udaykumar R. Yaragatti	Member
Dr. Gururaj S. Punekar	Member
Dr. K. Panduranga Vittal	Member
Dr. B. Venkatesa Perumal	Member
Dr. Shubhanga K. N.	Member
Dr. Debashisha Jena	Member
Dr. (Mrs.) Vinatha U.	Member
Dr. Jaidhar C D (HoD)	Member (upto 23.11.2023)
Dr. Geetha V. (HoD)	Member (from 24.11.2023)
Dr. G. Ram Mohana Reddy	Member
Dr. Ananthanarayana V. S.	Member
Dr. P. Sam Johnson	Member
Dr. A. Kandasamy	Member
Dr. Suresh M Hegde	Member (Superannuation on 29.02.2024)
Dr. Santhosh George	Member
Dr. B. R. Shankar	Member
Dr. Murulidhar N. N.	Member
Dr. Shyam S. Kamath	Member
Dr. Murugan Veerapazham	Member
Dr. R Madhusudhan	Member
Dr. Pushparaj Shetty D.	Member
Dr. S. M. Murigendrappa	Member
Dr. Prasad Krishna (on lien to NIT Calicut as Director)	
Dr. Narendranath S (on lien to NERIST Itanagar as Director)	
Dr. S. M. Kulkarni	Member
Dr. Ravikiran Kadoli	Member
Dr. Hemantha Kumar	Member
Dr. Anish S.	Member
Dr. Srikanth Bontha	Member
Dr. P. Jeyaraj	Member
Dr. Ramesh M. R.	Member

Dr. Subhaschandra Kattimani	Member
Dr. Sharnappa Joladarashi	Member
Dr. Kumar G. N.	Member
Dr. Veershetty Gumtapure	Member
Dr. (Mrs.) Sathyabhama A.	Member
Dr. H. Shivananda Nayaka	Member
Dr. Arun M.	Member
Dr. Ravishankar K S (HoD)	Member (up to 12.01.2024)
Dr. Kumkum Banerjee (HoD)	Member (from 15.01.2024)
Dr. KNarayan Prabhu	Member
Dr. Jagannatha Nayak	Member
Dr. Anandhan Srinivasan	Member
Dr. Subray R. Hegde	Member
Dr. Harsha Vardhan	Member
Dr. V. R. Sastry	Member (VRS from 30.04.2023)
Dr. M. Govinda Raj	Member
Dr. Karra Ram Chandar	Member
Dr. Aruna Mangalpaday	Member
Dr. Kartick Tarafder	Member (from 24.11.2023)
Dr. N. K. Udayashankar	Member
Dr. M. N. Satyanarayan	Member
Dr. Nagaraja H. S.	Member
Dr. Ajith Kulangara Madam	Member
Dr. Sheena (HoD)	Member
Dr. K. B. Kiran	Member
Dr. Shashikantha Koudur	Member
Dr. Pradyot Ranjan Jena	Member
Dr. Ritanjali Majhi	Member
Dr. S. Pavan Kumar	Member
Dr. K. Varija	Member
Dr. B M Dodamani	Member
Dr. Lakshman Nandagiri	Member
Dr. Kiran G. Shirlal	Member
Dr. A. Mahesha	Member
Dr. (Mrs.) Amba Shetty	Member
Dr. Manu	Member
Dr. Ramesh H.	Member
Dr. Nasar	Member
Chairman - CCC / System Manager, CCC	Member
Dr. Mallikarjuna Angadi, Librarian	Member
Shri K. Ravindranath, Registrar	Secretary

### 2.3.6 Board of Studies (BOS - UG/PG/Research)

Constitution:	
Dean (Academic)	Chairman
Dean (Faculty Welfare)	Member
Dean (Planning & Development)	Member
Dean (Students' Welfare)	Member

Dean (Research & Consultancy)	Member
Dean (Alumni and Corporate Relations)	Member
Registrar	Member
H.O.D. of each department/their nominee	Members
Librarian, Central Library	Member
BOG member representing the faculty	Member
Three representatives from the premier academic institutions such as IIT, NIT, IISc IIM, etc. belonging to the Southern region	Members
Assistant Registrar (Academic)	Secretary



## 3. ADMINISTRATION

### 3.1 Policy Makers

#### DIRECTOR

Prof. Bhallamudi Ravi

#### DEANS

Academic

Prof. Dwarakish G S

Faculty Welfare

Prof. T. Laxminidhi

Planning & Development

Prof. Gangadharan K V

Alumni and Corporate Relations

Prof. Shreekantha S. Rao

Research & Consultancy

Prof. Udaya Bhat

Students Welfare

Prof. A Chitharanjan Hegde

#### ASSOCIATE DEANS

Faculty Recruitment

Dr. Prasanna B D

Staff Welfare

Dr. Kumar G N

Alumni Network

Dr. Sowmya Kamath S

Corporate Relations

Dr. Hari Prasad Dasari

(P&D) - Development & Maintenance

Dr. Suresha S.N.

(P&D) - Planning & Procurement

Dr. Gangadhar Mahesh

Sponsored Research

Dr. Shashidhar G. Koolagudi

Academic (UG Programs)

Dr. Arun M

Post Graduate & Research

Dr. Vinatha U

Parent Interface

Dr. Rekha S

Testing & Consultancy

Dr. Sunil B M

Sports & SAC

Dr. S Pavan Kumar

#### PROFESSOR IN-CHARGE

Student Internships

Dr. Arun M Isloor

MOUs & Agreement

Dr. Vasudev M

Institute Website

Dr. Biju R Mohan

Reservation Cell

Dr. Veershetty Gumtapure

Staff Recreation Club

Dr. Shashikantha Koudur

Communication Networks

Dr. B. R. Chandavarkarr

Continuing Education

Dr. Ashvini Chaturvedi

Transdisciplinary R&D

Dr. Pruthviraj U

Healthcare Centre

Dr. Saumya Hegde

Fellowships & Scholarships

Dr. Sharanappa Joladarshi

Central Research Facility

Dr. Keyur Raval

Brochure & Newsletters

Dr. (Ms) Dhishna Pannikot

Staff Training Programs

Dr. Bhawana Rudra

S&T Ent'ship Park

Dr. Subraya R Hegde

Admission & Enrolment

Dr. Uday Kumar D

Institute Innovation Council

Dr. Sreevalsa Kolathayar

Learning Resources

Dr. Shyam S Kamath

Civil Infrastructure

Dr. Ramesh H

Electrical Infrastructure

Dr. Venkatesa Perumal

R&D Equipment & Facilities

Dr. P Jeyaraj

University Linkages

Dr. Pradyot Ranjan Jena

Women Welfare Cell

Dr. Rashmi Uchil

Housing & Hospitality

Dr. Shyam Lal

Indian Knowledge System

Dr. Satyabodh M Kulkarni

Centre For Continuing Education & QIP

Dr. Neelavar Shekar Vittal Shet



CIC-Cell  
Commercial Complex Establishment  
Media Advocacy & PR  
Accreditation & Ranking  
Garden & Horticulture

Dr. Pathipati Srihari  
Dr. Gangadharan K V  
Dr. Saikat Dutta  
Dr. Manu  
Dr. Aparna P

## 3.2 Executives

### REGISTRAR

Sri K. Ravindranath

### JOINT REGISTRAR (ACCOUNTS)

Sri Y RamMohan

### ASSISTANT REGISTRAR

Purchase  
Administration  
Accounts  
Academic (i/c)

Mr. Bansod Pritam Ramesh  
Mr. Gaurav Chowdhury  
Ms. Priyanka Dattanand Amadalli  
Mrs. Sandhya

### SAS OFFICERS

Dr. Hem Prasad Nath  
Dr. Manoj

## Other Committees:

### 1. Quarters Allotment Committee

**Prof. B. Ravi,**  
Director  
President

**Prof. G C Mohan Kumar,**  
Dean (Faculty Welfare)  
Chairman

**Dr. Gangadhar Mahesh,**  
Professor-in-charge (Civil Infrastructure)  
Member/Secretary

**Prof. U Shripathi Acharya,**  
Senior. Internal BOG Member  
Member

**Dr. Subrahmanya K,**  
Superintending Engineer (i/c)  
Member

**Prof. P. Sam Johnson,**  
Associate Dean (Faculty Welfare) – 1  
Member

**Dr. Nagendrappa H,**  
Liaison Officer – SC/ST Cell  
Member

**Mrs. Vani M,**  
Associate Professor, Dept. of CSE  
Member

**Dr. Kedarnath Senapathi,**  
Grievance Redressal Officer (PwD)  
MACS Dept.  
Member

**Mr. Gaurav Chowdhury**  
Asst. Registrar (Admin)  
Member

**The President**  
NITK Employees Association (R)  
Member

**President**  
NITK Non-Teaching Employees Association(R)  
Member

## 2. Institute Grievance Redressal Committee

**Dr. Murulidhar N N,**

Professor,  
Dept. of MACS  
Chairman

**Dr. S M Murigendrappa,**

Professor,  
Dept. of Mechanical Engg.  
Member

**Ravishankar K S,**

Associate Professor,  
Dept. of Metallurgical & Materials Engg.  
Member

**Nagendrappa H,**

Asst. Professor Grade- 1,  
Dept. of E&E Engg.  
Member

**Mrs. Rashmi Uchil,**

Asst. Professor Grade – 1,  
School of Humanities,  
Social Sciences and Management  
Member

**Dinesh Naik,**

Asst. Professor,  
Dept. of Information Technology  
Member

**Pathipati Srihari,**

Asst. Professor Grade – 1,  
Dept. of E&C Engg.  
Member

**Kedarnath Senapati,**

Asst. Professor Grade – 1,  
Dept. of M.A.C.S.

**Shri. P N Subrahmanya,**

Asst. (SG-II)  
Establishment & General Section  
Member

**Mr. Gaurav Chowdhury,**

Asst. Registrar (Admin)  
Convener

## 3. Security Committee

- |                          |                     |                              |
|--------------------------|---------------------|------------------------------|
| • Dean (Faculty Welfare) | • Chairman, CCC     | • Faculty i/c Estate & Works |
| • Dean (P&D)             | • Prof. i/c Hostels | • Faculty i/c Ele. Works     |
| • Dean (SW)              | • Resident Engineer | • Faculty i/c Security       |
| • Registrar              | • Joint Registrar   | • Security Officer           |

## 4. Library Advisory Committee

**Prof. Shyam S. Kamath**

Professor In-Charge,  
Learning Resources

**Dr. Subrahmanya K.**

Member (Water Resources & Ocean Engg)

**Dr. B. M. Kunar**

Member (Mining)

**Dr. Pushpajit Khaire**

Member (M.A.C.S.)

**Dr. Shashi Bhushan Arya**

Member (Met. & Mat. Engg.)

**Dr. P. Shrihari**

Member (Electronic & Comm.)

**Dr. Suprabha K. R.**

Member (SHSSM)

**Dr. Gangamma S.**

Member (Chem. Engg.)

**Dr. Saikat Dutta**

Member (Chemistry)

**Dr. Ajith K. M.**

Member (Physics)

**Dr. B R Chandavarkar**  
Member (Computer Science)

**Dr. Arumuga Perumal**  
Member (Mech. Engg.)

**Dr. Anupama Surenjan**  
Member (Civil Engg.)

**Dr. Mallikarjun Angadi**  
Secretary (Central Library)

**Dr. Kiran M.**  
Member (Inf. Tech.)

**Dr. Girisha H. Navada**  
Member (Electrical & Electronics)

**Mrs. Anusuya C.**  
Member (Central Library)

## 5. Sports Advisory Committee

**Director**  
President

**Dean (FW)**  
Member

**Joint Registrar**  
Member

**Associate Dean (SW) – II**  
Member

**Professor-in-charge of Hostel Affairs**  
Member

**Prof. B Venkatesa Perumal,**  
Dept. of E&E Engg.  
Member

**Dr. Nagendruppa H,**  
Dept. of E&E Engg.  
Member

**Dr. Shyam Lal,**  
Dept. of E&C Engg.  
Member

**Dr. Shwetha H R,**  
Dept. of WR&OE  
Member

**Dr. Hem Prasad Nath,**  
SAS Officer  
Member

**Students Council President**  
Member

**Sports Secretary**

**Dean (SW)**  
Chairman

**Registrar**  
Member

**Associate Dean (SW) – I**  
Member

**Resident Engineer In-charge**  
Member

**Prof. S M Murigendrappa,**  
Dept. of Mechanical Engg.  
Member

**Dr. Vasudeva M,**  
Dept. of Mechanical Engg.  
Member

**Dr. S Pavan Kumar,**  
School of Humanities, Social Sciences and  
Management  
Member

**Dr. Kiran M,**  
Dept. of IT  
Member

**Shri. Shivaram A,**  
Sr. Sc.Asst. P.D.  
Member

**Librarian**  
Member

**Vice President**  
Member

**R C Convenor**

Member

**All Captains**

Member

Member

**Dr. Manoj,**

SAS Officer

Member Secretary

## 6. Internal Complaints Committee

**Dr. Rashmi Uchil**

Associate Professor

Chairperson

**Dr. Annappa**

Professor,

Dept. Of Computer Science & Engg.

Member

**Dr. Senthil Thilak**

Asst. Professor Grade – I

Dept. of MACS

Member

**Dr. (Ms.) Khyati Verma,**

Asst. Professor Grade –II

Dept. of Mechanical Engg.

Member

**Shri. D. Murugavelu,**

Superintendent (SG-II), Accounts – III

Member

**Ms. Wilma Irene Pinto**

Superintendent

Member

**Mrs. Manjula V. Prasad,**

Ambagilu, Udupi

External Member

## 7. Health Care Committee

**Dean (Faculty Welfare)**

Chairman

**Warden,**

Girls Hostel

Member

**Professor in-charge (Hostel Affairs)**

Member

**Liaison Officer**

SC/ST Cell

Member

**Prof. G Ram Mohan Reddy**

Member

**Prof. Pavan Kumar**

Member

**Dr. C P Devatha,**

Member

**Ms. Gayathri Rao K**

Member

**Joint Registrar**

Member

**Supdt. Accounts III**

Member

**President Student's Council**

Member

**Girls Representative**

Member

**Dr. M L Balabhaskara**

Medical Officer

Member

**Dr. (Mrs.) Shrimathi B**

Medical Officer

Secretary



## 4. DEPARTMENTS/ CENTERS

### 4.1 Academic Programmes

#### I. B.TECH. (Undergraduate Programme) – Eight semesters

- Artificial Intelligence
- Chemical Engineering
- Civil Engineering
- Computational Data Science
- Computer Science & Engineering
- Electrical and Electronics Engineering
- Electronics & Communication Engineering
- Information Technology
- Mechanical Engineering
- Metallurgical & Materials Engineering
- Mining Engineering

#### II. M.Tech. (Postgraduate Programme) – Four Semesters

- Chemical Engineering
- Communication Engineering and Networks
- Computational and Data Science
- Computer Science & Engg
- Computer Science & Engg- Information Security
- Construction Technology and Management
- Environmental Engg.
- Environmental Science and Technology
- Geoinformatics
- Geotechnical Engg.
- Industrial Biotechnology
- Information Technology
- Manufacturing Engg
- Marine Structures
- Materials Engg
- Materials Process Technology
- Mechanical Design
- Mechatronics Engg
- Nanotechnology
- Power & Energy Systems
- Power Electronics and Control for Electric Vehicle (Online Programme)
- Signal processing and Machine Design
- Structural Engg.
- Thermal Engg
- Transportation Engg.
- VLSI Design
- Water Resources Engineering and Management

#### III. M.Tech. by Research:

In all the above M.Tech Programmes as well as in Rock Excavation Technology and Management in the Department of Mining Engineering



**IV. M.C.A. (Master of Computer Applications) - Six semesters**

**V. M.B.A. (Master of Business Administration) - Four semesters**

**VI. M.Sc. (Four semesters)**

- Chemistry
- Physics

**VII. Ph. D. Programme:**

Ph.D. Programmes are offered in all 14 Departments in various streams and interdisciplinary specializations.

## 4.2 Academic (Admission) Calendar (2023 – 24)

Programmes	Admission Commenced on	Admission closed on
B.Tech.	16.08.2023	20.08.2023
M.Tech.	21.08.2023	24.08.2023
M.Tech. by Research/Spon.	03.07.2023	11.07.2023
MCA	25.08.2023	25.08.2023
M.B.A.	20.06.2023	27.06.2023
M.Sc. (Physics& Chemistry)	21.08.2023	24.08.2023
Ph.D	03.07.2023	11.07.2023

## 5. AWARDS AND DISTINCTIONS

### 1. DEPARTMENT OF CHEMISTRY

- ❖ Two Faculties are in the Top 2% scientists in the world (Harvard, USA)
- ❖ The research article of Mr. Nagaraj K, Prof. A Nityananda Shetty and Dr. Darshak R Trivedi from the Department of Chemistry, titled "Colorimetric Chemosensors for the Selective Detection of Arsenite over Arsenate Anions in Aqueous Medium: Application in Environmental Water Samples and DFT Studies," was featured on the front cover page of the *Analytica Chimica Acta* journal (Publisher: Elsevier, Q1 Journal, Impact Factor: 6.2), Volume 1265, July 2023.
- ❖ The research article of Mr. Nagaraj K, Prof. A Nityananda Shetty and Dr. Darshak R Trivedi from the Department of Chemistry, titled "Development of multi-analyte responsive sensors: Optical discrimination of arsenite and arsenate ions, ratiometric detection of arsenite, and application in food and water samples" was featured on the inside front cover page of the *RSC- Sensors & Diagnostics* journal, Volume 3, January 2024.
- ❖ Mr. Nagaraj K (187CY003), Ph.D. student of the Department of Chemistry under the guidance of Dr. Darshak R Trivedi and Prof. A Nityananda Shetty received the best poster award in "International Conference on Frontier Areas of Science and Technology (ICFAST-2023)" organized by Shivaji University, Kolhapur and Indian JSPS Alumni Association (IJAA) on 08-09 September 2023.

### 2. DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- ❖ Sunil Mandal and Dr Prajof P received the Best Paper award for a paper titled "A Novel Non-Isolated High-Gain Boost DC-DC Converter with Single Switch and Minimum Component Count" at the 3rd IEEE International Conference Power, Control and Computing Technologies (ICPC2T) 2024.
- ❖ Dr. Debashisha Jena, Professor, Department of Electrical and Electronics Engineering was awarded the IETE-Gowri Memorial Award-2023 for his paper titled "A Correlative Investigation of impedance Source Networks: A Comprehensive Review" in 66th Annual Convention of IETE on September 15-17, 2023.
- ❖ Dr. Debashisha Jena, Professor, Department of Electrical and Electronics Engineering was recognized among the top 2% of scientists globally for 2023 by Stanford University.
- ❖ Best Paper Award to Mr. Pratap Kumar and Dr. Krishnan C M C awarded Best Paper award for a paper titled "A Comparison of Different Signal Processing Techniques for Upper Limb Muscle Activity Onset Detection using Surface Electromyography" at 3rd IEEE International Conference on Artificial Intelligence and Signal Processing (AISP)-2023.
- ❖ Ms. Akanksha Sinha, B. Tech EEE Department (221EE203) has been selected for the prestigious Women in Tech Program by NXP.
- ❖ Mr. Bodke Yash Nilesh, B. Tech EEE Department (Roll No.211EE114) has been selected for the award of "Vijaya Kala T D Scholarship".

#### Notable Achievements: Achievements during the year

- ❖ The National Board of Accreditation (NBA) granted 6-year accreditation status (2022-23 to 2027-28) to the undergraduate program B-Tech in Electrical and Electronics Engineering offered by the Department of E&E.
- ❖ Dr. Gururaj S. Puneekar was invited member of the Expert Review Committee meeting at MVJ College of Engineering, Bangalore.

### 3. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- ❖ Dr. Annappa: Chairman, CDC
- ❖ Dr. Alwyn Roshan Pais: President, NITK English Medium School
- ❖ Dr. Shashidhar G Koolagudi: Associate Dean, Sponsored Dean.
- ❖ Dr. Saumya Hegde: Professor-in-charge, Healthcare centre
- ❖ Dr. B. R. Chandavarkar: Professor In-Charge, Communication Networks
- ❖ Dr. Mohit P Tahiliani: Faculty-in-charge, CCC
- ❖ Dr. Basavaraj Talawar was appointed as Faculty Advisor of HackVerse 4.0

### 4. DEPARTMENT OF MINING ENGINEERING

- ❖ Prof. K. Ram Chandar received the Prof. H.R. Anireddy Memorial Award on 19th Feb-2024 at Satna, Madhya Pradesh, awarded by: The Indian Mining & Engineering Journal

### 5. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- ❖ Pro. S. Anandhan Received the IEI Young Engineer Award on Engineers' Day (15<sup>th</sup> Sep. 23) from the Institution of Engineers (India), Mangalore chapter. He is the recipient of the IOP Trusted Reviewer status from the Institute of Physics Publishing, UK in January 2024. This status is awarded only to the very best peer reviewers (top 15% of the reviewers).
- ❖ Dr. Saumen Mandal, Winner of "NanoArtography Competition 2023: The Art of Capturing Beauty at the Nanoscale" to Mr. Lakkimsetti Lakshmi Praveen, working under the guidance of Dr. Saumen Mandal, organized by Purdue University, USA on 30th September 2023
- ❖ "Metallography Contest Award" to Mr. Mahin Saif Nowl, working under the guidance of Dr.
- ❖ Saikat Dutta and Dr. Saumen Mandal, in the International Conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling (ICAM5-2023) (September 22nd – 23rd, 2023), organized by The NIT Warangal.
- ❖ Best paper award in "International Conference on Women in Electrochemistry (ICWEC 2023), Electrochemical Society of India, April 7-8, 2023, IISc Bengaluru, India
- ❖ Dr. Selvakumar Murugesan secured Alexander von Humboldt's Renewed Research Stay – 2023.

#### Notable Achievements:

- ❖ Satvik R Kashyap (2010330201MT049), a student of the department, secured All India rank 67 in GATE 2024.
- ❖ Dilip G. - Gold Medalist in the All India Inter NIT Table Tennis Tournament held at NIT Jamshedpur
- ❖ Kiran Seetharam - Gold Medalist in the All India Inter NIT Table Tennis Tournament held at NIT Jamshedpur
- ❖ Fajal - Gold Medalist in All India Inter NIT Bodybuilding Tournament held at NIT Surat & NIT Durgapur
- ❖ Vinayak Mishra – 1<sup>st</sup> Place in All India Inter NIT Basketball Tournament held at NIT Jaipur
- ❖ Neelakanth M Chavan - Runner up in All India Inter NIT Kho-Kho Tournament held at NIT Warangal
- ❖ Neelakanth M Chavan – Second Runner up in All India Inter NIT Kho-Kho Tournament held at NIT Rourkela
- ❖ Diwakar Pandey - 3rd Place in All India Inter NIT Cricket Tournament Held at NIT Trichy.

### 6. DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

- ❖ Best Paper Award to Mrs. Aparna Panda in WOSC-2024 under the guidance of Dr. D. Karmakar & Dr. Manu at World Ocean Science Congress (WOSC 2024) on the theme of Focal Theme: Sustainable Utilization of Oceans in Blue Economy.

- ❖ VGST, GoK research project funding to Dr. Shwetha H R and Dr. Shyam Lal  
PI: Dr. Shwetha H R, Assistant Professor, Dept. of Water Resources and Ocean Engineering,  
Co-Investigator: Dr. Shyam Lal, Associate Professor, Dept. of E & C Engineering.  
Project Title: Quantitative retrieval and spatio-temporal analysis of soil quality parameters using  
Geospatial datasets and machine learning techniques in Western Plains and Ghat regions of  
Karnataka.



## 6. ADDITION TO BUILDING INFRASTRUCTURE

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The building vacated by the Dept. of Computer Science and Engg. (While moving to a new building) has been allocated to the Dept. of E&C Engg.

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The department has procured the following items.

#### **Servers:**

NVIDIA DGX –1 with 8 nos' of V100 32GB GPU, Single 20-core Intel Xeon, E5-2698 v4 2.2GHz, 512GB 2133 MHz DDR4 RDIMM, 4 no's x 1.92TB SSD RAID 0, 8 x Tesla V100 32GB each with Nvlink offering: 1 PetaFLOPS, Ubuntu Linux

C-NVIDIA DGX- 1 with 8 nos' of V100 32GB GPU, Single 20-core Intel Xeon, E5-2698 v4 2.2GHz, 512GB 2133 MHz DDR4 RDIMM, 4 no's x 1.92TB SSD RAID 0, 4 x Tesla V100 32GB each with Nvlink offering: 480TFLOP (FP16), Ubuntu Linux.

### DEPARTMENT OF MINING ENGINEERING

Rock Mechanics Lab upgraded with new equipment i.e., Soil consolidation equipment, impact compactor equipment, Concrete permeability equipment, Soil penetration tester, Compression testing machine, Rock shear box equipment, and Aggregate impact testing equipment.



## 7. RESEARCH, DEVELOPMENT, AND CONSULTANCY PROJECTS

### 7.1 R & D Projects (Ongoing, Sanctioned, Completed)

#### 1. DEPARTMENT CHEMICAL ENGINEERING

- ❖ Development of Electrospun Ceria-based Nanofibers for Diesel Soot Oxidation Activity Sponsored by SERB-CRG. Principal Investigator: Prof. Hari Prasad Dasari at the cost of Rs. 36.57 Lakhs.
- ❖ CSR Grant from HEFA: Chito-oligosaccharides production from the enzymatic route, 18 lacs, (June 2022 to June 2024) Principal Investigator: Dr. Keyur Raval
- ❖ DST - CRG Investigation on Functionalised-Graphene-Oxide Anchored Arbitrator in PANI/PS based Polymer Electrolyte Membrane for Fuel Cell Application (40 L Co=PI)
- ❖ Carbon Capture Utilization and Storage – Third National level Centre of Excellence 5.35 Cr (P.I.)
- ❖ DST Joint Research Grant under Water Technology Initiative (WTI) sanctioned to Prof. Vidya Shetty K for Collaborative Research Project with IIT Bombay; Project Title: “Integrated Photocatalytic and Membrane Bioreactor Process for Effective Removal of Emerging Contaminants and Disinfection”
- ❖ Total funding: 72.32 lakhs: NITK (Rs.22.8 lakhs); IITB (Rs.49.5 lakhs)
- ❖ Duration: Three years (January 2021–December 2023) Extension granted by DST till July 2024
- ❖ Dr. Jagadeeshbabu has received a SERB - CRG grant of 40 Lakhs (Co-PI: Dr. Raj Mohan B.)
- ❖ Dr. Jagadeeshbabu DRDO- Design and Development of Affinity Based Sensors for the Detection of Radiological Compounds in Point of CBRN Emergencies using ZnO Nps Functionalized by Amidoxine and Mugenic Acid. (50 Lakh, Ongoing)
- ❖ Dr. Jagadeesh babu DST-SERB-CRG- PEM- Investigation on Functionalised-Graphene-Oxide Anchored Arbitrator
- ❖ in PANI/PS based Polymer Electrolyte Membrane for Fuel Cell Application (43 Lakh Ongoing)
- ❖ “Design and Optimization of Distributor and Flow Distribution of a Multiphase Trickle Bed Reactor Using 3D CFD Modelling” Chief-Investigator: Dr.B. Ashraf Ali Funding Agency: MRPL, Mangalore Sanctioned Amount: 11.564 lakh; Start date: Dec-2020, Completed date: Jan-2024

#### 2. DEPARTMENT OF CIVIL ENGINEERING

- ❖ Project title: New resilient breakwater for safety of Port and Harbour against Tsunami Sponsored by Ministry of Ports, Shipping and Waterways, Govt, of India. Principal Investigator: Dr. Babloo Chaudhary (2022-25).
- ❖ Project title: Pre-oriented Carbon Fibre Grid for Pozzolan based Low Energy Power Source by the National Technical Textiles Mission, Ministry of Textiles, Govt. of India. Principal Investigator: Dr. T Palanisamy (2023-2026)

#### 3. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

- ❖ Information Security Education and Awareness Phase-II-sponsored by DIT MCIT, PI: Dr. Alwyn Roshan Pais Co-PI: Dr. P. Santhi Thilagam, at the cost of 2.7 crore (Approx.), 2015-2023 (December)
- ❖ Speaker Recognition System for Kannada Language in Emotional Environment Sponsored by DST, PI: Dr. Shashidhar G Koolagudi at the cost of 37 Lakhs, 2019-2024
- ❖ Freelance Platform built on Blockchain in any Educational Institute in India sponsored by NITK-KREC Endowment Fund, PI: Dr. Sourav Kanti Addya, Co. PI: Dr. Mohit P Tahiliani at the cost of 17.70 Lakhs, 2022-2023 (06 months)
- ❖ Establishment and Pay Roll Module sponsored by CSD, PI: Dr. Sourav Kanti Addya, CO-PI: Dr. Biju R Mohan, Dr. Anand Kumar M, Dr. Basavaraj Talawar at the cost of 39.72 Lakhs, 2022-2024
- ❖ Logical Correctness for Batteryless Internet of Things., SERB, Bharat Sarkar, PI: Dr. Biswajit R. Bhowmik, at the cost of 20.01 Lakhs, 2022-2024



- ❖ Automatic Early Detection of Lung Cancer from LDCT Images based in Deep Neural Networks sponsored by SERB, PI: Dr. Annappa B., Co. PI: Dr. Jeny Rajan, at the cost of 29.55Lakhs, 2023-2026
- ❖ Enhancing the Security of SELinux/SEAndroid Policies sponsored by C3iHub, IIT Kanpur, PI: Dr. Radhika B S at the cost of 14.83 Lakhs, 2023-2025.
- ❖ Solmelu, sponsored by Robosoft Technologies Pvt. Ltd, PI: Dr. Saumya Hegde, Co-PI: Dr. Mohit P. Tahiliani, at the cost of 34.60 lakhs, 2023-24 (18 months)
- ❖ Enabling Multi-disciplinary and Broader Radio Applications for Community Empowerment (EMBRACE) sponsored by Robosoft Technologies Pvt. Ltd. PI: Dr. Pruthviraj U, Co-PI: Dr. Mohit P. Tahiliani, at the cost of 75.90 lakhs, 2024-2025 (One year)
- ❖ WiFi Performance and Diagnostics, sponsored by Zen Exim Pvt. Ltd., Ahmedabad, PI: Dr. Mohit P. Tahiliani, at the cost of 13.75 lakhs, 2024-2025 (One year)
- ❖ Design and Development of freelance marketplace using Web 3.0 Technology sponsored by Robosoft Technologies Pvt. Ltd PI: Dr. Mohit P. Tahiliani, Co-PI: Dr. Sourav Kanti Addya, at the cost of 21.00 lakhs, 2024-2025
- ❖ Intrusion Detection in Networks Slices and Software-Defined Networking sponsored by Ihub NTIHAC Foundation, IIT Kanpur. PI: Dr. Mahendra Pratap Singh, Co. PI: Dr. Alwyn Roshan Pais & Dr. Radhika B.S. at the cost of 36.33 lakhs, 2024-2027

#### 4. DEPARTMENT OF CHEMISTRY

- ❖ Olefin linked fluorescence enhanced covalent organic frameworks, SERB-SRG, 2021-2023, Dr. Lakshmi Vellanki
- ❖ Synthesis of carbo-and heterocycle-based novel hybrid polycycles and their application, SERB-CRG, 2021-2024, Dr. Beneesh P B
- ❖ Synthesis azulene-porphyrin conjugates and their exploration as anti-kasha-active fluorophores, SERB-CRG, 2021-2024, Dr. Vijayendra S Shetti
- ❖ Prawns shell-derived natural protein-based highly efficient UV protection for drug products, SERB, 2022-2025, Dr. Saikat Dutta
- ❖ Multi-scale modeling of membrane-active pH-dependent delivery peptides, DST Women Excellence Award, 2022-2025, Dr. Debashree Chakraborty
- ❖ Novel catalytic conversion of chitin biomass to furanics and levulinates via 5 – (actitoximethyl) furfural for a shell biorefinery, DST-SERB, 2022-2025, Dr. Saikat Dutta
- ❖ Green hydrogen by sea water electrolysis: potential initiative, NITK – KREC Endowment fund, 2022-2024, Dr. Saikat Dutta
- ❖ Design and development of moisture resistant, dopant-free hole transporting materials for perovskite solar cells, AISTDF-SERB, DST, 2021-2023, Dr. Uday Kumar Dalimba.

#### 5. DEPARTMENT ELECTRONICS AND COMMUNICATION ENGINEERING

- ❖ "Design and Development of S and L5 dual-band GaN HEMT based Low Noise Amplifier with built-in Antenna for NAVIC Receiver", sponsored by PES University, Bengaluru, Principal Investigator: Dr. Rashmi Seethur, Co-PI: Dr. Sandeep Kumar of Rs. 10.00 lakhs, (2023-2025).
- ❖ "Design and Fabrication of Lab-On-Chip Hybrid Plasmonic Slot Waveguide based Nanograting Gas Sensor" sponsored by CSIR, Govt. of India, Principal Investigator: Dr. Mandeep Singh; E&C Engg., at the cost of Rs. 26.25 lakhs, (2023-2026).
- ❖ "Development of low phase noise optoelectronic oscillator with phase compensation approach for radar application" sponsored by DRDO, Govt. of India, Principal Investigator: Dr. Mandeep Singh; E&C Engg., (Co-PI: Prof. M. Kulkarni; Co-PI at IIT (ISM) Dhanbad: Prof. Sanjeev Kumar Raghuwanshi;) at the cost of Rs. 30.046 lakhs, (2022-2025).

- ❖ "Speech technologies in Indian languages" sponsored by MeitY, Govt. of India, Principal Investigator: Dr. Deepu Vijayasenan; E&C Engg. (A Consortium project with IITM, IISc, IIT Goa and other HIEs) at the cost of Rs. 90.00 lakhs (NITK grant), (2022-2025).
- ❖ "Design and Development of Automated Software Tools for Early Forest Fire Detection and Burn Severity Analysis from Multi-Sensor Satellite Imagery Data" sponsored by IIRS (ISRO), Principal Investigator: Dr. Shyam Lal, Dr. Ragavendra B.S. and Dr. Aparna P.; E&C Engg., at the cost of Rs. 37.9 lakhs, (2022-2025).
- ❖ "Nanophotonic porous-silicon based nanostructures for ultra-fast methanol sensing at room temperature" sponsored by SERB-DST Govt. of India, Principal Investigator: Dr. Mandeep Singh; E&C Engg., at the cost of Rs 35.58 lakhs, (2022-2025).
- ❖ "Fractional order non-local Variational Regularization Models and their Applications in Image Processing" sponsored by SERB-DST Govt. of India, Principal Investigator: Dr. Bini A A at the cost of Rs 6.60 lakhs, (2022-2025).
- ❖ "Quantitative retrieval and spatiotemporal analysis of soil quality parameters using geospatial datasets and machine learning techniques in Western plains and Ghat Regions of Karnataka", sponsored by VGST, Principal Investigator: Dr. Shyam Lal; E&C Engg., at the cost of Rs. 40.00 lakhs, (2022-2024)
- ❖ "Design, Development of Harmonically Tuned GaN HEMT Power Amplifier Over Broadband" sponsored by ISRO Govt of India, Principal Investigator: Dr. Sandeep Kumar; E&C Engg., at the cost of Rs. 14.16 lakhs, (2022-2024).
- ❖ "Programmable photonic microwave signal generation using on-chip spectral shaper for satellite communication" sponsored by SAC-ISRO, Ahmedabad, Principal Investigator: Dr. Mandeep Singh; E&C Engg., at the cost of Rs. 22.51 lakhs, (2022-2024).
- ❖ "Engineering novel label-free multi-layer plasmonic nano-biosensor for DNA hybridization" sponsored by Department of Biotechnology (DBT), Ministry of Science and Technology, Govt. of India, Principal Investigator: Dr. Mandeep Singh; E&C Engg., at the cost of Rs. 57.49 lakhs, (2021 to 2026).
- ❖ "An affordable therapeutic solution for rehabilitation of cerebral palsy children with crouch gait" sponsored by SERB - DST, Govt of India Principal Investigator: Dr. Krishnan, Dr. Deepu Vijayasenan, Prof. Sumam David and Dr. Ranjith, jointly with KMC Mangalore at the cost of Rs. 59.75 lakhs, (2021-2024).
- ❖ "Design and Development of Nanoscale Integrated System Along with Conformal Antenna as Capsule Prototype for Wireless Capsule Endoscopy" sponsored by DST under the Programme of BDTD, DST, Govt. of India, Principal Investigator: Dr. Sandeep Kumar; E&C Engg., at the cost of Rs. 74.00 lakhs, (2021-2024).
- ❖ "Intel Embedded Initiative" sponsored by Intel Corporation. Principal Investigator: Prof. Sumam David S; E&C Engg., at the cost of Rs. 5.3 Lakhs (2011 till date).

## 6. DEPARTMENT ELECTRICAL AND ELECTRONICS ENGINEERING

- ❖ Bio Signal Processing System for the development of human-machine interaction sponsored by Ministry of Electronics & Information Technology, Meity, Government of India, PI: Dr Krishnan CMC, Rs. 25 Lakhs, 2019-2024.
- ❖ Smart Electric Vehicle Supply Equipment with improved Reconfigurability, Economic, Availability and Performance (REAP), DST-SERB Core Research Grant, PI: Dr. B Dastagiri Reddy, Co-PI: Prof. B V Perumal, Dr. Y Suresh, Dr. Vignesh V, Dr. Arun (Mech.), Rs. 60 Lakhs, 2021-2024.
- ❖ An affordable therapeutic solution for rehabilitation of cerebral palsy children with crouch gait, DST-SERB Core Research Grant, PI: Dr. Krishnan C. M. C. (Dept. of E&E) Co-PIs: Dr. Deepu Vijayasenan (Dept of E&C), Dr. Ranjith M (Dept. ME), Prof. Sumam David (Dept of E&C), Dr. Sheron Figarado

- (School of Electrical Sciences, IIT Goa), Prof. Unnikrishnan B (Department of Community Medicine, KMC Hospital Mangalore), at the cost of Rs. 60 Lakhs, 08/12/2021 to 08/11/2024.
- ❖ Design and Development of highly efficient and high voltage gain DC-DC converter for grid-connected PV System, Sponsored by Ind Arka Energy Pvt. Ltd., Bangalore, PI: Dr. Vignesh Kumar V. Co-PI: Prof. B. Venkatesaperumal, Rs. 8.07 Lakhs, 2022-2024.
  - ❖ Design and Development of Multi Input/Multi Output Power Converter Sponsored by Indian Space Research Organization (ISRO), PI: Dr. A. Karthikeyan SAC Co-PI(s)/ SAC Mentor(s): Mrs. Trapti Katiyar, Scientist/Engineer-SG, Shri Amit Kumar, Scientist/Engineer-SE, Space Applications Centre, ISRO, Ahmadabad, Rs. 26.13 Lakh, 2022 - 2024.
  - ❖ Laboratory scale demonstration of a Kite based wind power system Sponsored by the Science and Engineering Research Board (SERB), PI: Dr. A. Karthikeyan Co-PI: Dr. Yashwanth Kashyap, Dr. K. Manjunatha Sharma and Dr. Debabrata Karmakar, Rs. 51.05 Lakh, 2022 - 2025.
  - ❖ Design and Development of a Novel Universal Motor Drive cum Charging System with Advanced features sponsored by Core Research Grant (CRG) exponential Technologies Scheme, PI: Dr. Prajof P. Co-PI: Dr. B. Dastagiri Reddy, Rs. 38.50 Lakh, 2022-2025.
  - ❖ Semi-active damoing using controllable orifice for four-wheeler automobile sponsored by Science and Engineering Research Board (SERB), PI: Dr. Hemantha Kumar, Co-PI: Dr. Debashisha Jena, Dr. Ranjeet Kumar Sahu, at the cost of Rs. 28.18 Lakhs, 01/01/2022 to 01/01/2025.
  - ❖ Design and Development of Partial Power Processing Converter for Efficient Utilization of Solar PV System Sponsored by VGST Karnataka, PI: Dr. Md. Waseem Ahmad, Rs. 3 Lakh, March 2023.
  - ❖ Sophisticated Optimised DC-DC Converter for Charging Electric Vehicles Using Reliable GAN devices and Planar Magnetics Sponsored by Science and Engineering Research Board (SERB), Department of Science & Technology, Bharat Sarkar (Gol), PI: Dr. R. Kalpana, Rs. 30Lakhs, 2023-2026.
  - ❖ Solar PV-based electric vehicle charge with V2G and G2V capability for net-zero emission e-mobility Sponsored by Centres of Innovative Science, Engineering and Education (CISEE), PI: Dr. B. Venkatesaperumala, Co-PI: Dr. V. Vigneshkumar, Rs. 30 Lakhs, 2023-2025.
  - ❖ Design & Development of High-Power Multi-output GaN-based DC-DC converter with 70V input and Digital Control Loop Sponsored by ISRO Respond, PI: Dr. V. Vignesh Kumar, Co-PI: Dr. B. Venkatesaperumala, Dr. Vinatha U., Rs. 26.03 Lakhs, 2023-2025
  - ❖ Design of Inductive Coil structure and Controller for 3-Phase Wireless EV Charger Sponsored by L&T Technology Services, Bangalore, PI: Dr. Dharavathk Kishan, Co-PI: Dr. Prajof P. and Dr. Dastagiri Reddy, Rs.7.15 Lakhs, 2023-24.
  - ❖ Development and Validation of an India Solar Energy Nowcasting System (ISENS) in India in support of the local TSO and DSOs Sponsored by the Ministry of Power Through CPRI Bangalore. PI: Dr. Yashwant Kashyap, Co-PI: Dr. Manjunatha Sharma K, Prof. Panduranga Vittal K, and Prof. Shubhanga K N, Rs. 49.99 Lakhs, 2024.

## 7. DEPARTMENT OF INFORMATION TECHNOLOGY

### SANCTIONED:

- ❖ Project title: "Decision Support System for Delivery Management using Fetus Weight Estimation and Maternal Features", SERB Research project under TARE (File Number: TAR/2023/000447), Sanction Date 9/1/2024 - Prof. Ananthanarayana V S.
- ❖ A Project titled "Implementation of Quantum Support Vector Machine and Quantum Naive Bayes System for the Detection of Spam and Non-Spam Mails." Sponsored by MeITY for a Fund of 18209 USD from 25 April 2023 to March 2025 – Dr. Bhawana Rudra

#### ONGOING:

- ❖ SERB POWER Grant for "Artificial intelligence-based modeling and assessment of Saltwater intrusion phenomenon" Amount: Rs. 30 lakhs Grantee: DST SERB, Govt. of India, Duration: 2022-25, Role: PI: Dr. Shrutilipi Bhattacharjee Co-PI – Dr. Sowmya Kamath S
- ❖ A Project titled "Implementation of Quantum Support Vector Machine and Quantum Naive Bayes System for the Detection of Spam and Non-Spam Mails." Sponsored by MeITY for a Fund of 18209 USD from 25 April 2023 to March 2025 – Dr. Bhawana Rudra
- ❖ A project titled "Quantum Cryptanalysis using Grover's Quantum Search Algorithm." Sponsored by SAG, DRDO under CARS for a Fund of 51.25 Lakhs from 21 October 2023 to October 2025 - Dr. Bhawana Rudra
- ❖ Design and Development of Tea Plant Disease Detection Tool funded by SERB, GOI, India. Amount Rs. 2349402/- for 3 years duration from 11<sup>th</sup> January 2024 – 10<sup>th</sup> January 2027 – Dr. Jaidhar C D

#### COMPLETED:

- ❖ Microsoft AI for Earth Grant for "Spatial Data Analytics for Environmental Modeling" Grantee: Microsoft, Amount: US \$15,000, Duration: 2022-23, Role: PI– Dr. Sowmya Kamath S

### 8. DEPARTMENT MATHEMATICAL AND COMPUTATIONAL SCIENCES

- ❖ Fractional regularization methods for solving inverse and ill-posed problems and their applications, National Board of Higher Mathematics (NBHM), No. 020111/17/2020 NBHM (R.P)/ R & D II/8073, Ongoing, Rs. 4,61,500. (19-10-2020 to 18-10-2023)
- ❖ A retinex-inspired framework for intensity homogenization contrast upgradation and restoration of satellite and area images, Core Research Grant by SERB, Department of Science and Technology, Govt. of India, CRG/2020/000476., Ongoing, Rs. 2299264\-( 15-03-2021 to 14-03-2024)
- ❖ A study on non-linear ill-posed equations under weak conditions with emphasis on Parameter Identification Problem and Applications to Imaging, Core Research Grant by SERB, Department of Science and Technology, Govt. of India, No. CRG/2021/004776, Ongoing Rs.2123264\-(18-02-2022 to 17-02-2025)
- ❖ A study of frames for operators in Hilbert spaces, sponsored by SERB-TARE. Principal investigator: Prof. P. Sam Johnson; Rs.18,30,000/ (18.10.2022 to 17.10.2025)
- ❖ Hyers-Ulam stability of frames and operators in Hilbert spaces, sponsored by DAE-NBHM; Principal investigator: Prof. P. Sam Johnson; Rs.2,71,500 (04.05.2023 to 03.05.2026)
- ❖ Hyers-Ulam Stability of Unbounded Operators and  $C_0$ -Semigroup Operators, sponsored by SERB-MATRICES; Principal investigator: Prof. P. Sam Johnson; Rs.6,60,000/ (21.12.2023 to 20.12.2026)
- ❖ Fractional Regularization Methods for Solving Inverse-Ill-posed Problems and Their Applications, PI: Jidesh P., DAE, Cost: 4,61,500/- 2020-2023
- ❖ Non-local, non-convex TV minimization models and their Applications in Image restoration, PI: Jidesh P., SERB, Rs. 6,00,000/-, 2022-2025.
- ❖ Design and development of Message Authentication Codes for NavIC sponsored by ISRO. Principal Investigator: Dr Jothi Ramalingam. Budget Rs 23 Lakhs for the period Mar 2024 to March 2026.

### 9. DEPARTMENT MECHANICAL ENGINEERING

- ❖ An Experimental and Theoretical Investigation On Narrow Thermal Hysteresis Of Cu-Al-Be Based Sma Actuator For Vibration Isolation, Prof. S.M. Murigendrappa & Dr. S Kattimani, SERB, 16Lakhs.
- ❖ An Investigation into The Effects Of Induced Helicity In The Carotid Bifurcated Arteries On Patient-specific Models, Dr. Anish S and Dr. Mrityunjay Doddamani, SERB, 16.15Lakhs, 26/2/2020 to 25/2/2023.
- ❖ Ultrafine Grain Refinement Through Low Plasticity Burnishing On Waam of Mgalloy For Aerospace And Automotive Applications, Dr.A.S.S. BALAN, SYST-SEED, 16.09Lakhs, Jan 2020 to Jan 2023.

- ❖ Cost-Effective Enhanced Insulating Foams for Cold Storage Application, Dr. Mrityunjay Doddamani, ISHRAE, 30.62 Lakhs, 2020-2023.
- ❖ Particle migration and margination in bidispersed fluid flow through constricted channels, DST-SERB, PI: Dr. Arun M and Co-PI: Dr. Jagadeeshbabu, 29.6 lakhs, 2021-2024.
- ❖ Design and testing of robust, highly efficient, low polluting LPG porous burners for household applications, DST, PI: Dr. Parthasarathy P and Co-PI: Dr. Arun M, 33 lakhs, 2020-2023.
- ❖ Evaluation of macroscopic properties of ideal porous media for their use in solar reactors and low-emission combustors with the help of experiments and CFD simulations, DST-SERB, Dr. Parthasarathy P, 15 lakhs, 2021-2023.
- ❖ Additive Manufacturing of Large Size Metal Components with Wire & Powder Hybrid Direct Energy Deposition (WP-DED) Process, DST-SERB (Exponential Technologies), PI: Prof. Surya Kumar, IIT Hyderabad and Co-PI: Dr. Srikanth Bontha, 76.88 Lakhs, 2021-2023.
- ❖ Development of biodegradable microperforated panel with a nonuniform cross section through 3D printing for sound absorption application, CRG-DST, PI: Dr. P Jeyaraj and Co-PI: Dr. Mrityunjay Doddamani, 36 Lakhs, 2021-2024.
- ❖ Ultrafine Grain Refinement Through Low Plasticity Burnishing on Waam of Mg alloy for Aerospace and Automotive Applications, DST-SEED, Dr. ASS Balan, 16.5 lakhs, 2020-2023.
- ❖ Additive manufacturing of novel polymers and composites at industrial scale, NSF, PI: Dr. Nikhil Gupta, New York University, NY, USA, Co-PIs: Dr. Mrityunjay Doddamani, Dr. P. Jeyaraj and Dr. Anadan Srinivasan.
- ❖ Explore – Experiential Learning Reengineered, IITM Alumni Association (IITMAA), PI: Prof. Gangadharan K V, Co-PIs: Dr. Sheena (SOM) and Dr. Pruthviraj U (WROE), 24 lakhs, 2020-2024.
- ❖ E Mobility, NITK+NITKAlumni, PI: Prof. Gangadharan K V and Co-PI: Dr. Pruthviraj U (WROE), 15 lakhs, 2020-2023.
- ❖ Design and Development of Hybrid-FRP Based Composites for Low-Cost and sustainable Mobile Shelter Houses, DST, Dr. Saurabh Chandraker & Dr. Ranjeet Kumar Sahu, 33.4 lakhs, December-2023 to December-2025.
- ❖ Laser Directed Energy Deposition of Functionally Graded Cu-SS316L structures for Power Generation Applications, SERB-CRG, Dr. Srikanth Bontha and Dr. A.S.S. Balan, 31.06 lakhs, May 2023 to May 2026.
- ❖ Laser Additive Manufacturing of Novel and High-performance Ni-based Superalloy Composites, SPARC, Dr. Srikanth Bontha, 44.08 lakhs, July 2023 to July 2025.
- ❖ Assessing suitable additive manufacturing technology for processing Titanium Aluminide components with desired microstructures and high-temperature properties for aeroengine applications, DRDO, Dr. Srikanth Bontha, 341.02 lakhs, January 2024 - January 2027.
- ❖ Laser-based Additive manufacturing of Ni-Based Superalloy Components: Advancing Repair and Enhancement Technologies Using LMD Technique – A Simulation and Experimental Validation, ISRO, Dr. Srikanth Bontha, 26.4 lakhs, December 2021 - Present.
- ❖ Synthesis of Intelligent Nanostructured Materials via a Plasma Source based Digital Nanomanufacturing Method and their Characterization, SERB-CRG, Dr. Ranjeet Kumar Sahu, Prof. Hemantha Kumar and Prof. Debashisha Jena, 30.23 lakhs, July 2023 - July 2026.
- ❖ Semi-Active Damping using Controllable Orifice for Four-Wheeler Automobile, SERB-CRG, Prof. Hemantha Kumar, Prof. Debashisha Jena and Dr. Ranjeet Kumar Sahu, 28.18 lakhs, January 2022 - January 2026.

## 10. DEPARTMENT OF MINING ENGINEERING

- ❖ Definition of Delay Sequencing in The Blast Designs Using Advanced Analytical Techniques for Optimization of Blast Fragmentation and Improving Mine Economics in Non-Coal Mines- jointly with



CISIR-CIMFR- Nagpur & Anna University, Sponsored by Ministry of Mines, Govt of India. Budget: Rs. 42 Lakhs, Project code: SNTMOM:67/2020, for 2022-2024, PI: Dr. K. Ram Chandar.

- ❖ Underground Mine Real-Time Air Quality Monitoring and Assessment at Surface Control Room based on LoRa Sensors, IoT and Machine Learning Techniques-VGST K Fist (L1), DST, Sponsored by Govt of Karnataka. Budget: Rs. 15 Lakhs, Project code: KSTePS/VGST/K-FISTL1/GRD NO.1047/2021-22/427n, for 2023-2025, PI: Dr Sandi Kumar Reddy & Co-PI: Dr M Aruna.
- ❖ Scientific study for pit slope stability studies of Subbarayanahalli Iron Ore Mine & Thimmapangudi Iron Ore Mines, Karnataka State Mineral Corporation Limited, Sponsored by Govt of Karnataka. Budget: Rs. 10 Lakhs for 2023-2025, PI: Dr Sandi Kumar Reddy & Co-PI: Dr M Aruna.
- ❖ Determination of optimum safe distance of dump from pit and design guidelines for overall stability in open pit mines in different geo-mining conditions, SERB, Core Research Grant, DST, Sponsored by Govt of India. Budget: Rs. 33.25 Lakhs, Project code: CRG/2023/005217, for 2024-2026, PI: Dr Sandi Kumar Reddy.

## 11. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- ❖ “Surface Engineering of Biomedical Implants for the Prevention of MDR Infection” Funded by DST/ICD/BRICS/Call-5/SEBIPMI/2023, Principal Investigator: Dr. Selvakumar Murugesan, Dept. of Met & Matls. Engg., at the cost of Rs.44,34,400/- (Date: 14/07/2023)
- ❖ “Fabrication of 2-D Layered Nanosheets Strengthened Multifunctional Coating for Bone Tissue Regeneration” Funded by DST, Principal Investigator: Dr. Selvakumar Murugesan, Dept. of Met & Matls. Engg., at the cost of Rs.11,64,260/- (Date: 03/07/2023)
- ❖ “Development of High-Temperature Wear and Erosion Resistant Coatings for Thermal Components using High-Velocity Air Fuel (HVAf) Spraying – A Robust Cost-Effective Technology”, Funded by CPRI, Principal Investigator: Dr. B. Rajasekaran, Dept. of Met & Matls. Engg., at the cost of Rs.41.54 lacs (Duration)
- ❖ “Realisation of Al Alloy AA2219/AA2014 Integrally Stiffened Cylindrical Structure through Flow Forming”, funded by ISRO. CO-PI: Dr. Preetham Kumar GV. Amount sanctioned: Rs. 88 lakhs. Sanction letter number: ISRO/RAC-S/NITK/2021-22 (2022-2025)
- ❖ “Prawn shell-derived natural protein-based highly efficient UV protection coating for drug products” sponsored by Science & Engineering Research Board (SERB), Principal Investigator: Dr. Saumen Mandal, Dept. of Met & Matls. Engg., Co-principal Investigator: Dr. Saikat Dutta, Dept. of Chemistry, at the cost of Rs.35,21,650/- (Duration: February 2022 – February 2025).
- ❖ "To Study the Effect of Interfacial Heat Flux during WAAM on the Micro-Structural, Distortion and Mechanical Properties of Aluminum Alloy", sponsored by Science & Engineering Research Board (SERB), Mentor: Prof. K. Narayan Prabhu, Dept. of Met & Matls. Engg., at the cost of Rs.19,05,000/- (Duration: January 2021- February 2024).

## 12. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT

- ❖ Research Project titled, “EXPLORE –EXPERIENTIAL LEARNING ONLINE REENGINEERING” sanctioned by PALS (Alumni Association of IIT Madras) on Experiential Learning through Virtual Labs by granting a financial assistance of Rs.24,00,000/- for a period of four years (2020-2024)
- ❖ An Empirical Study of the Factors Affecting Demand for Millet and Millet-based Products among Youth in Dakshina Kannada District of Karnataka. Principal investigator: Dr. Savita Bhat; Associate Professor, School of HSSM at the cost of Rs. Five Lakhs. (07/09/2023 to 06/03/2024)
- ❖ Wristband design solution with emergency alerts for lifeguards. sponsored by the Ministry of MSME. Principal investigator: Dr. Bijuna C Mohan, SHSSM, Co-PI- Dr, Pruthviraj U, Dept of WROE, at the cost of Rs. 17,20, 000 (Period 01/01/2024 to 01/12/2024)

- ❖ Evaluating the potential of circular agri-food systems on improving the socio-economic conditions of farmers, SPARC, amount 54,02,261, Role: Project Investigator

### 13. DEPARTMENT OF PHYSICS

- ❖ Transition Metal Oxide Based Devices for Nonvolatile Resistive Random-Access Memory Applications (ongoing)
- ❖ "Development and Characterization of Advanced Solar cell" (G.R.D. - 536) (Ongoing)

### 14. DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

- ❖ Design, and analysis of the development of a hybrid offshore floating breakwater, Dr. D. Karmakar (PI) and Dr. Manu (Co-PI), Ministry of Ports, Shipping and Waterways, New Delhi, India, Rs 49.21 Lacs, 2021-2023

## 7.2 Consultancy Projects

### 1. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- ❖ Knowledge Partner for Cloud Development and Architecture, Tata Consultancy Services (TCS)-iON. PI: Dr. Annappa & Dr. Sourav Kanti Addya from January 2024-2027.
- ❖ Basic DevOps Engineering, TCS iON. PI: Dr. Basavaraj Talawar from July – December 2024.
- ❖ RemoteUs: A WAN Aggregation Solution - Phase 0 Tata Communications Ltd. PI: Dr. Mohit P. Tahiliani, duration: 2.0 months, Rs. 4,60,200 (Start date: 18-03-2024).
- ❖ Design and Development of a Video Analytics Platform, MACS-G Solutions DMCC, Dubai. PI: Dr. Mohit P. Tahiliani, duration: 12.0 months, Rs. 14,85,000 (Start date: 29-02-2024)
- ❖ Shadow IT Detection using Corporate Email, Normalyze Inc., USA. PI: Dr. Mohit P. Tahiliani, duration: 3.0 months, Rs. 1,79,542, (Start date: 24-01-2024)
- ❖ Development and Verification of Quantum Encryption Defender Products, Outside the Stacks, Inc., USA. PI: Dr. Mohit P. Tahiliani, duration: 12.0 months, Rs. 6,48,000 (Start date: 24-01-2024)
- ❖ Empirical Evaluation of Named Data Networking for Modern Day Applications, Tata Communications Ltd. PI: Dr. Mohit P. Tahiliani. duration: 4.0 months, Rs. 14,51,400 (Start date: 17-12-2023)
- ❖ Multi-Source Text Extraction and Document Generation Module Prasanna Technologies Pvt. Ltd., Mangalore. PI: Dr. Mohit P. Tahiliani Duration: 1.0 months, Rs. 42,480 (Start date: 14-10-2023)
- ❖ Samsotech Online Check-in Solution Samsotech International FZC, Dubai PI: Dr. Mohit P. Tahiliani, duration: 4.0 months, Rs. 2,40,000 (Start date: 04-10-2023)
- ❖ Multi-Source Text Extraction and Document Generation Module, MACS-G Solutions DMCC, Dubai. PI: Dr. Mohit P. Tahiliani, duration: 6.0 months, Rs. 7,92,000 (Start date: 11-07-2023)

### 2. DEPARTMENT OF MINING ENGINEERING

- ❖ Project title: Scientific study on Ground vibration studies due to blasting at Neeralakere Dolomite Mines of Karnataka State Minerals Corporation Ltd, Investigator(s): Prof. Harsha Vardhan Funding Agency: Karnataka State Minerals Corporation Ltd Sanctioned Amount (in Lakh Rs.): 4.22 Lakhs, Duration: 6 month
- ❖ Project title: Scientific study on Ground vibration studies due to blasting at Subbarayanahalli Iron Ore Mines of Karnataka State Minerals Corporation Ltd Investigator(s): Prof. Harsha Vardhan Funding Agency: Karnataka State Minerals Corporation Ltd Sanctioned Amount (in Lakh Rs.): 2.86 Lakhs, Duration: 6 month
- ❖ Project title: Assessment of stability of ZP road passing through the lease area of Kumaraswamy Iron Ore Mines, Donimalai Complex - NMDC Ltd. Ballari Investigator(s): Prof. Harsha Vardhan, Funding Agency: NMDC Ltd. Ballari, Sanctioned Amount: 9.5 lakhs Duration: 9 months

- ❖ Project title: Recovery test for limestone at Alanthuriyarkattalai Limestone Mines of M/s Ultratech Cements Limited, Tamilnadu Investigator(s): Prof. Harsha Vardhan, Funding Agency: M/s Ultratech Cements Limited, Tamilnadu, Sanctioned Amount: 1.0 Lakhs Duration: 1 month
- ❖ Project Title: Scientific Study on Slope Stability Study of Haddinapade Iron Ore Mine Funding Agency: M/s. BKG Mining Private Limited', Sandur Ballari Dist., Karnataka Amount: Rs. 4.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 2 months
- ❖ Project Title: Scientific Study for Pit Slope Stability of Karadikolla Suresh Iron Ore Mine Funding Agency: P. Balasubba Setty & Son, Hosapete, Karnataka. Amount: Rs. 3.50 Lakhs Principal Investigator: Dr. K. Ram Chandar Duration: 2 months
- ❖ Project Title: Scientific Study on 'Slope Stability, Impact of Godavari River Water on Indaram opencast Project Benches, Dumps and Embankments, and Effect of Indaram OCP Blasting on IK 1A Underground Working of SRP Area (Jointly with NIT Warangal) Funding Agency: The Singareni Collieries' Company Limited Kothagudem, Telangana, Amount: Rs. 20.0 Lakhs Principal Investigator: Dr. K. Ram Chandar Duration: 6 months
- ❖ Project Title: Scientific Study on Dump Stability of Ramgad Iron Ore Mine. Funding Agency: M/s. Zeenath Transport Company, Sandur- Karnataka, Amount: Rs. 3.00 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 3 months
- ❖ Project Title: Scientific Study on Slope Stability of Ramgad Iron Ore Mine Funding Agency: M/s. Zeenath Transport Company, Sandur- Karnataka. Amount: Rs. 4.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 3 months
- ❖ Project Title: Scientific Study on Dump Stability of Dharmapuri Iron Ore Mine Funding Agency: M/s. VESCO Limited, Sandur- Karnataka, Amount: Rs. 3.80 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 2 months
- ❖ Project Title: Scientific Study on Slope Stability of Kammatharu Iron Ore Mine Funding Agency: M/s. SMIORE, Sandur- Karnataka. Amount: Rs. 4.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 2 months
- ❖ Project Title: Scientific Study on Slope Stability of Kanivehalli Iron Ore Mine Funding Agency: M/S. SMIORE, Sandur- Karnataka Amount: Rs. 4.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 3 months
- ❖ Project Title: Scientific Study for Slope & Dump Stability Study of Karadikola Iron Ore Mine Funding Agency: M/s. MSPL Limited, Hospet, Karnataka. Amount: Rs. 7.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar Duration: 3 months
- ❖ Project Title: Scientific Study for Slope & Dump Stability Study of Limestone Mine, Funding Agency: M/s. Orient Cement Limited, Chittapur, Gulbarga- Dist, Karnataka. Amount: Rs. 6.20 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 2 months.
- ❖ Project Title: Scientific Study to Suggest Safe Method of Working in Chenchu Kumari Granite Mine Keeping in view the Surrounding Structures. Funding Agency: M/s. Chenchu Kumari Granite Mine, Guntur Dist, Andhra Pradesh, Amount: Rs. 3.00 Lakhs. Principal Investigator: Dr. K. Ram Chandar Duration: 2 months
- ❖ Project Title: Slope Stability Study of Tummalapenta Limestone Mine (Pit-1 & Pit-2) Funding Agency: M/s. Ultratech Cement Limited, Ananthapur- Dist, Andhra Pradesh Amount: Rs. 7.60Lakhs. Principal Investigator: Dr. K. Ram Chandar Duration: 2 months
- ❖ Project Title: Ground Vibration Study in Palakkal Granite Quarry Funding Agency: M/s. Palakkal Granite Products (Private) Limited, Kozhikode- Dist, Kerala, Amount: Rs. 2.00 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 1 month
- ❖ Project Title: Slope & Dump Stability Study of Dharma Iron Ore Mine. Funding Agency: M/s. JSW Steel Limited, Ballari, Karnataka, Amount: Rs. 7.50 Lakhs. Principal Investigator: Dr. K. Ram Chandar Duration: 4 months



- ❖ Project Title: Stability Analysis of Backfilling/Dump of Devadari Iron Ore Mine Funding Agency: M/s. JSW Steel Limited, Ballari, Karnataka Amount: Rs. 3.00 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 2 months
- ❖ Project Title: Ground Vibration Study in Granite Quarry as per the terms of Reference of Kerala State Disaster Management Authority & Honourable High Court of Kerala. Funding Agency: M/s. Malabar Sands & Stone Pvt Limited, Kannur- Dist, Kerala. Amount: Rs. 2.00 Lakhs. Principal Investigator: Dr. K. Ram Chandar, Duration: 1 month
- ❖ Project Title: Proposing a method for reclamation/maintenance of old existing tailing ponds belonging to “Greater Ferromet, Division of Sociedade De Fomento Industrial Private Limited” located at Santana Village, Sanguem Taluka, South Goa District, Goa. Chief Investigator: Dr Sandi Kumar Reddy Funding Agency: Sociedade De Fomento Industrial Pvt. Ltd Sanctioned Amount: Rs. 5.0 Lakhs Duration: (Start and end dates) 6 months (Nov- May 2024)
- ❖ Project Title: To study and suggest tailing ponds design for safe and optimum disposal of tailings generated from the Wet Beneficiation Plant of “Greater Ferromet, Division of Sociedade De Fomento Industrial Private Limited” located at Santana Village, Sanguem Taluka, South Goa District, Goa. Chief Investigator: Dr Sandi Kumar Reddy, Funding Agency: Sociedade De Fomento Industrial Pvt. Ltd, Sanctioned Amount: Rs. 5.0 Lakhs Duration: (Start and end dates) 6 months (Nov- May-2024) -6 months
- ❖ Slope stability study of the Block-V, Advalpale-Thivim Mineral Block M/s Fomento Resources Private Limited for safe workings and optimum design situated at Advalpale and Thivim Villages, Bicholim&Bardez Taluka, North Goa District, Goa. Chief Investigator: Dr Sandi Kumar Reddy, Funding Agency: Fomento Resources Pvt. Ltd, Sanctioned Amount: Rs. 7.5 Lakhs, Duration: 3 months
- ❖ Scientific studies for recovery estimation of granite material from the Hosamani Granite (QL No: 399), Ilkal, Bagalkot District, Karnataka State, Chief Investigator: Dr Sandi Kumar Reddy, Funding Agency: Hosamani Granite Sanctioned Amount: Rs. 2.0 Lakhs, Duration: 2 months.

### 3. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- ❖ Basavaraj et al., Failure Analysis of Forced-Draft Fan shaft (Rs. 6 L, MRPL)
- ❖ Completed consultancy project worth Rs.7 lakhs/- with MRPL
- ❖ Received work order worth Rs.20 Lakhs from the Critical rotory maintenance team, MRPL in March 2024

## 7.3 Future Plans

### 1. DEPARTMENT OF CHEMICAL ENGINEERING

- ❖ **New Labs/ Equipment**  
SOEC Test Station
- ❖ **Target for sponsored R&D Projects**  
SERB, CSR
- ❖ **New areas of Research**  
Energy Storage Devices, Electrolysis/Fuel Cells, CO Oxidation reaction, SOECs

### 2. DEPARTMENT OF CHEMISTRY

- ❖ Thermoelectrics, nanofluids, photocatalysis, supercapacitors and materials for energy and environmental applications, Nano Technology, Bioenergy, Computational Fluid, Dynamics (CFD), Multi-Phase Flow, Biomimetic organic reactions, Electroorganic Synthesis, C-H Functionalization Reactions, Multicomponent Reactions.

### 3. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- ❖ Voice Enabled EHR System with Automated Medicine Dispensing Robots and Scheduling System (Dr. Annappa)
- ❖ TARE scheme of SERB, DST, GOI (Dr. Annappa)
- ❖ ISRO Respond 2021 (Dr. Annappa)
- ❖ Smart Clinical Decision Support System for Identification of Novel features from Cancer Genomic Big Data Sets from Birmingham University, UK under the VAJRA scheme of SERB. (Dr. Annappa)
- ❖ Design and Prototype development of low power, wireless, intelligent digital Stethoscope under biomedical device and technology development of DST. (Dr. Annappa)
- ❖ Development of Adrenaline auto-injector for patients with anaphylaxis under DST –BDTD (Dr. Shashidhar G. Koolagudi)
- ❖ Character classification of Kannada inscription (Dr. Shashidhar G. Koolagudi)
- ❖ Realization of Deterministic Networks over Heterogeneous Communication Technologies and Develop Reliable Protocols for the Internet of Things [REAP-IoT] (Dr. Mohit P. Tahiliani)
- ❖ Park Smart: A Real-time parking solution for accidental cities under SERB (Dr. Sourav Kanti Addya)
- ❖ Development of a Searchable Encryption System for Secure Storage and Retrieval of Encrypted Documents from the Cloud Server, SERB (Prof. P. Santhi Thilagam and Dr. Alwyn R. Pais)

#### **New areas of Research:**

- ❖ Dr. Jeny Rajan, CSE Department, NITK-Surathkal and Dr. Santhosh Kannath, Additional Professor, Department of Imaging Sciences and Intervention Radiology, Sree Chitra Tirunal Institute for Medical Science & Technology, collaborated on a project titled "Development of Radiomics and Artificial Intelligence Augmented Imaging Biomarkers and Computer-Aided Tool for Prediction of Stroke Evolution".

### 4. DEPARTMENT OF INFORMATION TECHNOLOGY

- ❖ Research in the areas of AI, 5G Technologies, Blockchain, Quantum Computing and Cyber Security.

### 5. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

#### **Target for Sponsored R&D projects: -**

- ❖ Projects from research organizations such as ISRO, DRDO and LRDE.

#### **New Areas of Research: -**

- ❖ Bio-Mechanics

#### **Institutions/organizations for future collaborations: -**

- ❖ Any institution/organization having impetus about realizing Make in India initiatives.

### 6. DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

#### **New Labs/Equipment:**

- ❖ Set up a state-of-the-art GPU server for the department – It is a requirement as students of the Department must be doing projects relating to AI/ML/data analytics.
- ❖ To set up a research lab in Computer Vision and Deep Learning.
- ❖ Network Security Lab

#### **Target for sponsored R&D Projects:**

- ❖ Applied for SERB-POWER.
- ❖ Planning to submit proposals for funded research projects in interdisciplinary areas in collaboration with other experts.
- ❖ Planning to submit a project proposal under DST's National Quantum Mission program
- ❖ ISRO RESPOND SPARC

#### **New Areas of Research:**

- ❖ Operator Algebras, Machine Learning and Deep Learning Methods for Model problems involving Partial differential equations
- ❖ Spectral Methods for Discontinuous functions. Application to differential equations having discontinuous solutions.
- ❖ Optimization of Deep Learning models.
- ❖ Partial Differential Equation solvers using machine learning models
- ❖ Image processing for civil engineering applications
- ❖ Blockchain Technology, IoT Security
- ❖ The stress–strength reliability of a system having more than two states can be studied assuming that the state of the system depends on the difference between strength and stress variables. In this framework, for the case when the stress and strength variables follow inverse Weibull distribution, the multi-state reliability assessment can be analyzed.

**Institutions/organizations for future Collaborations:**

- ❖ Terative methods for nonlinear equations, Cameron University Lawton, USA.
- ❖ Sichuan University, China
- ❖ To collaborate with the “Theoretical and Experimental Epistemology Laboratory” at the University of Waterloo, Canada to carry out collaborative research in vision science, machine learning, etc.
- ❖ Theoretical machine learning with EE dept, Indian Institute of Science, Bangalore
- ❖ Defence Institute of Advanced Technology, Pune
- ❖ The Infant-Toddler Language Development and Intervention Lab, NIMHANS, Bangalore
- ❖ IIT Jodhpur
- ❖ IIT Tirupati

## 7. DEPARTMENT OF MECHANICAL ENGINEERING

- ❖ Neuro Signals Analysis for Healing, Batteries and Fuel Cells, Renewable energy utilization, develop anticorrosion and antifouling coatings, Nanofluidics, Biofluidics, Highly efficient, low polluting porous burners, Cryogenic rocket engines, Thermal Spray Coatings, Tribocorrosion, Fatigue Analysis, Biodegradable Composites, composite structures, Inverse Bio-heat transfer, Virtual Prototyping Platform for Product Development, Additive Manufacturing, Magnetorheological damper, Novel stent design for human carotid artery.
- ❖ Particles Visualization and Measurement, Bio-medical Engineering, Dr. Arumuga Perumal D, NIT Trichy, NIT Calicut, IIITDM Kancheepuram.
- ❖ Product Design & Composite, Dr. Saurabh Chandraker, Carbon Light Pvt Ltd. New Delhi.

**New Labs/Equipment: -**

- ❖ Advanced Dynamics Lab (M404)
- ❖ Computational Mechanics Lab
- ❖ Applied Solid Mechanics Lab
- ❖ Welding and Foundry Lab
- ❖ Surface Engineering Lab
- ❖ Solidification simulation lab
- ❖ Microfluids and Nanofluids Lab
- ❖ Automation Laboratory 1 (FMS System and Robotics)
- ❖ Automation Laboratory 2 (Sensorics and Hydraulics and Pneumatics Control systmes)
- ❖ Aerospace Lab.
- ❖ Solar Energy Lab
- ❖ Bioheat Transfer Lab
- ❖ Mechanisms Design Lab
- ❖ Vehicle Dynamics Lab

- ❖ Smart Structures Lab
- ❖ Optimization Lab
- ❖ Electrochemical Corrosion Analyzer
- ❖ Scanivalve pressure sensor
- ❖ Four Stroke CI engine test rig
- ❖ Environmental Chamber
- ❖ Workstation with GPU
- ❖ Tungsten inert gas welding, Gas metal arc welding, Resistance spot welding,
- ❖ Quick cast solidification simulation software, sand sieving machine, Aluminium melting furnace
- ❖ Flash and Fire Point Tester
- ❖ High Performance Workstation
- ❖ Dual-purpose flat plate collector for air and water heating, Parabolic trough collector
- ❖ Humidifier-Dehumidifier, Solar Air Heater, Pyranometer, Pyrliometer, Workstation
- ❖ mechanisms kit
- ❖ Damper Testing Machine, Quarter Car Test Rig
- ❖ Forced and free vibration setup
- ❖ Refrigerator, Advanced Heat Transfer Lab (Imprint project).
- ❖ Airconditioner 2 Ton, Advanced Heat Transfer Lab (Imprint project).
- ❖ workstation, Advanced Heat Transfer Lab (Imprint project).
- ❖ Hitek kit, mechanism design lab.
- ❖ RFA system RITA-model, Advanced Heat Transfer Lab (Imprint project).
- ❖ Universal Testing Machine (1kN), Polymer Composites Lab.
- ❖ Workstation, Optimization Laboratory.
- ❖ Peeling m/c, Electrochemical System Design Lab (DST).
- ❖ Rheometer, Applied Solid Mechanics Lab (SERB).
- ❖ Five Gas Analyser, IC engines Laboratory.
- ❖ Ball milling, inverted biological microscope, Surface Engineering Lab.
- ❖ Tool Makers Microscope, Metrology.
- ❖ Peristaltic pump, Microfluids and Nanofluids Lab (SERB Project).
- ❖ Optical Microscope, Microfluids and Nanofluids Lab (SERB Project).
- ❖ Combined Vibration Test System, Computational Mechanics Lab-B.
- ❖ High-Temperature Microwave Furnace
- ❖ Accelerometer (1+1)
- ❖ Tool Makers Microscope
- ❖ Five gas analyzers
- ❖ Vibration Analyzer
- ❖ Rotor test setup
- ❖ High-performance cluster
- ❖ Micro Oven Heat Treatment Setup
- ❖ Microfluids and Nanofluids Lab
- ❖ Advanced Material Lab

## 8. DEPARTMENT OF MINING ENGINEERING

### Target for sponsored R&D Projects:

- ❖ Development of embedded control system, IoT and Machine learning microwave-assisted hydrogen reduction for beneficiation of low-grade iron ores - submitted to SERB, DST, New Delhi (2023)
- ❖ "Identification, Evaluation and Prediction of Slope Stability for Landslide Prone Regions in Kodagu District, Karnataka" - Submitted to 'National Disaster Management Authority, New Delhi'

- ❖ “An Epidemiological Investigation of the Effect of Coal Dust on Coal Miners’ Pneumoconiosis”- Submitted to IMPRESS, ICSSR, New Delhi.
- ❖ “Mapping and Modelling of Surface Coal Mine Fire Using Remote Sensing and GIS”-Submitted to ISRO.
- ❖ “Role of Safety Leading Indicators and Individual Characteristics of Workers on Occupational Injuries in Coal Mines-A Machine Learning Approach”- Submitted to Scheme for Promotion of Academic and Research Collaboration (SPARC), MoE, Government of India (Collaborated research work with Curtin University Australia).
- ❖ Development of India-specific Scientific Framework for Slope Stability Risk Assessment and Management in Opencast Mines.
- ❖ Development of a Classification System for the Slope Stability Assessment of Opencast Mines in Southern India.
- ❖ Investigation on the utilization of Gold Mine Tailings M/s. The Hutti Gold Mine Company Limited.

**New Areas of Research:**

- ❖ Occupational Ergonomics
- ❖ Safety Data Analytics

**Institutions/ organizations for future collaborations:**

- ❖ Peoples Friendship University of Russia, Moscow
- ❖ Curtin University, Australia

## **9. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING**

**New Labs/Equipment:**

- ❖ Surface Engineering Laboratory
- ❖ Facility for assessment of the health of quenchant
- ❖ High-performance workstation
- ❖ Intel Fortran compilers
- ❖ Functional Biomaterials
- ❖ Floating one Crystal Growth and Characterization Lab
- ❖ High-temperature corrosion degradation

**Target for Sponsored R&D projects:**

- ❖ To get at least one sponsored R&D project per year
- ❖ DST Start-up grant
- ❖ BARC Young Scientist start-up grant
- ❖ Healthcare
- ❖ DST- Core Grant (Applied)
- ❖ ISRO/DRDO,
- ❖ Dept. of Atomic Energy

**New Areas of Research:**

- ❖ Surface Engg.
- ❖ Smart Materials
- ❖ Database on liquid Quenchants
- ❖ Wetting/ dewetting of liquids
- ❖ Hydrodynamic stability
- ❖ Shape Memory Alloys
- ❖ Tissue Engineering
- ❖ Strongly correlated system, Multiferroic single-crystal
- ❖ Coating for very temperature application
- ❖ Intergranular Stress corrosion cracking (IG-SCC) at high temperatures and pressure of materials

**Institutions/organizations for future collaborations**

- ❖ Indira Gandhi Centre for Atomic Research, Kalpakkam
- ❖ Indian Institute of Science, Bangalore
- ❖ National Aeronautics Ltd., Bangalore
- ❖ Hindustan Aeronautics Ltd., Bangalore
- ❖ Jindal South West, Vijayanagar
- ❖ Kennametal Ltd., Bangalore
- ❖ Thermet Solutions (P) Ltd., Bangalore
- ❖ Tata Institute of Fundamental Research, Hyderabad
- ❖ IIT Hyderabad
- ❖ University of Bayreuth, Germany
- ❖ George Mason University, USA
- ❖ Purdue University, USA
- ❖ Physics Department, Jamia Millia University
- ❖ BARC, IGCAR

**10. DEPARTMENT OF PHYSICS****New Labs/Equipment: -**

- Large computing cluster for

**Target for Sponsored R&D projects: -**

- SERB, National Quantum Mission, DBT

**New Areas of Research: -**

- Quantum materials and their applications

**Institutions/organizations for future collaborations: -**

- IISER Pune, IIT Mumbai, IISc Bangalore, TIFR-Mumbai

**7.4 Papers Published in Refereed Journals****Table: List of publications during the period under report**

Sl. No.	Department	International Journal	National Journal	International Conference	National Conference
1	Chemical Engineering	49	0	<b>27</b>	<b>0</b>
2	Civil Engineering	45	1	1	11
3	Computer Science and Engineering	57	0	67	0
4	Chemistry	30	0	1	2
5	Electrical & Electronics Engineering	48	0	43	0
6	Electronics & Communication Engineering	56	0	24	0
7	Information Technology	28	0	42	0
8	Mathematical and Computational Sciences	37	2	8	0
9	Mechanical Engineering	43	1	3	0
10	Mining Engineering	21	2	6	0

11	Metallurgical & Materials Engineering	40	0	7	1
12	School of Humanities, Social Sciences and Management	28	2	6	3
13	Physics	15	0	0	0
14	Water Resources and Ocean Engineering	52	2	9	0

#### 7.4.1 International Journal

##### DEPARTMENT OF CHEMICAL ENGINEERING

- ❖ Abhayasimha K C, Chinta Sankar Rao, Vaishakh Nair, Combination of ensemble machine learning models in photocatalytic studies using nanoTiO<sub>2</sub> - lignin-based biochar, Chemosphere, 2024, DOI: 10.1016/j.chemosphere.2024.141326 (I.F – 8.8)
- ❖ Soumya Koippully Manikandan, Ayesha Mariyam, Nisarga Gowda, Aparna Singh, Vaishakh\ Nair, Mechanistic Understanding of Biochar-Bacteria System for Enhanced Chlorpyrifos Bioremediation in Water and Soil Medium, Chemical Engineering Journal, 2024, doi.org/10.1016/j.cej.2024.149119
- ❖ Pratyasha Pallavi, Soumya Koippully Manikandan and Vaishakh Nair Optimization and mechanistic study on bioremediation of Cr (VI) using microbial cell immobilized sugarcane bagasse biochar, Journal of Water Process Engineering, 2024, doi.org/10.1016/j.jwpe.2024.104859.
- ❖ Soumay Koippully Manikandan and Vaishakh Nair, developing a biocatalyst showcasing the synergistic effect of rice husk biochar and bacterial cell for the removal of heavy metals, New Journal of Chemistry, 2024, 48, 416, DOI: 10.1039/d3nj90180g
- ❖ Sunaina S. Patil, Raunak Kumar, Hari Prasad Dasari, Ceria-Terbium-based electrospun nanofiber catalysts for soot oxidation activity and its kinetics, Journal of the Taiwan Institute of Chemical Engineers, Volume 159, 2024, 105459, ISSN 18761070, <https://doi.org/10.1016/j.jtice.2024.105459>.
- ❖ Muhammad Rizky Pratama, Salsabiila, Adid Adep Dwiarmoko, Munawar Khalil, Hari Prasad Dasari, Rika Tri Yunarti, Synthesis of graphene nanosheets from coffee ground waste and its incorporation to mixed-phase TiO<sub>2</sub> as photocatalyst in anthracene degradation, Environmental Nanotechnology, Monitoring & Management, Volume 21, 2024, 100918, ISSN 2215-1532, <https://doi.org/10.1016/j.enmm.2024.100918>.
- ❖ Mohite Manthan Ravindra, Rahulkumar Shirasangi, Hari Prasad Dasari, M.B. Saidutta, Fabrication of praseodymium-doped ceria (PDC) films by slurry spin-coating technique and its structural, morphological and optical properties, Applied Surface Science Advances, Volume 16, 2023, 100413, ISSN 2666 5239, <https://doi.org/10.1016/j.apsadv.2023.100413>.
- ❖ Atmuri Shourya, Hari Prasad Dasari, Formation of nano-rod structures in manganese-rich ceria-manganese mixed oxides and their soot oxidation activity, Nano-Structures & Nano- Objects, Volume 34, 2023, 100970, ISSN 2352-507X <https://doi.org/10.1016/j.nanoso.2023.100970>.
- ❖ Patil, S.S., Dasari, H.P. An investigation on copper-loaded ceria-praseodymium catalysts for soot oxidation activity and its kinetics. Braz. J. Chem. Eng. (2023). <https://doi.org/10.1007/s43153-023-00312-3>.
- ❖ Shirasangi, R., Dasari, H.; Saidutta, M. Electrochemical characterization of electrolyte supported solid oxide electrolysis cell during CO<sub>2</sub>/H<sub>2</sub>O co-electrolysis. J Solid State Electrochem (2024). <https://doi.org/10.1007/10008-024-05853-2>.

- ❖ Priyanka Hugar, Ankita Dutta, S Srilakshmi, Prasanna D Belur, Keyur Raval, Regupathi Iyyaswami Phenolic profile of unripe areca nuts cultivated in various districts of Karnataka, India 2024/2 JSFA Reports Volume: 4, Issue: 2 Pages: 102-113 Publisher: Blackwell Publishing Ltd <https://doi.org/10.1002/jsf2.169>
- ❖ Arun Kumar Subramani, Reshma Ramachandra, Sachin Thote, Vishnupriya Govindaraj, Piyush Vanzara, Ritu Raval, Keyur Raval Engineering a recombinant chitinase from the marine bacterium *Bacillus aryabhattai* with targeted activity on insoluble crystalline chitin for chitin oligomer production 2024/3/10 International Journal of Biological Macromolecules Pages: 130499 Elsevier <https://doi.org/10.1016/j.ijbiomac.2024.130499>.
- ❖ PV Atheena, KM Rajesh, Keyur Raval, Subbalaxmi Selvaraj, Ritu Raval Identification and characterization of chitinase producing marine microorganism: Unleashing the potential of chitoooligosaccharides for bio-ethanol synthesis 2024/3/16 Journal: International Journal of Biological Macromolecules Pages: 130846 Elsevier DOI: <https://doi.org/10.1016/j.ijbiomac.2024.130846>.
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### 7.4.3 International Conferences

#### DEPARTMENT OF CHEMICAL ENGINEERING

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- ❖ Soumya Koippully Manikandan and Vaishakh Nair, “A sustainable approach to heavy metal wastewater remediation through biochar-bacteria synergy” International Conference on Desalination, Environment and Sustainability IDEAS 2024, January 22-23, 2024, Abu Dhabi, UAE.
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- ❖ Sanyam Jain and Hari Mahalingam, Utilizing Low-Cost Ionic Liquids for effective pretreatment of lignocellulosic Biomass Mixtures, presented at the first international conference on Trends in Chemical, Energy and Environmental Engineering (ChemEEE 2024) organized by the Indian Institute of Petroleum and Energy (IIPE), Visakhapatnam during February 19-21, 2024.
- ❖ Dara Kiran and Hari Mahalingam, Degradation of ciprofloxacin antibiotic by photocatalytic concrete composites under solar light, presented at the first international conference on Trends in Chemical, Energy and Environmental Engineering (ChemEEE 2024) organized by the Indian Institute of Petroleum and Energy (IIPE), Visakhapatnam during February 19-21, 2024.
- ❖ Nishanthini T & Prasanna B.D presented a paper “Enhancing the keeping quality of the fresh cut Brinjal using propyl gallate and gallic acid” in International conference on Technologies and Innovations for sustainable development, held in MNNIT Jaipur on 27-29, October 2023.



- ❖ Selva Sudha A & Prasanna B.D presented a paper “Influence of different immobilization support material on the enzymatic synthesis 3,4-dihydroxyphenyl acetic acid esters” in International conference on Technologies and Innovations for sustainable development, held in MNNIT Jaipur on 27-29, October 2023.
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- ❖ Shruti Agarwal, Ramesh Potnuri, Chinta Sankar Rao, Prediction of Hydrogen Yield from Pyrolysis of Lignocellulosic Biomass Using Machine Learning Approach, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2023) during November 24 & 25, 2023.
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## DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

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- ❖ "Oxidative Amidation of Tosylhydrazones with Carboxylic Acid under Metal-free Condition.", Poster Presentation, National Conference on "Frontiers in Chemical Sciences (FCS-2024)" held at the University of Calicut, Calicut on 13-15<sup>th</sup> March 2024, Ali Shamnad and Beneesh P. B.

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- ❖ Dhishna P co-presented a paper with Supthitha Pal entitled “Eco-crisis Echoed in Chantal Bilodeau’s Sila” at the National Conference on Ecological Compositions: Indigenous Responses from India and Canada organized by the Institute of English and UGC Area Study Centre for Canadian Studies, University of Kerala, Thiruvananthapuram held on 09-10 February, 2023.
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## 7.5 Other Achievements

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#### Poster

- Aswath K.S & Prasanna B.D presented a poster and secured third prize in BioSangam-2024, held in MNNIT Jaipur on 23-25, February 2024.











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-  Priyusha, G., Shreyasvi, C., Venkataramana, K. Studies on Seismic Performance of RC Framed Buildings Using Pseudo-optimization Method. In: Nehdi, M., Hung, M.K., Venkataramana, K., Antony,



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-  Merin Mathews, Jayalekshmi B R and Venkataramana K. "Probabilistic Analysis of RC Buildings Based on Incremental Dynamic Analysis", IOP Conference Series: Earth and Environmental Science, Volume 1149, 2023. <https://iopscience.iop.org/article/10.1088/1755-1315/1149/1/012007/pdf>
-  Sreya M V, Jayalekshmi B R and Venkataramana K. "A Comparative Study on Dynamic Response of Buildings Resting on Coir and Rubber mat Reinforced Soil Bed", IOP Conference Series: Earth and Environmental Science, Volume 1149, 2023. <https://iopscience.iop.org/article/10.1088/1755-1315/1149/1/012012/pdf>
-  Shreyasvi, C., Venkataramana, K. "Role of Uncertainties in Site Response Analysis and Their Incorporation in Seismic Hazard Workflow". In: Jakka, R.S., Singh, Y., Sitharam, T.G., Maheshwari, B.K. (eds) Earthquake Engineering and Disaster Mitigation, Springer Tracts in Civil Engineering. Springer, Singapore. pp.85-97, 2023 [https://doi.org/10.1007/978-981-99-0081-7\\_4](https://doi.org/10.1007/978-981-99-0081-7_4).
-  Sreya, M.V., Jayalekshmi, B.R., Venkataramana, K. "Seismic Response of Buildings Resting on Geosynthetics Reinforced Sand Bed". Structural Integrity. DOI:10.1007/978-3-031-05509-6\_4. Vol 26, pp: 51 – 57, 2023.
-  P. Nimisha, B. R. Jayalekshmi, and K. Venkataramana. "Influence of Geometric Parameters in Self-damping Efficiency of Rectangular Liquid Storage Tanks." International Conference on Materials Mechanics & Structures (ICMMS 2022), Lecture Notes in Civil Engineering, Springer, Singapore. DOI: 10.1007/978-981-19-3371-4\_12. vol. 269, pp. 133-140, March 10-12, 2022, Published 2023.
-  Reddy, D.M.M., Krishna, S.V., Jayalekshmi, B.R. "A Study on the Behavior of Piled Raft Foundation Under Seismic Loading". Structural Integrity. 10.1007/978-3-031-05509-6\_5. Vol 26, pp: 58-65, 2023.

### Books Edited

-  Hazarika, H., Stuart Haigh, K., Chaudhary, B., Murai, M., and Manandhar, S (2024) Climate Change Adaptation from Geotechnical Perspectives (Eds). Published by Springer Singapore (ISBN: 978-981-99-9214-0), pp 1-437.
-  Hazarika, H., Stuart Haigh, K., Chaudhary, B., Murai, M., and Manandhar, S (2024) Natural Geo-Disasters and Resiliency (Eds). Published by Springer Singapore (ISBN: 978-981-99-9222-5), pp 1-448.
-  Hazarika, H., Stuart Haigh, K., Chaudhary, B., Murai, M., and Manandhar, S (2024) Sustainable Construction Resources in Geotechnical Engineering (Eds). Published by Springer Singapore (ISBN: 978-981-99-9226-3), pp 1-468.
-  Hazarika, H., Stuart Haigh, K., Kanaya, H., Chaudhary, B., Kochi, Y., Murai, M., Wahyudi, S. and Fujishiro T. (2022) Sustainable Geo-Technologies for Climate Change Adaptation (Eds). Published by Springer Singapore (ISBN: 978-981-19-4074-3), pp 1-255.

### Patents

- Ningappa A.; and Suresha S.N., "Direct compaction mould for preparation of bitumen bounded fine aggregate matrix specimen", *Indian Patent Office*, Patent Number 504030, Granted on 29/01/2024.

- Shruthi B S and Palanisamy T, “Device to monitor and record the propagation of fractures and cracks in concrete structures”, *Indian Patent Office*, Design Patent No.: 398078-001.
- Shruthi B S and Palanisamy T, “Ultrasonic velocity monitoring device in concrete structures”, *Indian Patent Office*, Design Patent No.: 388634-001.

### Conferences

- 2<sup>nd</sup> International Conference on Construction Resources for Environmentally Sustainable Technologies (CREST 2023), Fukuoka, Japan by Babloo Chaudhary (Secretary General, TC), 20-22 November 2023.
- International Symposium on ‘Civil Engineering – From Time Tested to Testing Times’ by Sunil B.M. & B. Manu in association with Institution of Engineers India (IEI) on 17<sup>th</sup> November 2023.
- Two-Day International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges – 2023 (SIIOC – 2023) by 20<sup>th</sup> - 21<sup>st</sup> April 2023.

### Workshops

- Raviraj H. M, “Transportation System Design”, NITK Surathkal, Nov 20-24, 2023.
- Sunil B. M. “One day workshop on “Role of Technology in Aerospace and Defense” Under Boeing Higher Education Relations on May 22<sup>nd</sup>, 2023 (through CDC) at NITK Surathkal.
- Sunil B.M. “Workshop on Aptitude for Students” on 5.8.2023 through CDC (Time Mangalore conducted for Students)
- Sunil B.M. “Workshop on Current & Future Trends in Aerospace Materials Additive Manufacturing in Aerospace” on 17<sup>th</sup> Sep. 2023 (Virtual mode) through CDC. [Boeing India]

### Visits Abroad (By Faculty)

- Prof. Basavaraju Manu visited Murdoch University, Australia, to present a paper at the International Water Association Conference on Water & Wastewater Management, with a special focus on Developing Countries held during December 03-08, 2023
- Prof. Sunil B.M. visited Japan to attend and present a paper at the International Conference on Construction Resources for Environmentally Sustainable Technologies (CREST 2023) held at Fukuoka, Japan from Nov. 20-22, 2023.

## DEPARTMENT OF CHEMISTRY

### Book Chapters

- 📖 M. Sethi, U.S. Shenoy, D.K. Bhat, ‘Iron Oxide-Functionalized Graphene Nanocomposites for Supercapacitor Application’. In the book titled, ‘Iron Oxide-Based Nanocomposites and Nanoenzymes’, Springer Nature, doi: 10.1007/978-3-031-44599-6, 2023
- 📖 Manuel Aureliano, Sib Sankar Mal, Gil Fraqueza, Ana Luísa De Sousa-Coelho, Maria Leonor Faleiro, Nadiia, Gumerova and Annette Rompel, Polyoxovanadates: catalysis, pharmacology, antibacterial and anticancer activities” [https://doi.org/10.1142/9789811283208\\_0006](https://doi.org/10.1142/9789811283208_0006), world scientific, 2024, pp 174-202, ISBN: 978-981-12-7993-5.
- 📖 K, Nagaraj., Shetty, A. N., & Trivedi, D. R. (2024) “Colorimetric chemosensors for the detection of environment polluting arsenite and cyanide”, in “Organic and Inorganic Materials Based Sensors”



DOI: <https://doi.org/10.1002/9783527834266.ch14>, Wiley- VCH, 2024, Vol. 1, pp 289-313, ISBN: 978-3-527-34955-5.

### Reviews

- J E Madhusree, Sib Sankar Mal “Polyoxometalate-based materials for the effluent treatment of removing heavy metals in the water pollutants: mini review”, Applied Nanoscience, <https://doi.org/10.1007/s13204-023-02860-z>, Vol 13, 2023.

### Visits abroad (Faculty)

- Dr. Sib Sankar Mal, 01.06.2023 to 31.07.2023, Prof. Ulrich Kortz’s Research Laboratory, Constructor University, Bremen, Germany, through Alexander von Humboldt Foundation

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### Patents: Granted: 02

- Shashidhar G Koolagudi, Mukund A, Rohit C, Pravin B Ramteke, “METHOD AND DEVICE FOR DETERMINING TURBIDITY LEVELS IN WATER”, Application number: 201641025734, Filing date: 27/07/2016 Date of Grant: 14/11/2023
- Dr. B. R. Chandavarkar, Mr. Gautam Ramakrishnan, Mr. V. Saicharan, Mr. Mohit Bhasi, "A Travellers' Optimum Route Recommendation System", Application number: 202041023873, Filing date: 08/06/2020 Date of grant: 17/08/2023

### Visits Abroad (Faculty)

- Dr. K. Chandrasekaran attended the International Conference 32<sup>nd</sup> Euromicro PDP 2024 in Dublin, Ireland during 20-22 March 2024.
- Dr. Sourav Kanti Addya attended the International Conference 22<sup>nd</sup> Oercom 2024 at Biarritz, France during 11-15 March 2024.

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### Patents Published











- Hanjung song, Sandeep Kumar, AlaaDdin Al-Shidaifat, “Highly Efficient Antenna of Contact Lens” Patent No. 10-2533891, Korean Patent Filing Date: 02/09/2021, Registration Date: 15/05/2023.

### Visits Abroad (Faculty)

- Dr. Aparna P., Dr. Rathnamala Rao, Dr. Sandeep Kumar and Dr. Kalpana G. Bhat Department of E&C Engg, visited Chiang Mai Thailand, to present research papers at the International Conference (IEEE TENCON 2023) during 31 October – 3 November 2023.
- Dr. Krishnamorthy K., Department of E&C Engg, visited Guangzhai, China to present a paper at IEEE 11<sup>th</sup> Antennas and Propagation (APCAP 2023), during 19 – 22 November 2023.
- Dr. Sandeep Kumar, Department of E&C Engg, visited Taipei, Taiwan, to present a paper at the Asia-Pacific Microwave Conference (APMC 2023), 05-08, December 2023.

## DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

### Book Chapters

-  Dharavath Kishan, Marupuru Vinod, B Dastagiri Reddy, Ramani Kannan, “Asymmetric clamped mode control for output voltage regulation in wireless battery charging system for EV”, Book chapter in Power Electronics for Electric Vehicles and Energy Storage, DOI: 10.1201/9781003248484, Pages 175-192, ISBN: 9781003248484, 2023.
-  Ravi S Singh, Prakash Singh, Ram L Verma, D Jena, Arun Kumar, Onkar N Singh, “Biotechnology and Genomics-Based Strategies for Enhancing Photosynthetic Capacity and Nutrient-Use Efficiency of Crops”, Book Chapters in Handbook of Energy Management in Agriculture, DOI: [https://doi.org/10.1007/978-981-19-7736-7\\_25-1](https://doi.org/10.1007/978-981-19-7736-7_25-1), Pages:477–499, ISBN: 978-981-19-7735-0, 2023.
-  Vikas Singh, Tukaram Moger and Debashisha Jena, “Probabilistic Load Flow Study Considering Fuzzy Logic-Based Contingency Sequencing for Network Outages”, Book chapter in Sustainable Energy and Technological Advancements published by Springer Nature Singapore Pvt. Ltd., DOI: <https://doi.org/10.1007/978-981-99-4175-9>, pp. 57-70, 2023.
-  Vinukumar Luckose, Ramani Kannan, Dharavath Kishan, “Introduction to hybrid electric vehicle systems”, Book chapter in Power Electronics for Electric Vehicles and Energy Storage, Pages: 26, ISBN: 9781003248484, 2023.
-  Pittam Krishna Reddy, P Parthiban, R Kalpana, “Selection of electric drive for EVs with emphasis on switched reluctance motor”, Book Chapter in Power Electronics for Electric Vehicles and Energy Storage, Pages:24, ISBN: 9781003248484, 2023.
-  R Kalpana, R Kiran, P Parthiban, “Performance evaluation of multi-input converter-based battery charging system for electric vehicle applications”, Book Chapter in Power Electronics for Electric Vehicles and Energy Storage, Pages:93-116, ISBN: 9781003248484, 2023.
-  Rahul Dev, Yashwant Kashyap, Kirti Tewari, Piyush Pal, “Solar Distillation and Water Heating Systems Integration with Photovoltaic Technology”, Book Chapters in Renewable Energy: Accelerating the Energy Transition, DOI: [https://doi.org/10.1007/978-981-99-6116-0\\_8](https://doi.org/10.1007/978-981-99-6116-0_8), pp. 139-165, ISBN: 978-981-99-6116-0, November 2023.
-  CN Chaitrashree, Yashwant Kashyap, P Vishnu Sidharthan, “Li-ion Battery Energy Storage Management System for Solar PV”, Book Chapters in Renewable Energy: Accelerating the Energy Transition, DOI: [https://doi.org/10.1007/978-981-99-6116-0\\_13](https://doi.org/10.1007/978-981-99-6116-0_13), pp. 235-262, ISBN: 978-981-99-6116-0, November 2023.
-  Dr. Dattatraya Narayan Gaonkar, “UNIT 5 Solar Photovoltaic (PV) System and UNIT 6 Solar Photovoltaic (PV) System Design and Installation”, Book Chapters in MRW-005 SOLAR ENERGY AND APPLICATIONS, ISBN: 978-93-5568-712-8, 2023.
-  K. P. Vittal, L. Poiraiton Meitei and James Antony Pinto, “Adaptive Protection of Solar PV Microgrid Without ESS”, Book Chapters in Advances in Renewable Energy & Electric Vehicles, DOI:<https://doi.org/10.1007/978-981-99-6151-1>, ISBN: 978-981-99-6150-4 ISBN 978-981-99-6151-1 (eBook), 2024.

## Patents

- Dr. B. Venkatesaperumal, Dr.A. Karthikayan, Mr. M.Arijun, Mr. Vanjari Venkata Ramana, “Solar Water Pumping System in Grid Tie or Off-Grid Mode with Net Zero Energy from Grid”, Patent Application No.: 201641035575, January 12, 2024.

- Dattatraya Gaonkar, Nisha K S & Jayalakshmi N S, “A non-isolated multi-port interleaved bipolar bidirectional converter for EV charging in bipolar dc grid”, Patent Application No.: 202341033747, February 10, 2024.
- Dr. Y. Suresh and Jammala Venkataramanaiah,” Method, System and Apparatus for Converting Single DC to Three Phase using Unidirectional Sinewave Generators “, Patent Application No.: 202041023872, January 15, 2024.
- Dr. Dharavath Kishan and Bonthapalle D Reddy, “Method, System and Apparatus for Charging an Electric Vehicle”, Patent Application No: 202141056309, November 8, 2023.
- Muthumula Rama Narayana Reddy, Bonthapalle Dastagiri Reddy, P Prajof, Dharavath Kishan “Multiport High Gain Power Converter with Active Power Decoupling and its Operating Method Thereof”, Indian Patent Office, Chennai, Patent Application No.: 202241062462, May 16, 2023.
- Dastagiri Reddy, M.P. Selvan, S Moorthi, “Embedded Controller for n-Level Multilevel Inverter using FPGA”, Indian Patent Office, Patent Application No.: 3435/CHE/2013, May 11, 2023.
- Dharavath Kishan, “Wireless Electric Vehicle Battery Charger with Wide Output Voltage Range”, Patent Application No.: 202341045189, 2023.
- J Saikrishna Goud and R Kalpana, “Method and Device for Life Estimation of Li-Ion Battery”, Patent Application No.: 201841047090, December 23rd, 2023.
- Vivek Kumar, Prajof P. and Dastagiri Reddy, “An Integrated Charger-Cum-Motor-Drive Power Converter with Dual Energy Storage System”, Patent Application No.: 202241046349, 15th December 2023.
- Gutti Om Suraj, Muthumula Rama Narayana Reddy, Vivek Kumar, Prajof P and Bonthapalle Dastagiri Reddy, “Multi-Mode Converter System for Electric Vehicles”, Patent Application No.: 202341044002, 8th March 2024.
- Dattatraya Narayan Gaonkar, Yashwant Kashyap Roystan Vijay Castelino, Anil Kumar, “System and Method for Forecasting Photo Voltaic Power Generation”, Patent No. 529429, 21 March 2024.

## DEPARTMENT OF INFORMATION TECHNOLOGY

### Book Chapters

- 📖 Reddy A.V.M., Rashmi, M., Natesha, B.V., Reddy G.R.M. (2023), “Fall Detection and Elderly Monitoring System Using the CNN”. In: Singh, P., Singh, D., Tiwari, V., Misra, S. (eds) Machine Learning and Computational Intelligence Techniques for Data Engg. MISP 2022, First Online 16 May 2023, Vol 998. pp. 171-182, Springer, Singapore. DOI: [https://doi.org/10.1007/978-981-99-0047-3\\_16](https://doi.org/10.1007/978-981-99-0047-3_16)

### Patents

- A Method, System and Apparatus for Generating Patient Knowledgebase for Clinical Decision Support Applications – Status: Under Examination (Appln No. 202041056808) - Dr. Sowmya Kamath S.

- System for Accurate Run-Out Decision in the Game of Cricket (Awarded on Feb 7, 2024)- Dr. Bhawana Rudra

### Reviews

- Reviewer for IEEE Computer Society, Elsevier and Springer-Dr. Bhawana Rudra

### Visits Abroad (Faculty)

- Dr. Sowmya Kamath S. visited Vietnam to present a paper entitled "Social Network Science Approaches for Disease Named Entity Recognition and Extraction" at the 38th Intl. Conf. on Information Networking (ICOIN 2024), Ho Chi Minh City, Vietnam, Jan 17-19, 2024.
- Dr. Geetha V. visited Vietnam to present a paper entitled "RIVER: A Bio-Inspired Routing Protocol for High Data Rate Wireless Sensor Network" at the 38th Intl. Conf. on Information Networking (ICOIN 2024), Ho Chi Minh City, Vietnam, Jan 17-19, 2024.

## DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

### Books Published

- 📖 Argyros, C.I., Regmi, S., Argyros, I.K., George, S. Contemporary algorithms: Theory and applications (2023) Contemporary Algorithms: Theory and Applications, 3, pp. 1-424.

### Editorials

- Guest Editor: Journal of Imaging, "Advances in Retinal Image Processing", 2024.
- Guest Editor: Journal of Imaging, "Frontiers in Retinal Image Processing" 2023.

### E-Print Archives

- Arup Majumdar, P. Sam Johnson, A formula of A-spectral radius for A<sup>12</sup>-adjoint operators on semi-Hilbertian spaces, arXiv, Cornell University Library, DOI: arXiv:2402.12961, Feb 2024.
- Arup Majumdar, P. Sam Johnson, A-approximate point spectrum of A-bounded operators in semi-Hilbertian spaces, arXiv, Cornell University Library, DOI: arXiv:2403.05071, Mar 2024.
- Arup Majumdar, P. Sam Johnson, Ram N. Mohapatra, Hyers-Ulam Stability of Unbounded Closable Operators in Hilbert Spaces, arXiv, Cornell University Library, DOI: arXiv:2403.06477, Mar 2024.
- Biswas, Rounak, and Roy, Falguni, "Additive and multiplicative properties of Drazin inverse under new weakly commutativity condition." arXiv preprint arXiv:2312.05002, Dec 2023.
- Chowdhry, Geeta, and Roy, Falguni, "A  $W$ -weighted generalization of  $\{1, 2, 3, 1^{\{k\}}\}$ -inverse for rectangular matrices." arXiv preprint arXiv:2312.01370, Dec 2023. Patra, Arnab, and Roy, Falguni, "New upper bounds for the  $q$ -numerical radius of Hilbert space operators." arXiv preprint arXiv:2306.04296, June 2023.

### Poster Presented

- V. Murugan, "Conscious Living", FDP on Sustainability - Aligning External & Internal drivers, A Heartfulness Approach, Heartfulness Center, Hyderabad, 1-7 June 2023.

- Jain M Francis, G. Chandhini, Solving Advection-Diffusion Equation Using Five-point Stencil Convolutional Neural Network, Presented at Intergroup Meeting 2023 (IGM 2023) organized at IISc, Bangalore between April 24-26, 2023

### Reviews



- Reviewed several journal papers in reputed journals from Springer, Elsevier, IEEE, SPIE, etc.
- Reviewed Ph.D. thesis of VTU.
- Jothi Ramalingam, "Review of the Article: A Publicly Verifiable Outsourcing Matrix Computation Scheme based on Smart Contracts", IEEE Transactions on Cloud Computing, 2023
- Jothi Ramalingam, "Review of the Article: A novel and provably secure identity-based blind signature scheme for online transactions", Cluster Computing, 2024.
- Reviewed the manuscript jmcs202401301 titled "A fast method to estimate the Moore-Penrose inverse for well-determined numerical rank matrices based on the Tikhonov regularization" for Journal of Mathematics and Computer Science (JMCS), Feb. 2024.

### Visits Abroad

- Visited the Department of Mathematics and Computer Science, Chulalongkorn University, Bangkok, Thailand during 12-23 June, 2023.
- Santhosh George, attended International Conference on Innovative Practices in Management, Engineering & Social Sciences-2024 (IPMESS-2024) (January 3-6, 2024).
- R. Madhusudhan, attended the 7th Cyber Security in Networking Conference (CSNet), Montreal, QC, Canada, and presented a paper on Sept. 4-6 2023
- Prof. P. Sam Johnson, visited University of Central Florida, Orlando, USA, June 16-26, 2023.
- Prof. Jidesh P. Attended IPMESS (International Conference) in Singapore to present a paper, during 3-6, January 2024.

## DEPARTMENT OF MINING ENGINEERING

### Book Chapters

-  Rainaa, A.K. Rishikesh, V. Anand, S. and Ram Chandar, K. (2023). Application of Artificial Intelligence in Predicting Rock Fragmentation: A Review. Applications of Artificial Intelligence in Mining, Geotechnical and Geoengineering. <https://doi.org/10.1016/B978-0-443-18764-3.00003-5>, Ed:
-  Shankar, V. K., B. M., Kunar, B. MKumar Vijee A (2024). Temperature Measurement During Drilling: Scenario and Technologies for Laboratory and Field Investigations. Future Trends in Mechanical Engineering, IIP Series, Vol 3(3), 165-172.

### Patents

- A Patent was granted on 23<sup>rd</sup> November 2023 by the Indian Government to Mr. Bharat Kumar Shanmugham, Dr. Maruthiram Kaza, Prof. Harsha Vardhan, Prof. Govinda Raj Mandela, Dr. Rameshwar Sah, Dr. Arindam Roy Choudhary, Mr. Naveen Omkarappa, Mr. Nagaraju Venkategouda on the title of Material handling system for screening of feeding materials with high screening efficiency and energy efficiency (Joint patent with JSW Steels, Ballari) of patent No: 472545.

- A Patent was granted on 8<sup>th</sup> November 2023 by the Indian Government to Mr. Mudhunuru Varma Raju, Prof. Harsha Vardhan, Prof. Govinda Raj Mandela, Mr. Harish Hanumanthappa, Mr. Bharat Kumar Shanmugham, Dr. Rameshwar Sah on the title of A system for mineral separation and process thereof combining froth floatation and gravity separation (Joint patent with JSW Steels, Ballari) of patent No: 467230.

#### Patents Filed

- TITLE: A Wireless blast vibration monitoring system (NITK Surathkal) INVENTORS: Prof. Harsha Vardhan, Prof. M Aruna & Dr. Abhishek Kumar Tripathi Patent No: 202341084843; Date of Filing: 12-12-2023

#### Visits abroad (Faculty)

- Prof. K. Ram Chandar attended and presented a paper during the International Conference on 'Rock Mechanics for Infrastructure and Geo-Resources Development – an ISRM-sponsored Conference, organized by Sri Lankan Rock Mechanics Association, 3-7 Dec-2023, Colombo.
- Sandi Kumar Reddy (2023). Dynamic Stress Concentration on Barrier Pillars due to Final Excavation by Blasting Gallery Mining, 1st SLRMES International Conference on Rock Mechanics for Infrastructure and Geo-Resources Development 3-7 December 2023, Colombo, Sri Lanka.
- Sandi Kumar Reddy (2023). *Stability Assessment and Design of Open Pit Slopes of Limestone Mines in India*, 4th International Conference on Geology and Earth Sciences (ICGES 2023) 15 -17 June 2023, Bangkok, Thailand.

### DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

#### Books Chapters

- 📖 Prabhu K. N., Metallurgical & Materials Engineering at the National Institute of Technology Karnataka: A Historical Overview, in Indian Metallurgy, Indian Institute of Metals Series, (R. Divakar et al, eds), 2023, 401-407
- 📖 Augustine Samuel and Prabhu K. N., Nanofluid Quench Media for Industrial Heat Treatment, in ASM Handbook 4F, Quenchants and Quenching Technology, Eds. George E. Totten; Rosa Simencio Otero; Xinmin Luo; Lauralice C.F. Canale, ASM International, OH, <https://doi.org/10.31399/asm.hb.v4F.9781627084505>.
- 📖 Prashanth Huilgol, Devadas Bhat P, Udaya Bhat K, Naveen Bharadishettar, Recent Advances in Aluminizing of mild steel plates, in Reference Module in Materials Science and Materials Engineering, Comprehensive Materials Processing, 2e (Elsevier), <https://doi.org/10.1016/B978-0-323-96020-5.00253-3>, p1-24.

#### Patents

- Naveen Bharadishettar, Udaya Bhat K: A new method to produce a highly efficient antimicrobial copper oxide films as intervention against hospital-associated bacterial infections: Patent No: 488674, Grant date: 26/12/2023, Application No: 202341029596, date of filing: 24/4/2023
- Raghul A, Udaya Bhat K Sridhar Balaram: (TEMP/E1/8768/2019CHE) Method and System for Fabricating a Structure Using Additive Manufacturing Wastes of C300 Maraging Steel: Patent grant: 522374, Grant date: 08/03/2024, Application No: 201941009001, date of filing: 08/03/2019

- Subray R Hegde, Preetish Dsilva, Method and system for producing elongated grains in wrought metals with superior creep resistance; Indian Patent No. 465865

### Visits Abroad (Faculty)

- Prof. K.N. Prabhu attended and presented a paper titled "Estimation of Heat Flux Transients During Quench Hardening of Varying Diameter Steel Probes Using IHCP-Phase Transformation Coupled Model." at the *32nd Heat Treating Society Conference and Exposition*. Detroit, Michigan, USA, during 17– 19 October, 2023.
- Dr. Selvakumar Murugesan Visit to Research Stay in Prof. Dr. Ing. Aldo R. Boccaccini Lab through Alexandar von Humboldt Foundation, Germany from 15-05-2023 to 15-08-2023.
- Dr. Selvakumar Murugesan Visit to Southwest University, Chongqing, China for DST – BRICS STI Framework Programme Project Inaugural Ceremony as Project Investigator during 21 – 30 November 2023.

## DEPARTMENT OF MECHANICAL ENGINEERING

### Books Published

- 📖 Chavan, S., Selvaraj, M., Arumuga Perumal, D., Gumtapure, V., Phase change materials in chemical and process engineering, 2023, Multifunctional Phase Change Materials: Fundamentals, Properties and Applications, Elsevier, 978-032385719-2, 10.1016/B978-0-323-85719-2.00002-X and Page 569-585.
- 📖 Chavan, S., Selvaraj, M., Arumuga Perumal, D., Gumtapure, V., Cooling packing and cold energy storage, 2023, Multifunctional Phase Change Materials: Fundamentals, Properties and Applications, Elsevier, 978-032385719-2, 10.1016/B978-0-323-85719-2.00012-2 and Page 587-606.
- 📖 Rituraj Chandrakar, Om Prakash, Rajesh Kumar, Hanuman Reddy Tiyyagura and Saurabh Chandraker, Melting and casting route, 2023, High-Entropy Alloys, 9783110769470, doi.org/10.1515/9783110769470.
- 📖 K.V.J. Bhargav, P. Shanthan, P.S. Balaji, and Ranjeet Kumar Sahu, MOJAYA Coupled with R-method for Optimization of Machining Parameters Used in the Generation of Micro Holes on GFRP Composite Using an In-House Developed  $\mu$ -ECDM System, 2023, Advanced Engineering Optimization Through Intelligent Techniques, Springer, 978-9811992858, doi.org/10.1007/978-981-19-9285-8\_8.

### Patents

- Anish S, Swirl Generator for Human Arterial Network, App. No.201841010102; Dated 20/03/2018, Filed,2018
- Anish S, Dual fence with tapered trailing edge for turbine /compressor blade passage, App. No. 201841003526; Dated 30/01/2018, Filed
- Sathyabhama A, A PASSIVE LEADING EDGE MICRO PROTUBERANCE STRIP, App. No.201741035860, Filed, 2017
- Gangadharan K V, A Nerve Trimming Kit 2.01741E+11, Filed, 2017



- Gangadharan K V, Multi-Material Structure with Controllable Multi Directional Property, 2.01741E+11, Filed, 2018
- Gangadharan K V, Automated Illizarov Apparatus, 2.01641E+11, Filed, 2017
- Gangadharan K V, Variable stiffness MRE spring device, C.000602, Filing, 2018
- Gangadharan K V, MRE Torsional Isolator, C.000657, Filing, 2019
- Ranjeet Kumar Sahu, Method for Generation of Nanoparticles using Advanced Mechanical Micro-Machining Technique, 4294/CHE/2014, Awarded on September 29, 2020.
- Sathyabhama A, S. Raghavendra, A Passive Leading Edge Micro Protuberance Strip, App. No.515403, Date of Patent 26/02/2024.

## SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT

### Posters Presented

#### Dr. Bijuna C. Mohan

- Dhaigude, S. A., & Mohan, B. C (2023). Logistics Service Quality in Social Commerce: Exploring the Mediating Role of Customer Experience. POMS India International Conference, XLRI Jamshedpur. December 4-6, 2023.
- Chuleshwar & Bijuna (2024), *Analyzing factors in Indian agricultural marketing choices: A Comprehensive Study*, 9th PAN IIM World Management Conference-2023, Indian Institute of Management, Sambalpur 22 January to 24 January, 2024.
- Chuleshwar, Bijuna (2024), *Determinants of awareness regarding MSP for nutri-cereals in India*, Responsible Production and Consumption (ICRPC-2024): Agricultural Sustainability and Food Security, School of Management Studies, University of Hyderabad, 5th to 7th March, 2024

### Conferences

- Prof. S. Pavan KumarThasleena, K., & Kumar, S. P. (2023). Strategic alliances for digital prosperity: Leveraging AI-driven inclusive design in collaborative transformation initiatives. Paper presented at the 9th PAN IIM World Management Conference 2023, India.
- Raju, S., T.M, Rofin., S., & Kumar, S. P. (2023). Comparing equal channel power, distinct channel power and crisis cartel in mitigating the effect of production cost disruption. Paper presented at the POMS India International Conference, XLRI Jamshedpur, India.
- Sahoo, P., Kumar, S. P., & Uchil, R. (2024). Industry 4.0 challenges assessment through DEMATEL approach and mitigation strategies through GRID framework. Paper presented at IIM Sambalpur, India.
- Kirupa Priyadarsini, M., & Kumar, S. P. (2024). Empowering engineers for research careers–Role of undergraduate research experience and institutional support. Paper presented at the Eleventh International Conference on Transformations in Engineering Education (ICTIEE 2024), organized by IUCEE, India. Published in Journal of Engineering Education Transformations



**Prof. Pradyot Ranjan Jenna**

- Datta, K & Jenna, P.R (2024). Green Climate Fund: A Comprehensive Review of its Contributions to Climate Change Mitigation and Adaptation. Presented at the 9<sup>th</sup> INDAM National Conference on “creating impact through responsible leadership & Sustainable Business Practices” Organized by INDAM and Goa Institute of Management, January 11-13,2024 at Goa Institute of Management, Goa.
- Revitalizing Sustainability: Exploring Synergies between Green Finance and Renewable Energy Shift through a Bibliometric and Content Analysis. Presented at Twelfth Biennial Conference Indian Society for Ecological Economics (INSEE), organized by INSEE at BML Munjal University, Gurugram, Haryana, held on 31<sup>st</sup> Jan-02 Feb 2024
- Jenna, P.R (2024). Potential of Climate-Smart Agricultural Practices to Build Climate Resilience: Evidence from Eastern India Presented at the "3rd International Symposium on Disaster Resilience and Sustainable Development (DRSD 2023)" Organized by Asian Institute of Technology and Disaster Resilience and Sustainable Development, 7th-8th December 2023, AIT Conference center Thailand.

**Prof. Ritanjali Majhi**

- Estimating the impact of news on Indian government decisions to contain the spread of COVID-19 in India, AIP Conference Proceedings Volume 2745, Issue 111 July 2023 Article number 0200092022 International Conference on Applied Mechanics, Machine Learning and Advanced Computation, AMMLAC 2022Virtual, Online16 March 2022through 17 March 2022Code 190527.
- Consumer Behavioural Intention to Participate in Obsolete Mobile Phone Recycling: A Case Study from Karnataka State, India, International Conference on Sustainable Business Management (SBM 2023) Organizers: Department of Management Studies (DoMS), Indian Institute of Technology Roorkee; Arizona State University, USA March 23-25, 2003.
- Behavioural Intention of Consumers to Participate in Obsolete Mobile Phone Recycling: An Evidence from Karnataka State, India, International Society for Data Sciences and Innovation – Global (ISDSI-G), Indian Institute of Management Ranchi, December 26-29, 2023
- Determinants of Attitude Towards Formal Recycling of Obsolete Mobile Phones: An Evidence from Karnataka State, India, 9th Pan IIM World Management ConferenceOrganizers: Indian Institute of Management SambalpurJanuary 22-24,2024.

**Visits Abroad (Faculty)**

**Prof. Pradyot Ranjan Jena**











- Jenna, P.R (2024). Potential of Climate-Smart Agricultural Practices to Build Climate Resilience: Evidence from Eastern India Presented at the "3rd International Symposium on Disaster Resilience and Sustainable Development (DRSD 2023)" Organized by Asian Institute of Technology and Disaster Resilience and Sustainable Development, 7th-8th December 2023, AIT Conference center, Thailand.

**Dr. Bijuna C. Mohan**

- Dr. Bijuna C Mohan attended the course on Qualitative Research Methods & Data Analysis, conducted by Global School in Empirical Research Methods, University of St. Gallen, Switzerland from 19<sup>th</sup> to 23<sup>rd</sup> June 2023

**DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING**

## Book Chapters

-  Abhishek G. Karaseeri, Athul Krishna K.R. & D. Karmakar., “Wave transformation due to stratified porous structure and vertical barrier”, AIP Conference Proceedings, 2584, 050006- 1–050006-8
-  Rony J.S. & D. Karmakar., “Dynamic analysis of submerged tension leg platform combined wave energy converters under different mooring configuration”, AIP Conference Proceedings, 2584, 050009-1–050009-10.
-  Abhishek Gupta, Shilna K. and D. Karmakar., “Prediction of hydrodynamic coefficients of stratified porous structure using Artificial Neural Network (ANN)”, Lecture Notes in Networks and Systems (LNNS), 698, 225-237.
-  Abhishek Gupta, D. Karmakar., “Prediction of hydrodynamic performance of submerged composite porous breakwater using Support Vector Machine”, Algorithms for Intelligent Systems (AIS), 137-148.
-  T. S. Sreejith, Vadivuchezhian Kaliveeran., “Stress Analysis of a Member of Jacket Structure with Different Types of Stiffeners”, Dynamic Behavior of Soft and Hard Materials, Volume 3, 193-204,
-  N. Murugan, Vadivuchezhian Kaliveeran., “Experimental Investigation of the Behavior of Tubular T-Joint of Jacket Structures”, Dynamic Behavior of Soft and Hard Materials, Volume 3, 135-145, [http://dx.doi.org/10.1007/978-981-99-6259-4\\_13](http://dx.doi.org/10.1007/978-981-99-6259-4_13)
-  Saiarpan V Joshi, Vadivuchezhian Kaliveeran.,” Stress Analysis of Thin Rectangular Sections Subjected to Twisting Moment”, Dynamic Behavior of Soft and Hard Materials, Volume 3, pp.179-192
-  Gautam Kumar., Vadivuchezhian Kaliveeran.,” Structural Analysis of Non-prismatic Column Using Finite Element Approach”, Dynamic Behavior of Soft and Hard Materials, Volume 3 (pp.205-215)
-  Parthasarathy K S S, Subrahmanya Kundapura.,” Mapping of Flood-Inundated Urban Regions Using Sentinel-1 SAR Imagery for the 2018 and 2019 Kerala Floods”, Recent Development in River Corridor Management, 279-292, [http://dx.doi.org/10.1007/978-981-99-4423-1\\_20](http://dx.doi.org/10.1007/978-981-99-4423-1_20)
-  Alka Abraham, Subrahmanya Kundapura.,” Identifying the Potential Impacts of Climate Change on Streamflow in a Humid Tropical Basin”, Recent Development in River Corridor Management, 251-263, [http://dx.doi.org/10.1007/978-981-99-4423-1\\_18](http://dx.doi.org/10.1007/978-981-99-4423-1_18)



## 8. INDUSTRY INSTITUTE INTERACTION

### 8.1 Centre for Innovation, IPR, and Industrial Consultancy (CIC):

The CIC at NITK, Surathkal, is engaged in building Institute Industry Collaboration for mutual benefit. The CIC is headed by an Associate Dean (Testing and Consulting) and a faculty-in-charge (Institute Innovation Council). The Associate Dean (T&C) and FIC (IIC) report to the Dean (Research and Consultancy) and Director. The CIC office is mainly involved in handling Testing Consultancy works and Patent works of all the departments in the Institute:

#### Patents filed, Published, and Granted for the year 2023-2024: -

➤ No. of Patents Filed	35
➤ No. of Patents Published	54
➤ No. Patents Granted	22

#### Testing and Consultancy works: -

Testing and consultancy revenue generated for the year 2023-2024

Year	Total Revenue
2023-2024	650 Lakhs

#### Memorandum of Understanding: -

Date of Signing MOUs	Duration	Organization/Institute	Domain
12-12-2023	2 Years	The Society for Bharat Ratna Sir M Vishveshvaraya National Training Facility for Skills for all (BMVNSTFSA) Chikkaballapur	Both parties desire to promote the concept of Skills training aimed at creating Master Trainers for organizations for the up-skilling of existing employees in a structured and effective way through this cooperative and collaborative model.
3-10-2023	1 Year	Marelli India Pvt. Ltd.	The focus of the NITK-Marelli CSR Project Initiative 2023 is in line with the Government of India's Skill India Mission, with an aim to introduce students to experiential learning and industry-standard practices. Supported by Marelli's CSR funding, the initiative has centered on student upskilling activities within the automotive sector. The primary goal is to cultivate innovation, build talent, and foster creativity in technical education that ultimately contributes to the automotive industry's talent pool. Marelli and NITK have prioritized student skill enhancement, value-added education and industry readiness, aligning our joint efforts with the broader goals of societal and environmental responsibility. Through this CSR-led initiative, Marelli and

			NITK aimed to positively impact the professional trajectory of the talented youth, while also contributing positively to the automotive industry's sustainable development
26-08-2023	5 Years	NITK Foundation, USA	The parties shall work towards the vision and mission of NITK by strengthening its ecosystem for education, research, innovation and outreach and by supporting the students, faculty, staff, alumni and other stakeholders in defining and implementing mutually agreed Projects
14-06-2023	3 Years	Techmillennials Private Limited, Mangaluru	To foster collaboration in various areas such as research and development projects, enhancing skills and training, and engaging in several other mutually agreed activities.

## 8.2 MoUs and Technology Transfer

- **MOU exchange with NITK Foundation, USA**



NITK Surathkal Signed an MOU with NITK Foundation, USA. The parties shall work towards the vision and mission of NITK by strengthening its ecosystem for education, research, innovation and outreach and by supporting the students, faculty, staff, alumni and other stakeholders in defining and implementing mutually agreed Projects.

- **MOU exchange with BMVNTFSA**



On the 23rd of January, 2024, a formal Memorandum of Understanding (MOU) was signed between the National Institute of Technology Karnataka (NITK) and The Society for Bharat Ratna Sir M. Visvesvaraya National Training Facility for Skills for All (BMVNTFSA), which is located in Angatta village, in close proximity to Muddenahalli, Chikkaballapur.

The MOU signifies the commitment of both parties to work jointly toward a structured and effective training program aimed at developing Master Trainers in various fields of engineering and technology. The BMVNTFSA Society has expressed its desire to collaborate with NITK for the promotion and conduction of master technical training courses to eligible trainees, with the goal of enhancing their engineering skill set and workplace performance.

Both parties are keen to promote the concept of Skills Training, with the aim of creating Master Trainers for organizations. This initiative is intended to up-skill existing employees in a structured and effective manner through a cooperative and collaborative model.

Dean Alumni and Corporate Relations, Prof. Shrikantha S Rao, Srinivas Rao Kulkarni, Director, BMVNTFSA, and former, and Rtd. Prof. Vijay Desai were present during the MoU exchange.

## 8.3 Innovations & Technology Transfer

### 8.3.1 Existing/ Completed Initiatives:

#### 1. DEPARTMENT OF CIVIL ENGINEERING

Central Plantation Crops Research Institute, Kasaragod, a constituent of the Indian Council of Agricultural Research and Department of Civil Engineering, National Institute of Technology Karnataka, Surathkal, signed a Material Transfer Agreement on 05th Jan 2024 for the transfer of beneficial microbes for manufacturing self-healing concrete, represented by Prof. Subhash C Yaragal and Dr. T Palanisamy.

#### 2. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Full system modeling of POWER9 processor in a standard architecture simulator, gem5. The models are in the queue to being up-streamed in the core gem5 thread.

#### New initiatives:

#### 1. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The process is going on to set up an MoU with ICMR- National Institute for Research in Tuberculosis.

#### 2. DEPARTMENT OF CHEMISTRY

Details of Innovation/Patent	Names of faculty/staff/students involved
Polyoxometalates Solution for Removing Corrosion from a Corroded Metal Surface and a Method Thereof” Indian Patent Office, Patent Application no. 202341014271, 2024.	Mal, Sib S. P K., Muhammed A
“A high-performance supercapacitor device of polyaniline-triethyl amine ionic liquid combined phosphomolybdate electrode and method thereof” India patent Office, Patent application no. 202141007885, 2024.	Mal, Sib S. Dutta, Saikat; Vannathan, Anjana A. P K., Muhammed A.
“Method of preparation of high energy density conducting polyaniline-phosphovanadomolybdate nanohybrid electrode for supercapacitor device application” Filed India patent office, Patent application no. 202041047069, 2024.	Mal, Sib S., Vannathan, Anjana A.
“Method of preparation of activated carbon-supported vanado-nickelate (IV) nanohybrid -electrode for high-performance supercapacitors device application” Filed India patent office, Patent application no. 202041047070, 2024.	Mal, Sib S.; Das, Partha P. Maity, Sukanya and B M., Neetu
“Method to determine and differentiate inorganic arsenic ions (arsenite, As <sup>3+</sup> and arsenate As <sup>5+</sup> ) and a method of synthesis of receptor R”, Indian Patent Office, Patent No. 433799, Patent application No. 202241027167, Grant date 06/06/2023	Nagaraj K, Nityananda Shetty, Darshak R Trivedi
A Chemosensor Probe for Colorimetric Optical Detection and Differentiation of Arsenite and Arsenate ions and ratiometric Detection of Carbonate ions, Indian Patent Office, Patent No. 438210, Patent application No. 202241020701, Grant date 11/07/2023	Nagaraj K, Nityananda Shetty, Darshak R Trivedi,

“Chromogenic Probe for selective ratiometric detection of arsenite and method of synthesis of the Probe P”, Indian patent Office, Patent application No. 202341071657, Oct 20, 2023 (Published on 15/12/2023)	Nagaraj K, Nityananda Shetty, Darshak R Trivedi
“Method of detection of arsenite anion”, Indian patent Office, Patent application No. 202341089725, Dec 29, 2023 (Published on 19/01/2024)	Nagaraj K, Nityananda Shetty, Darshak R Trivedi
“Method for Synthesizing and Preparing Metal Complexes by way of Schiff Base Ligand” Indian Patent Office, Patent application No. 202341041829	Rasheeda M Ansari, Dileep Ramakrishna, Badekai Ramachandra Bhat
Metal chalcogenide-based nanoalloy compositions for seawater splitting and method there of Indian patent Office, Patent application No. 202341041828	John D Rodney, Sindhur Joshi, S. Deepapriya, Lavanya Rao, Badekai Ramachandra Bhat, N. K. Udayashankar, C. Justin Raj.
A method for the preparation of starch-based bioplastic film with activated carbon Indian patent Office, Patent application No. 202341056528	Nirmal Mazumder, Pooja N., Nafisa Yeshmin Ahmed, Neha P Santhosh, Sib Sankar Mal, Ishita Chakraborty, Krishna Kishore Mahato
Chromogenic Probe for Selective Ratiometric Detection of Arsenite and Method of Synthesis of the Probe P Indian patent Office, Patent application No. 2341071657	Nagaraj K, A Nityananda Shetty, Darshak R Trivedi
Method of Detection of Arsenite Ions. Indian Patent Office, Patent application No 202341089725	Nagaraj K, A Nityananda Shetty, Darshak R Trivedi.
N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl) Acetamide and Method of Preparation Thereof, Indian patent Office, Patent application No. 202441002397	Rajkumar Reddyrajula, Udaya Kumar Dalimba.

### 3. DEPARTMENT OF INFORMATION TECHNOLOGY

- ❖ Prof. G. Ram Mohana Reddy delivered Keynote Talk on “AI-based Decision-Making Frameworks for Smart Applications – Some Use Cases”, XX Control Instrumentation System Conference (CSICON 2023), MIT, MAHE Manipal, Karnataka, Oct. 6-7, 2023.
- ❖ Prof. G. Ram Mohana Reddy delivered Keynote Talk on “Internet of Things: Key Technologies, Architectures, and Smart Applications”, IEEE CS Region 10 CS Summer School (R10CSSS) Program, ANITS, Visakhapatnam, Andhra Pradesh, Sept. 12-15, 2023.
- ❖ Prof. G. Ram Mohana Reddy delivered Keynote Talk on “AI-based Decision Frameworks for Smart Environments – Some Case Studies”, 2<sup>nd</sup> Int. Conf. on Applied Data Science (ICADS 2023), Santa Clara, Silicon Valley IEEE CS Chapter, USA, July 25, 2023.
- ❖ Prof. G. Ram Mohana Reddy delivered a Talk on “An Effective Early Detection and Prediction System for Gas Leakage in Smart Environments”, 14<sup>th</sup> IEEE Int. Conf. o Computing, Commn. And Networking Technologies (ICCCNT 2023), IIT Delhi, July 6-8, 2023.
- ❖ Prof. G. Ram Mohana Reddy delivered an Expert Talk on “Fog-based Frameworks for IoT/IIoT Service Placement and Data Analytics in Smart Application Environments”, IEEE CS EXA DVP EVENT on “Latest Trends on Smart Computing”, June 3, 2023.
- ❖ Prof. G. Ram Mohana Reddy delivered Keynote Talk on “Research Trends in AI & IoT and Smart Applications”, FDP on Recent Research Trends and Applications of AI & IoT, E&ICT, NIT Warangal and NNRG Integrated Campus, Hyderabad, May 6, 2023.



#### 4. DEPARTMENT OF MECHANICAL ENGINEERING

- ❖ Dr. Ajay Kumar Yadav & Dr. Anish S, Development of solar-based low energy humidifier (air cooler) linked with groundwater.
- ❖ Dr. Ajay Kumar Yadav, Prof. Laxminidhi T, Prof U. Sripathi Acharya, Dr. PU Saxena, Prof. B Satish Rao, Development of Cost-Effective Radiofrequency Ablation System and Magnetic Hyperthermia Equipment for Thermal Therapies of Cancerous Tumors.
- ❖ Dr. S Kattimani and Prof. S.M. Murigendrappa, Experimental Characterization and Numerical Modeling of Delamination Growth In Fiber Reinforced Polymer Laminated Composites Under Cyclic Loading
- ❖ Dr. S Kattimani, Active Vibration Control of Laminated Composite Sandwich Plates in Hygrothermal Environment Using 1-3 Piezoelectric Composites.
- ❖ Dr. Arumuga Perumal D, Experimental Investigation on Pulsating Synthetic Jet Micromixers to Determine the Injection Dynamics of Insulin In Hydrogels For Subcutaneous Drug Delivery.
- ❖ Dr Sudhakar C Jambagi, Improvement in The Properties of Thermally Sprayed Hydroxyapatite Bio-Ceramic Coating Reinforced with Nanostructured Materials.
- ❖ Dr. Sathyabhama A, Experimental and Numerical Investigation of Effect of Leading-Edge Protuberances on The Performance of Wind Turbine Blade.
- ❖ Dr. A. S. S. BALAN, Ultrafine Grain Refinement Through Low Plasticity Burnishing on Waam of Mgalloy for Aerospace and Automotive Applications.
- ❖ Dr. H Shivananda Nayaka, Experimental Technique to Induce Surface Grain Refinement Through Laser Shock Peening on Ecap Processed Mg. Alloy.
- ❖ Prof. C. Sujatha and Dr. Hemantha Kumar, Design of Magneto Rheological Damper for Vehicular Applications.
- ❖ Dr. Hemantha Kumar and Prof. C. Sujatha, Development of Cost-Effective Magneto-Rheological (Mr) Fluid Damper in Two Wheelers and Four Wheelers Automobile to Improve Ride Comfort and Stability.
- ❖ Dr. Sharnappa Joladarashi and Dr. Hemantha, Kumar Experimental Investigation of Passive, Semi-Active and Active Vibration Control of Composite Sandwich Structure.
- ❖ Dr. Ranjith M, Investigations on The Dynamic Behaviour of Bacterial Helical Flagellar Filaments Under Axial Flow.
- ❖ Dr. MrityunjayDoddamani and Dr. Srikanth Bontha, Development of Composite Filament for Light Weight 3D Printed Components.
- ❖ Dr. MrityunjayDoddamani, Pre-Operative Damage Assessment in Orthopedic Surgery Using 3D Printing to Minimize Healing Time.
- ❖ Dr. K V Gangadharan, Development of Brushless Dc (Bldc) Motors for An Automotive Power Window Application.
- ❖ Dr. Pruthviraj U and Dr. K V Gangadharan, Design of Oil Skimming Application with Super Hydrophobic Sponge.
- ❖ Dr. K V Gangadharan and Dr. Jeyaraj, Tpem - Fame India Scheme - "Switched Reluctance Motor & Controller For 2W & 3W".
- ❖ Dr. K V Gangadharan and Dr. Pruthviraj U Virtual Lab Phase Iii.
- ❖ Dr. KK Poornesh, Investigations on the origin of hydration-induced yield.
- ❖ Dr. KK Poornesh, Interface CharacteristicsOf Membrane Electrode Assemblies.
- ❖ Dr. N. Gnanasekaran, Analytical and Numerical Investigations of Mixed Convection Through Wire Mesh Porous Structure Filled in a Channel.
- ❖ Dr. Mrityunjay Doddamani, NITK and Dr. Pavana Prabhakar, University of Wisconsin - Madison, USA, Additive Manufacturing of Novel Structural Foam Composites for Durability and Damage Tolerance.
- ❖ Dr. Anish S and Dr. Mrityunjay Doddamani An investigation into the effects of induced helicity in the carotid bifurcated arteries on patient-specific models.



- ❖ Dr. Mrityunjay Doddamani, Cost-effective enhanced insulating foams for cold storage application.
- ❖ Dr S. Kattimani, NITK Surathkal, Dr. Mabdi Shariati, Universiti Teknologi Malaysia, Malaysia and Dr. NGUYEN THO TRUNG, Ton Due Thang University, Vietnam, Investigation on radiolucent composite sandwich materials for biomedical imaging systems under hygrothermal environment.
- ❖ Dr. Ajay Kumar Yadav, Numerical and experimental studies on two-phase carbon dioxide-based natural circulation loops.

## COLLABORATIONS:

### 1. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

#### With Industry:

- |                        |                            |                        |
|------------------------|----------------------------|------------------------|
| ▪ Anvetion Labs        | ▪ CSIR Labs                | ▪ LEOS, ISRO           |
| ▪ Bharat Electronics   | ▪ Emulex Communications    | ▪ MCIT, Govt. of India |
| ▪ Cadence              | ▪ Fluxgen Engg. Technology | ▪ NIO Goa              |
| ▪ Calligo Technologies | ▪ Google                   | ▪ Robert Bosch         |
| ▪ CoreEL Technologies  | ▪ Infineon Technologies    | ▪ SITAR                |
| ▪ Synopsys             | ▪ Texas Instruments        | ▪ Xilinx               |

**Nature of Collaboration (academic, research, training, etc):** Academic and Research.

**Period/Duration:** April 2023 to March 2024.

### 2. DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- Name of the Faculty: Dr. Prajof P., And Dr. B. Dastagiri Reddy  
Name of Industry: Hella India Automotive Pvt. Ltd., Pune  
Nature of Collaboration (academic, research, training, etc.): Research  
Period/Duration: November 2022 onwards
- Name of the Faculty: Dr. Dharavath Kishan  
Name of Industry: Lapa Electric Pvt. Ltd., Bangalore  
Nature of Collaboration (academic, research, training, etc.): Research  
Period/Duration: March 2022 onwards

### 3. DEPARTMENT OF MECHANICAL ENGINEERING

- IFB Goa, Industry-sponsored research, Dr. Hemanth Kumar, Dr. Jeyaraj P, Dr. Sharanappa, Dr. K V Gangadharan
- NMPT, Industrial Consultancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- MRPL, Industrial Consultancy, Dr. K V Gangadharan, Dr. Pruthviraj (app Mech)
- NMPT, Industrial Consultancy, Dr. Pruthviraj (AppMech), Dr. Sheena (SOM), Dr. K V Gangadharan
- Wonderla Kochin, Industrial Consultancy, Dr. K V Gangadharan
- Wonderla Bangalore, Industrial Consultancy, Dr. K V Gangadharan
- Wonderla Hyderabad, Industrial Consultancy, Dr. K V Gangadharan
- MRPL, Management Training Program, Dr. Sheena (SOM) Dr. K V Gangadharan
- OMPL, Industrial Consultancy, Dr. Ranjith and Dr. K V Gangadharan
- Clasic Fussion, Industrial Consultancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- Hi-Tech Batteries, Industrial Consultancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- IKP knowledge park, BRIC Hackathon, Dr, Sowmya Kamath (CS) and Dr. Suprabha (SOM), Dr. K V Gangadharan
- MRPL, INVENCIO - Design Contest, Dr. Pruthviraj (AppMech), Dr. K V Gangadharan

- Rambal India Ltd. Chennai, Industry-sponsored research, Dr. Hemantha Kumar, Prof. K.V. Gangadharan, Dr. Sharnappa J, Dr. Mohd.Rizwan Rahman (Material and Metallurgy Engg),
- Ashok Leyland Ltd. Chennai, Industry-sponsored research, Dr. Hemantha Kumar, Prof. K.V. Gangadharan, Dr. Sharnappa J, Dr. Mohd.Rizwan Rahman (Material and Metallurgy Engg)
- Arya Technocrats, Belgaum, Collaboration for Fabrication, Dr. Hemantha Kumar
- AUM Techno Spray, Research, Dr. Ramesh M R and Dr Sharnappa J
- Flow and Force Engineers, Bangalore, Industrial partner in the ongoing IMPRINT project, Dr. Ajay Kumar Yadav
- M/s Siskin Instruments, Bangalore, Industrial partner in the ongoing IMPRINT project, and DST CERI project, Dr. Ajay Kumar Yadav

#### **4. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT**

- Name of the Faculty: Dr. Bijuna C. Mohan  
Name of the industry: - Xupoli Technologies, USA  
Nature of Collaboration (academic, research training, etc): - Consultancy  
Period/Duration: - 3 months  
Name of the industry: - New Mangalore Port Trust  
Nature of Collaboration (academic, research training, etc): - Consultancy  
Period/Duration: - 2 years

#### **5. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING**

- Name of the Industry: Indian Navy, Research and Training
- Name of the Industry: MRPL, Consultancy and Training



## 9. HUMAN RESOURCE DEVELOPMENT

### 9.1 Training Status

#### 1. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- Dr. P. Santhi Thilagam attended the Nurturing Future Leadership Program at IIT Madras Chennai from 11-15 March 2024.
- Dr. Shashidhar G Koolagudi attending the Nurturing Future Leadership Program at IIM Raipur from 11-15 March 2024.

#### 2. DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- Dr. Prajof P. Participated and completed FDP on "Motor Control Design and Code Generation with Simulink", MIT Manipal, in association with MathWorks, 16-18 August 2023.
- Dr. Krishnan C.M.C attended the IEEE Region 10 (TENCON) 2024 conference in Chiang Mai, Thailand and presented a paper on "Feature Selection and Ranking in EMG Analysis for Hand Movement Classification" from 31 October - 03 November 2023.

#### 3. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT

- Dr. Rahul Sivarajan, attended the online workshop on 'Crafting and Conducting High-Quality Case-Based Research' held on 07th – 11th August, 2023 by the School of Business Studies, Sharda University.
- Dr. Rahul Sivarajan, attended the online workshop on 'Qualitative Research Study and Data Analysis using Nvivo' held from 30th October to 4th November 2023 by K J Somaiya Vidyavihar University
- Dr. Rahul Sivarajan, attended the online workshop on 'Qualitative Research Study and Data Analysis using Nvivo' held from 30th October to 4th November 2023 by K J Somaiya Vidyavihar University

#### 4. DEPARTMENT OF INFORMATION TECHNOLOGY

- Prof. G. Ram Mohana Reddy attended the IEEE Computer Society Distinguished Visitor Program (IEEE CS DVP) EXA Event (Webinar) On "Latest Developments and Trends on Smart Computing", June 3, 2023.
- Prof. G. Ram Mohana Reddy attended the Global Partnership on Artificial Intelligence (GPAI) Summit 2023, Dec. 12-14, 2023, Bharat Mandapam, New Delhi, Conducted by the Ministry of Electronics and Information Technology (MeitY), Govt. of India.
- Prof. G. Ram Mohana Reddy attended the Indian Knowledge System Special Keynote Lecture on "Effect of Axial Precession of Earth as Depicted in Sanskrit Texts and Its Relevance in IKS Studies", by Prof R N Iyengar (Distinguished Professor (Rtd.), Civil Engineering Department, Indian Institute of Science Bangalore), NITK Surathkal, Feb. 14, 2024.
- Prof. G. Ram Mohana Reddy attended a Workshop on "Knowledge Sharing w.r.t Power of Intellectual Property Rights", NITK, Feb. 15, 2024.
- Prof. G. Ram Mohana Reddy attended the National Workshop on "Unleashing Innovations For and From Grassroots", by Prof Anil K Gupta (Founder, Honey Bee Network, SRISTI, GIAN & NIF Visiting Faculty, Professor of IIM Ahmedabad (Rtd.)) and Dr. Anamika Dey (CEO, GIAN), NITK Surathkal, February 24, 2024.
- Dr. Geetha V attended a five-day residential program on Nurturing Future Leadership" at IIM Visakhapatnam from 11th to 15th March 2024.
- Dr. Jaidhar C D attended a five-day residential program on Nurturing Future Leadership" at IIT Madras from 11th -15th March 2024.

- Dr. Bhawana Rudra attended a five-day residential program on Nurturing Future Leadership" at IIM Mumbai from 11th -15th March 2024.
- Dr. Biju R Mohan attended a five-day residential program on Nurturing Future Leadership" at IIM Calcutta from 18th to 22nd March 2024.

## 9.2 Placement of Staff for Academic Excellence

### 1. DEPARTMENT OF CHEMICAL ENGINEERING

- ❖ Dr. Rajmohan B, Technical Committee Member and Session Chair in the 1st International Conference on the Practical Zero Emissions Technologies and Strategies (PZETS 2023), 9 – 12, December 2023, Rex Hotel, District 1, Ho Chi Minh City, Vietnam.
- ❖ Prof. Prasanna Belur and his team presented their innovative technology of producing ready-to-cook, non-acrid aroid cubes from root vegetables such as elephant foot yam, taro, tannia, and giant taro at IInvenTiv-2024, India's Premier R&D Innovation Fair held at IIT Hyderabad during 19-20 January 2024.
- ❖ Prof. Prasanna Belur Delivered an invited talk "IPR creation and monetization from Inventors perspective" at a two-day National Workshop on IPR, held at Mangalore organised by ASSOCHAM, New Delhi.
- ❖ Prof. Prasanna Belur Delivered a Keynote lecture on "IP creation & Management" at the National Conference on I.P.R, Innovations and Entrepreneurship held at Graphic Era Hill University, Bhimtal, Uttarakhand.
- ❖ Aswath K.S & Prasanna B.D presented a poster &; secured third prize in BioSangam-2024, held in MNNIT Jaipur on 23-25, February 2024.
- ❖ Ms. Deeksha Mathew and Prof. Vidya Shetty have been selected as the recipients of the prestigious IChE Awards for the year 2023 for the paper titled "Visible light irradiated photocatalytic reduction of CO<sub>2</sub> to hydrocarbons using hybrid polyaniline/CuO nanocomposite in aqueous system"
- ❖ Prof. and his team have been honored with the Best Oral Presentation Award for the paper titled "The Catalytic Effect of Chromium-Doped Ceria Praseodymium on Spot Oxidation and Its Kinetics" at INCEEE-2023, hosted by NIT Warangal.
- ❖ Prof.Vidya Shetty K and Ms Deeksha Mathew received "Indian Institute of Chemical Engineers -SISIR Kumar Mitra Memorial Award for the Second-Best Technical Paper published in Indian Chemical Engineer during the year 2022" during the Inaugural session of IChE-CHEMCON 2023 on 27th December 2023.
- ❖ Prof Vidya Shetty K and her Research group of students( Chetan M, Shivani R.J, Preethi, Deekshitha.Anjali.S Pawar, Thanush Shetty ) of the Chemical Engineering Department are awarded the Best Paper award for the paper &; Bio-chemo sequential synthesis of silver oxide nanoparticles embedded in TiO<sub>2</sub> shell (BioAg<sub>2</sub>O@TiO<sub>2</sub>): A visible light active photocatalyst for dye degradation" presented at IChE-CHEMCON- 2023 held at Heritage Institute of Technology, Kolkata during 27-30 December,2023.
- ❖ Prof.Vidya Shetty K attended as a plenary speaker at the International Conference on Energy Transition: Challenges and Opportunity CHEMCON-2023 organized by the Indian Institute of Chemical Engineers (IChE) during December 27-30, 2023, held at HIT Kolkata
- ❖ Prof.Vidya Shetty K attended as a plenary speaker at 2 nd International Conference WARMS- 2024: WATER RESOURCES MANAGEMENT AND SUSTAINABILITY: SOLUTIONS FOR ARID REGIONS organized by United Arab Emirates University, at Dubai during 26-28 February 2024.
- ❖ Dr. Vidya Shetty K -Member of the Taskforce to prepare a Report "On the Impact of Emerging AI Tools on Employment of Engineering Graduates and Recommendations for Engineering Education" for the Ministry of Education, Gol.

- ❖ Dr. Vidya Shetty K -Expert Member of Selection Committee for Promotions for Chemical Engineering MAHE, Manipal.
- ❖ Dr. Vidya Shetty K, Member Departmental Advisory Board, Department of Chemical Engineering, MIT Manipal
- ❖ Dr. Vidya Shetty K, VTU Nominee for BOS for Department of Chemical Engineering, R.V College of Engineering
- ❖ Dr. Vidya Shetty K, VTU Nominee for BOS for Department of Chemical Engineering, BMS College of Engineering
- ❖ Dr. Vidya Shetty K, Member of First Year Board of Studies, MIT Manipal
- ❖ Dr. Vidya Shetty K, Member of the Board of Studies (Chemical Engineering) of KLE Technological University, Hubballi.
- ❖ Dr. Vidya Shetty K, Member of BOS, Department of Chemical Engineering, SIT Tumkur
- ❖ Dr. Vidya Shetty K, Member of BOS, Department of Chemical Engineering, MVJ College of Engineering
- ❖ Dr. Vidya Shetty K, Member of the Board of Studies for Chemical Engineering, Karnataka Polytechnic Mangalore
- ❖ Sanjith S. Anchan (PhD. Scholar), guided by Dr. Chinta Sankar Rao, won the Best Oral Presentation in Process Control at ChemEEE 2024 organized by the Department of Chemical Engineering at IPE Vishakhapatnam.
- ❖ Dr. Chinta Sankar Rao Delivered a guest lecture on “Thermochemical conversion of Biomass and WastePlastics: Machine Learning Modeling to predict pyro-product yields” in KARYASHALA: One week workshop on Process modeling of thermochemical processes for the conversion of biomass to bio-fuels (PTPCBB-2024), Organized By Department of Chemical Engineering National Institute of Technology Rourkela, March 11-17
- ❖ Prof. Prasanna Belur. D has been conferred with the "Award for outstanding research publication for the year 2022-23" by Vision Group for Science & Technology (VGST), Govt. of Karnataka. The VGST is chaired by Bharat Ratna Prof. C.N.R. Rao.
- ❖ Ashraf Ali B., S M Abdul Azeem, Jatin Kaushal and Anish Fulzele Received best oral presentation at INTERSECT'24, Central Electrochemical Research Institute, Karaikudi.
- ❖ Dr. Ahraf Ali gave an Expert Lecture on Mathematical Modelling of Heat transfer problems held on 17-11-2023, Department of Chemical Engineering, IIT Madras.
- ❖ Dr. S. Jitendra Pal attended as a plenary speaker and Chaired a Session at the 10<sup>th</sup> International and 50th National Conference on Fluid Mechanics and Fluid Power FMFP) organized by IIT Jodhpur, India during December 20-22, 2023. 2.

## 2. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

### Prof. S. Anandhan

- ❖ Referee for research proposals submitted for funded projects to the Board of Research in Nuclear Sciences (BRNS).
- ❖ Subject Expert in the Programme Advisory Committee for the selection of the Emeritus Scientist under Kerala State Council for Science Technology and Environment (2024).
- ❖ Reviewer for proposals submitted to KSCSTE (Kerala State Council for Science, Technology & Environment)'s Emeritus Scientist Scheme and BLP Post-Doctoral Fellowship, 2023.
- ❖ A research paper titled 'A new multifunctional energy harvester based on mica nanosheets-dispersed PVDF nanofabrics featuring piezo-capacitive, piezoelectric and triboelectric effects' has been featured in a cross-journal collection celebrating the scientific accomplishments of RSC Fellows (RSC Applied Polymers, DOI: 10.1039/D3LP00080J).
- ❖ Received an invitation to submit an 'invited paper' to the prestigious RSC journal 'Dalton Transactions' in July 2023.

### 3. DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- ❖ Dr. G. S. Punekar delivered an invited talk at IEI (India) Mangalore Local Center on "The Spectacular Lightning: Revisiting Some Interesting Facts" on 13 June 2023.
- ❖ Dr. Dattatraya N. Gaonkar delivered the keynote address on "Operation and Control of Smart Grid with Renewable Energy Systems and EV", at the IEEE International Conference organized by K.S.R. College of Engineering, Tamilanadu.

## 10. STUDENTS

### 10.1 Admissions and On Roll

#### 10.1.1 Admission Procedure

##### **B. Tech.:**

The Government of India, Department of Ministry of Education (erstwhile MHRD) issued a uniform admission procedure for all the NITs in the country. Candidates seeking admission to NIT are required to appear for the JEE (Main) conducted by NTA. Seats are filled up as per the merit list prepared based on the JEE (Main) Examination and qualifying examination scores. According to the All-India rank prepared based on the performance in JEE (Main), seats will be allotted in the centralized online campus counseling through the Central Seat Allocation Board (CSAB). The seat allocation is done on the basis of 50% Home State Quota (HS) and 50% Other State Quota (OS). These seats are filled on the All India ranking Merit Basis (JEE Main). Seats are reserved for candidates belonging to Scheduled Caste, Scheduled Tribes, Persons with Disabilities (PWD,) Other Backward Classes and Economically Weaker Sections (EWS) as per the guidelines issued by the Ministry of Education (erstwhile MHRD). Female supernumerary seats are also created by CSAB to accommodate 20% of seats for female candidates. In addition to this, 15% over and above the intake is available under the Direct Admission of Students Abroad (DASA) Scheme, and a few seats are reserved for the candidates nominated by the Ministry of External Affairs and ICCR.

##### **M.Tech - GATE/Scholarship seats:**

On the basis of the GATE Score, admissions for the scholarship category (GATE) were made in the centralized online common Admission Process through Centralized Counseling for M.Tech. (CCMT) coordinated by NIT Kurukshetra.

##### **M.Tech. (Sponsored Seats/Research):**

Selection of candidates for admission was made based on GATE score or in some of the programs, selection was based on GATE score as well as on academic performance in the qualifying examination and written aptitude test or/ and interview, etc as decided by the DPGC of the concerned Department offering that program.

##### **M.C.A.:**

Selection of candidates for admissions was done through a common entrance test NIMCET. Admissions were made through centralized counseling (NIMCET).

##### **M.B.A:**

Selection was based on CAT/MAT /GATE score and performance in the qualifying examination. Group Discussions and interviews, etc, were used in the selection process as decided by the DPGC of the School of Humanities, Social Sciences and Management.

##### **M.Sc (Chemistry & Physics):**

Selection of candidates for admissions was made based on JAM Score. Admissions were made through centralized counseling (CCMN).

##### **Ph.D. Program:**

Selection of candidates for admission to the Ph.D. program was based upon the academic performance in the qualifying examinations, written aptitude test and interviews conducted by the respective departments.



All the students are required to stay in the Institute Hostels unless permitted to reside outside under special circumstances. Students have to strictly adhere to the rules and regulations of the institute.

## 10.2 Admissions for 2023-24

The number of candidates admitted is as follows:

### B.Tech.:

1	Admission through JEE (Main) Rank		OP	EWS	OBC	SC	ST	PwD
		941	358	92	245	137	69	20 (OP), 2(EWS) 12 (OBC), 4 (SC), 2 (ST)
2	G.O.I. Nominee- through Ministry of External Affairs (Education & Welfare)	03						
3	DASA Scheme	87						
<b>Total</b>		<b>1031</b>						

### M.Tech /M.Tech. (By Research):

#### i. M.Tech Programme:

The number of candidates admitted to First Year M.Tech. Programmes are:

			OP	EWS	OBC	SC	ST	PwD
1	With GATE qualifications for scholarship seats	560	253	43	140	88	35	1 (OP)
2	Sponsored candidates	02						
3	L&T Sponsored Candidates	28						
4	ICCR Sponsored	03						
5	Self-Financed	59						
6	BGSW Sponsored	24						
	<b>Total</b>	<b>676</b>						

#### ii. M.Tech (By Research)

			OP	EWS	OBC	SC	ST	PwD
1	GATE qualified with Scholarship	11	8	1	1	1	0	0
2	Non-Scholarship	8						
	<b>Total</b>	<b>19</b>						

### MCA

Selection of candidates for admission to MCA, was made on the basis of rank obtained in NIT MCA Common Entrance Test (NIMCET). Admissions were made through a Centralized counseling conducted by NIT Jamshedpur. A Total 67 candidates admitted were as follows:

1	OP	22
2	OBC	14
3	EWS	06
4	SC	09

5	ST	04
6	PWD (1 OP, 1 OBC)	02
7	Self-Financed	10
<b>Total</b>		<b>67</b>

**M.B.A.:**

Selection of candidates was made on the basis of CAT/MAT/GATE among candidates applied to NITK, Surathkal, Group Discussion and interview. A total of 69 candidates were admitted as follows: -

1	OP	32
2	OBC	22
3	EWS	04
4	SC	02
5	ST	02
6	Self-Financed	07
<b>Total</b>		<b>69</b>

**M.Sc (Chemistry & Physics):**

The selection was made on the basis of the score obtained in JAM 2023. Admissions were made through CCMN conducted by NIT Kurukshetra. Following are the admission details:

**i. M.Sc (Chemistry)**

1	OP	12
2	OBC	09
3	EWS	03
4	SC	04
5	ST	01
6	Self-Financed	05
<b>Total</b>		<b>34</b>

**ii. M.Sc (Physics)**

1	OP	12
2	OBC	09
3	EWS	04
4	SC	04
5	ST	00
6	PWD (OP)	01
7	Self-Financed	07
<b>Total</b>		<b>37</b>

**Ph.D. Program:****Fellowship Holders**

1	OP	25
2	OBC	06
3	EWS	04
4	SC	05
5	ST	04
6	PWD	00
<b>Total</b>		<b>44</b>

<b>Others</b>		
2	Full Time Non-Sponsored Non-Scholarship	03
3	QIP	12
4	External Registrants	32
5	Internal Registrants	07
	<b>Total</b>	<b>54</b>

A total number of 1031 candidates have been admitted to the First Year B.Tech. Programmes run according to the guidelines, and instructions issued by the Ministry of Education. The PG & Ph.D. admissions have been made according to the Rules and Regulations issued by the Senate of the Institute.

**B.Tech. Students Strength for the year 2023-24**

B.Tech I Year	SC			ST			OBC			DASA			ICCR			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil Engg	14	3	17	6	3	9	23	7	30	3	2	5	0	0	0	8	3	11	37	9	46	91	27	118
Mechanical Engg.	22	5	27	10	3	13	38	9	47	12	3	14	0	0	0	13	4	17	53	14	67	148	38	186
Electrical & Electronics Engg.	12	2	14	6	3	9	25	6	31	8	6	14	1	0	1	10	2	12	37	10	47	99	29	128
Electronics & Communication Engg.	12	4	16	7	2	9	25	6	31	11	6	17	0	0	0	10	2	12	36	10	46	101	30	131
Chemical Engg.	7	2	9	3	1	4	13	3	16	2	1	3	0	1	1	5	1	6	16	5	21	46	14	60
Metallurgical & Materials Engg.	7	2	9	3	1	4	13	2	15	0	0	0	0	0	0	5	1	6	18	4	22	46	10	56
Mining Engg.	7	2	9	3	1	4	13	3	16	0	0	0	0	0	0	3	1	4	18	4	22	44	11	55
Computer Engg.	13	4	17	7	2	9	23	7	30	10	6	16	1	0	1	9	2	11	38	9	47	101	30	131
Information Technology	9	2	11	4	1	5	15	5	20	6	2	8	0	0	0	6	2	8	24	7	31	64	19	83
Artificial Intelligence	4	2	6	2	1	3	9	2	11	3	1	4	0	0	0	3	1	4	13	3	16	34	10	44
Computational & Data Science	4	1	5	2	0	2	6	2	8	4	1	5	0	0	0	2	1	3	9	3	12	27	8	35
<b>Total</b>	111	29	140	53	18	71	203	52	255	59	28	86	2	0	3	74	20	94	299	78	377	801	226	1027

B. Tech II Year	SC			ST			OBC			DASA			ICCR			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil Engg	15	2	17	7	2	9	23	6	29	1	1	2	0	0	0	8	3	11	34	9	43	88	23	111
Mechanical Engg.	21	4	25	10	3	13	40	8	48	9	0	9	1	0	1	13	4	17	53	16	69	147	35	182
Electrical & Electronics Engg.	14	3	17	7	2	9	25	6	31	7	1	8	2	0	2	11	2	13	35	11	46	101	25	126
Electronics & Communication Engg.	13	3	16	6	3	9	25	6	31	12	5	17	2	0	2	10	2	12	37	11	48	105	30	135
Chemical Engg.	6	2	8	2	1	3	13	3	16	4	1	5	0	0	0	5	1	6	17	5	22	42	10	52
Metallurgical & Materials Engg.	4	3	7	3	1	4	10	3	13	0	0	0	0	0	0	5	1	6	17	5	22	39	13	52
Mining Engg.	6	1	7	3	2	5	8	3	11	0	0	0	0	0	0	4	1	5	14	2	16	35	9	44
Computer Engg.	12	5	17	6	3	9	25	7	32	14	2	16	0	0	0	9	2	11	37	9	46	103	28	131
Information Technology	8	3	11	4	1	5	15	5	20	6	2	8	0	0	0	6	2	8	27	5	32	66	18	84
Artificial Intelligence	5	1	6	2	1	3	9	2	11	3	1	4	0	0	0	3	1	4	13	3	16	35	9	44
Computational & Data Science	4	1	5	2	0	2	6	2	8	3	1	4	0	0	0	2	1	3	9	2	11	26	7	33
<b>Total</b>	108	28	136	52	19	71	199	51	250	59	14	73	5	0	5	76	20	96	293	78	371	787	207	994

B.Tech III Year	SC			ST			OBC			DASA			ICCR			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil Engg	12	4	16	4	5	9	25	7	32	0	0	0	0	0	0	6	2	8	35	8	43	82	26	108
Mechanical Engg.	22	5	27	9	3	12	36	9	45	9	1	10	0	0	0	13	4	17	57	12	69	146	34	180
Electrical & Electronics Engg.	13	3	16	5	2	7	25	6	31	5	2	7	1	0	1	11	2	13	35	10	45	95	25	120
Electronics & Communication Engg.	13	3	16	5	2	7	25	6	31	15	2	17	0	0	0	9	2	11	37	9	46	104	24	128
Chemical Engg.	7	3	10	2	2	4	13	3	16	2	1	3	0	0	0	5	1	6	17	5	22	46	15	61
Metallurgical & Materials Engg.	5	2	7	2	2	4	9	3	12	0	0	0	0	0	0	5	1	6	15	5	20	36	13	49
Mining Engg.	6	1	7	3	1	4	10	3	13	0	0	0	0	0	0	5	1	6	12	2	14	36	8	44
Computer Engg.	14	3	17	6	3	9	23	7	30	13	3	16	0	0	0	9	2	11	38	9	47	103	27	130
Information Technology	9	2	11	4	1	5	15	5	20	6	2	8	0	0	0	6	2	8	27	5	32	67	17	84
Artificial Intelligence	5	1	6	2	1	3	9	2	11	4	0	4	0	0	0	3	1	4	13	3	16	36	8	44
<b>Total</b>	106	61	167	42	22	64	190	51	241	54	11	65	1	0	1	72	18	90	286	68	354	751	197	948

B.Tech IV Year	SC			ST			OBC			DASA			ICCR			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil Engg	14	3	17	5	1	6	26	8	34	3	2	5	2	0	2	10	2	12	33	12	45	93	28	121
Mechanical Engg.	22	5	27	11	4	15	38	10	48	11	1	12	3	0	3	14	3	17	56	15	71	155	38	193
Electrical & Electronics Engg.	15	4	19	4	4	8	24	7	31	8	4	12	1	0	1	12	2	14	40	9	49	104	30	134
Electronics & Communication Engg.	14	3	17	6	3	9	25	7	32	15	2	17	0	0	0	10	1	11	40	10	50	110	26	136
Chemical Engg.	6	2	8	2	1	3	13	3	16	4	2	6	0	0	0	5	1	6	18	4	22	48	13	61
Metallurgical & Materials Engg.	5	2	7	3	0	3	9	2	11	0	0	0	0	0	0	4	2	6	19	6	25	40	12	52
Mining Engg.	6	2	8	4	0	4	12	2	14	0	0	0	0	0	0	3	2	5	13	2	15	38	8	46
Computer Science & Engg.	12	4	16	7	2	9	25	6	31	15	1	16	2	0	2	9	2	11	38	10	48	108	25	133
Information Technology	15	4	19	6	3	9	26	7	33	4	8	12	0	1	1	11	2	13	40	10	50	102	35	137
<b>Total</b>	<b>109</b>	<b>29</b>	<b>138</b>	<b>48</b>	<b>18</b>	<b>66</b>	<b>198</b>	<b>52</b>	<b>250</b>	<b>60</b>	<b>20</b>	<b>80</b>	<b>8</b>	<b>1</b>	<b>9</b>	<b>78</b>	<b>17</b>	<b>95</b>	<b>297</b>	<b>78</b>	<b>375</b>	<b>798</b>	<b>215</b>	<b>1013</b>

**M.Tech. Student Strength for the year 2023-24**

M.Tech (I Year)	SC			ST			OBC			EWS			ICCR			Sponsored /L&T			QIP			GENERAL			Self Finance			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Structural Engg.	3	2	5	2	0	2	6	3	9	3	0	3	0	1	1	0	0	0	0	0	0	9	4	13	3	3	6	26	13	39
Geotechnical Engg.	3	0	3	1	0	1	3	2	5	1	0	1	0	0	0	0	0	0	0	0	0	5	2	7	4	0	4	17	4	21
Environmental Engg.	1	2	3	1	1	2	1	7	8	1	0	1	0	0	0	0	0	0	0	0	0	10	4	14	0	0	0	14	14	28
Transportation Systems Engg.	3	1	4	3	0	3	4	4	8	3	0	3	0	0	0	0	0	0	0	0	0	8	4	13	2	2	4	27	10	37
Construction Technology & Mgt.	4	0	4	2	0	3	8	1	9	2	1	3	0	0	0	23	5	29	0	0	0	12	1	13	0	0	0	51	8	59
Marine Structures	3	1	4	1	0	1	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	8	6	14	1	1	2	17	9	26
Water Resources Engg. & Management	3	0	3	1	0	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	10	4	14
Geoinformatics	2	2	4	2	0	2	1	1	2		0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	1	1	12	6	18
Thermal Engg.	3	0	3	1	0	1	5	0	5	2	0	0	0	0	0	0	0	0	0	0	0	6	1	7	0	1	1	16	2	18
Mechatronics Engg.	3	1	4	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	10	4	14	2	1	3	17	6	23
Manufacturing Engg.	3	0	3	0	0	0	3	0	3	1	1	2	0	0	0	0	0	0	0	0	0		0	7	1	0	1	15	0	15
Mechanical Design	3	0	3	1	0	1	5	0	5	1	1	2	0	0	0	0	0	0	0	0	0	6	1	7	0	1	1	17	3	20
Power & Energy Systems	3	0	3	0	0	0	3	2	5	2	0	2	0	0	0	0	0	0	0	0	0	13	0	13	3	2	2	24	4	28
Power Electronics & Control for Electric	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	7	24	0	0	0	0	0	0	0		0	17	7	24
VLSI Design	4	1	5	1	1	2	6	2	8	2	1	3	0	0	0	0	0	0	0	0	0	12	2	14	4	2	6	29	9	38



Signal Processing & Machine Learning	3	0	3	1	0	1	5	0	5	3	0	3	0	0	0	0	0	0	0	0	0	8	2	10	4	2	6	24	4	28
Communication Engg. & Networks	2	3	5	0	0	0	6	2	8	3	0	3	0	0	0	0	0	0	0	0	8	5	13	4	2	7	23	12	35	
Environmental Science & Technology	0	0	0	2	0	2	1	1	2	1	0	1	0	0	0	0	0	0	0	0	3	2	5	0	0	0	7	3	10	
Chemical Engg.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3	3	
Industrial Biotechnology	2	3	5	1	0	1	4	5	9	0	1	1	0	0	0	0	0	0	0	0	4	8	12	0	2	2	11	19	30	
Process Metallurgy	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2	
Materials Engg.	1	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	4	0	4	
Nanotechnology	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	3	2	4	0	0	0	5	2	7	
Computer Science & Engg	4	1	5	2	1	3	7	1	8	3	1	4	0	1	1	0	0	0	0	0	11	1	12	3	1	4	30	7	37	
Computer Science & Engg. - Information Security	4	0	4	2	0	2	8	1	9	2	1	3	1	0	1	0	0	0	0	0	9	5	14	3	1	4	29	8	37	
Computational & Data Science	4	0	4	2	0	2	9	0	9	3	0	3	0	0	0	0	0	0	0	0	14	0	14	0	2	2	32	2	34	
INFORMATION TECHNOLOGY	4	1	5	3	0	3	6	1	7	2	1	3	0	0	0	0	0	0	0	0	10	1	11	3	0	3	28	4	32	
TOTAL	66	18	84	30	3	34	101	36	137	36	8	42	1	2	3	40	12	53	0	1	1	182	63	252	37	24	59	504	163	667

M.Tech. Student Strength for the year 2023-24																														
M.Tech (II Year)	SC			ST			OBC			QIP			DASA			EWS			Sponsored /L&T			GENERAL			Self Finance			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Structural Engg.	3	2	5	3	0	3	6	3	9	0	0	0	0	0	0	3	0	3	0	0	0	11	2	13	4	0	4	23	7	30
Geotechnical Engg.	3	0	3	1	0	1	3	2	5	0	0	0	0	0	0	1	0	1	0	0	0	5	2	7	4	0	4	17	4	21
Environmental Engg.	3	2	5	2	0	2	4	5	9	0	0	0	0	0	0	1	1	2	0	0	0	10	4	14	2	1	3	22	13	35
Transportation Engg.	3	1	4	3	0	3	4	4	8	0	0	0	0	0	0	3	0	3	0	0	0	8	5	13	2	1	3	23	11	34
Construction Technology & Mgt.	5	0	5	3	0	3	7	2	8	0	0	0	0	0	0	1	1	2	26	3	29	8	5	13	0	0	0			61
Marine Structures	3	2	5	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	0	9	3	11	0	0	0	16	8	24
Water Resources Engg. & Management	2	1	3	0	0	0	2	3	5	0	0	0	0	0	0	2	0	2	0	0	0	5	2	7	1	1	2	12	7	19
Remote Sensing & GIS	3	1	4	0	0	0	5	2	7	0	0	0	0	0	0	1	0	1	0	0	0	8	4	12	0	0	0	17	7	24
Thermal Engg.	2	0	2	0	0	0	5	0	5	0	0	0	0	0	0	1	0	1	0	0	0	6	0	6	3	2	5	17	2	19
Mechatronics Engg.	5	0	5	0	0	0	7	2	9	0	0	0	0	0	0	3	0	3	0	0	0	11	1	12	5	0	5	31	3	34
Manufacturing Engg.	1	0	1	0	0	0	4	1	5	0	1	1	0	0	0	2	0	2	0	0	0	6	0	6	6	1	7	19	3	22
Mechanical Design	3	0	3	1	0	1	4	1	5	0	0	0	0	0	0	2	0	2	0	0	0	7	0	7	5	0	5	22	1	23
Power & Energy Systems	3	1	4	2	1	3	6	2	8	0	0	0	0	0	0	2	0	2	0	0	0	10	0	10	7	1	8	30	5	35
Power Electronics & Control for Electric vehicle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	19	2	21	0	0	0	0	0	0	19	2	21
Signal Processing & Machine Learning	2	1	3	1	0	1	7	1	8	0	0	0	0	0	0	2	1	3	0	0	0	10	1	11	4	2	6	26	6	32
Communication Engg. & Network	4	1	5	0	0	0	3	6	9	0	0	0	2	1	3	3	0	3	0	0	0	10	2	12	4	4	8	23	14	37
CHEMICAL ENGG: -	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	6	1	7	2	1	3	11	3	14
Environmental Science & Technology	0	0	0	0	1	1	4	5	9	0	0	0	0	0	0	0	1	1	0	0	0	8	6	14	0	0	0	12	13	25
Industrial Biotechnology	2	3	5	0	0	0	3	3	6	0	0	0	0	0	0	3	0	3	0	0	0	5	7	12	0	3	3	13	16	29
Process Metallurgy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	3	1	4	7	1	8
Materials Engg.	2	0	2	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	9	2	11	0	0	0	17	2	29
Nanotechnology	1	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	4	4	8

Computer Science & Engg	3	2	5	2	1	3	5	2	7	0	0	0	0	0	0	4	0	4	0	0	0	10	2	12	2	2	4	26	9	35
Computer Science & Engg. - Information Security	4	1	5	1	1	2	7	2	9	0	0	0	0	0	0	2	1	3	0	0	0	11	1	12	4	1	5	29	7	36
Computational & data science.	5	0	5	1	1	1	7	0	7	0		0	0	0	0	3	0	3	0	0	0	12	0	12	2	2	4	30	3	33
INFORMATION TECHNOLOGY	3	1	4	3	0	3	6	1	7	0	0	0	0	0	0	4	0	4	0	0	0	10	2	12	1	1	2	27	5	32
TOTAL	65	20	85	23	5	27	113	51	162	0	1	1	2	0	0	44	10	48	45	5	50	202	54	255	61	24	85	599	156	720

M.Tech (Research)	SC			OBC			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Marine Structure	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Remote Sensing & GIS	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Water Resources Engg. & Management	0	0	0	0	0	0	0	0	0	2	2	4	2	2	4
Structural Engg.	0	0	0	1	1	2	0	0	0	1	4	5	2	5	7
Geotechnical Engg.	0	0	0	0	0	0	0	1	1	2	1	3	2	2	4
Environmental Engg.	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2
Construction Tech. and Management	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Transportation Engg.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Mechatronics Engg.	2	0	2	2	0	2	0	0	0	6	1	0	10	1	11
Manufacturing Engg.	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2
Mechanical Design	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
Mechatronics and Automation	0	0	0	1	0	1	0	0	0	6	1	7	7	1	8
Design and Precision Engg.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Power & Energy Systems	0	0	0		0	0	0	0	0	3	0	3	3	0	3
VLSI Design	0	0	0	1	0	1	0	0	0	2	1	3	3	1	4
Communication Engg. and Network	0	0	0	1	0	1	0	0	0	1	3	4	2	3	5
Signal Processing and Machine Learning	2	0	2	1	0	1	0	0	0	0	1	1	2	2	4
Materials Engg.	0	0	0		0	0	0	0	0	5	0	5	5	0	5
Nanotechnology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial Pollution Control	0	0	0	0	1	1	0	0	0	3	1	4	3	2	5
Chemical Engg	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Industrial Biotechnology	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1
Environmental Science & Technology	1	0	1	0	0	0	0	0	0	1	0	1	2	0	2
Computer Science & Engg	1	0	1	2	0	2	0	0	0	2	0	2	5	0	5
Computer Science & Engg. - Information Security	0	0	0	0	0	0	0	1	1	3	0	3	3	1	4
Rock Excavation Technology & Mgt	0	0	0	1	0	1	0	0	0	2	0	2	3	0	3
Information Technology	0	0	0	1	0	1	1	0	1	1	1	2	3	1	4
Computational and Data Science	0	0	0	2	0	2	1	0	1	2	0	2	5	0	5
TOTAL	6	0	6	14	4	18	2	2	4	48	21	62	69	28	97

**MCA – 2023-24**

Year	SC			ST			OBC			EWS			GENERAL			Self Finance			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
I	7	2	9	3	1	4	14	3	17	3	3	6	19	4	23	4	4	8	50	17	67
II	7	2	9	3	1	4	15	1	16	6	0	6	18	5	23	8	2	10	57	11	68
III	7	2	9	3	1	4	12	3	14	6	0	6	18	4	22	6	0	6	52	10	62
Total	21	6	27	9	3	12	41	7	47	15	5	18	55	13	68	18	6	24	159	38	197

**M.B.A- 2023-24**

Year	SC			ST			OBC			EWS			GENERAL			Self Finance			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
I	1	1	2	1	1	2	10	12	22	3	1	4	15	17	32	3	4	7	33	36	69
II	0	0	0	0	0	0	10	5	15	0	0	0	16	15	31	3	5	8	29	25	54
Total	1	1	2	1	1	2	12	9	21	3	1	4	31	32	63	3	5	8	54	47	123

**M.Sc (Chemistry) Student Strength for the year 2023-24**

Year	SC			ST			OBC			EWS			GENERAL			Self Finance			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
I	2	2	4	0	1	1	5	4	9	1	2	3	7	5	12	0	5	5	15	19	34
II	3	1	3	2	1	3	8	1	9	4	0	4	8	5	13	0	2	2	23	11	34
Total	5	3	9	3	2	5	13	6	17	3	3	7	15	11	16	1	6	8	38	30	68

**M.Sc (Physics) Student Strength for the year 2023-24**

Year	SC			ST			OBC			EWS			GENERAL			Self Finance			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
I	2	2	4	0	0	0	5	4	9	4	0	4	8	4	12	6	1	7	25	11	36
II	4	1	5	0	1	1	5	1	6	1	1	2	8	2	10	3	3	6	21	9	30
Total	8	3	9	0	1	1	14	3	15	5	1	6	17	4	22	0	7	11	46	20	66

**Part-Time (Ph.D. Student Strength for the year 2023-24)****Ph.D. Student Strength for the year 2023-24**

Branch	SC			ST			OBC			EWS			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil	0	0	0	0	0	0	3	3	6	0	0	0	14	07	21	16	10	26
Water Resources and Ocean Engg.	1	0	1	0	0	0	0	1	1	0	0	0	13	6	19	14	7	21
Mechanical	3	0	3	4	1	5	8	0	8	0	0	0	35	3	38	50	4	54
E&E	0	1	1	0	0	0	5	2	7	0	0	0	11	08	19	16	11	27
E&C	2	0	2	0	1	1	3	1	4	0	0	0	12	6	18	17	8	25
Chemical	0	2	2	0	0	0	0	2	2	0	0	0	0	2	2	0	4	4
Metallurgy	0	0	0	0	0	0	3	0	3	0	0	0	7	2	9	10	2	12
Mining	1	0	1	0	0	0	4	0	4	0	0	0	4	1	5	9	1	10
Computer	0	2	2	0	0	0	3	2	6	0	0	0	5	6	11	8	10	18
Information Technology	1	0	1	0	0	0	0	2	2	0	0	0	1	7	8	2	9	11
Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemistry	2	0	2	0	0	0	3	1	4	0	0	0	4	2	6	9	3	12
MACS	0	0	0	0	0	0	2	0	2	2	0	2	0	3	3	2	3	5
School of Humanities and Social Sciences and Management	0	0	0	0	0	0	0	0	0	0	0	0	10	5	15	10	5	15
<b>Total</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>34</b>	<b>14</b>	<b>49</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>116</b>	<b>58</b>	<b>174</b>	<b>163</b>	<b>77</b>	<b>240</b>

Ph.D. Student Strength for the year 2023-24																														
Branch	SC			ST			OBC			EWS			QIP			Ethiopian			VTU Scheme			Sponsored			GENERAL			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Civil	10	4	14	2	1	3	10	5	15	1	0	1	5	5	10	1	0	1	0	0	0	0	0	0	22	13	35	54	28	79
App. Mechanics	3	0	3	4	1	5	6	1	7	2	1	3	1	1	2	3	0	3	0	0	0	0	0	0	12	14	26	31	18	49
Mechanical	19	0	19	3	0	3	21	0	21	1	0	1	9	0	9	0	0	0	0	0	0	0	0	48	3	51	101	3	104	
E&E	5	1	6	4	0	4	14	2	16	3	1	4	7	0	7	0	0	0	0	0	0	0	0	16	3	19	49	7	56	
E&C	2	1	3	2	1	3	4	2	6	1	0	1	5	4	9	0	0	0	0	0	0	0	0	21	14	35	49	18	54	
Chemical	1	2	3	0	1	1	4	4	8	0	0	0	1	0	1	0	0	0	0	0	0	0	0	7	7	14	13	13	26	
Metallurgy	3	0	3	0	0	0	5	1	6	2	0	2	0	0	0	0	0	0	0	0	0	0	0	16	1	17	26	2	28	
Mining	1	0	1	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	9	1	10	
Computer	0	3	3	0	2	2	5	1	6	0	0	0	8	2	10	0	0	0	0	0	0	0	0	9	9	18	22	17	39	
Information Technology	3	0	3	1	0	1	2	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	8	13	12	9	21	
Physics	4	1	5	2	1	3	1	1	2	1	0	1	0	0	0	1	0	1	0	0	0	0	0	9	10	19	18	13	31	
Chemistry	3	1	4	1	0	1	7	7	14	1	2	3	0	0	0	0	0	0	0	0	0	0	0	12	15	27	24	25	49	
MACS	0	1	1	3	0	3	6	4	10	2	1	3	0	0	0	0	0	0	0	0	0	0	0	17	10	27	28	16	44	
School of Humanities and Social Scienes and Management	2	1	3	0	0	0	9	3	12	0	2	2	0	0	0	0	0	0	0	0	0	0	0	9	14	23	20	21	41	
Total	56	15	71	22	7	29	98	32	124	15	7	22	36	12	48	5	0	5	0	0	0	0	0	207	122	329	456	191	647	

**Undergraduate Programs – B. Tech.**  
**Particulars of sanctioned intake and admissions made during 2023-24**

Sl. No.	Courses offered	Sanctioned intake				Admissions made to Undergraduate Programmes									
		Normal Intake	ICCR + MEA	DASA	Total	Normal Intake							ICCR	DASA	Total Admission
						OC	EWS	OBC	SC	ST	PWD	Total			
1	Civil Engineering	115	3	16	134	44	10	30	17	9	2 OPEN, 1 EWS, 1 OBC	114	0	5	119
2	Mechanical Engineering	174	3	24	201	63	17	45	26	13	4 OPEN, 2 OBC, 1 SC	171	0	15	186
3	Electrical & Electronics Engineering	116	4	14	134	45	12	29	15	8	2 OPEN, 2 OBC, 1 ST	114	1	14	129
4	Electronics & Communication Engineering	116	3	17	136	44	11	30	15	9	2 OPEN, 1 EWS, 1 OBC, 1 SC	114	0	17	131
5	Chemical Engineering	58	2	9	69	20	6	15	9	4	2 OPEN, 1 OBC,	57	1	3	61
6	Metallurgical & Materials Engineering	58	0	2	60	20	6	15	9	4	2 OPEN, 1 OBC,	57	0	0	57
7	Mining Engineering	58	0	1	59	22	4	16	9	4	--	55	0	0	55
8	Computer Science & Engineering	115	2	16	133	45	11	28	16	9	2 OPEN, 2 OBC, 1 SC	114	1	16	131
9	Information Technology	76	0	8	84	29	8	19	10	4	2 OPEN, 1 OBC, 1 SC, 1 ST	75	0	8	83
10	Artificial Intelligence	40	0	4	44	15	4	10	6	3	1 OPEN, 1 OBC	40	0	4	44
11	Computational and Data Science	30	0	5	35	11	3	8	5	2	10 OPEN	30	0	5	35
<b>Total</b>		<b>956</b>	<b>17</b>	<b>116</b>	<b>1089</b>	<b>358</b>	<b>92</b>	<b>245</b>	<b>137</b>	<b>69</b>	<b>20 OPEN, 2 EWS, 12 OBC, 4 SC, 2 ST</b>	<b>941</b>	<b>3</b>	<b>87</b>	<b>1031</b>



**ADMISSION STATISTICS – B. TECH 2023-24**  
**Details of Male & Female admissions – course-wise and category-wise**

Sl.No.	Program	OC		EWS		OBC		SC		ST		ICCR		DASA		Total Admission		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
1	Civil Engg	36 + 1 PH	8 +1PH	8	2+1PH	23+1PH	7	14	3	6	3	0	0	3	2	92	27	119
2	Mechanical Engg	50 + 3PH	13+1PH	13	4	36+2PH	9	21+1PH	5	10	3	0	0	12	3	148	38	186
3	Electrical & Electronics Engg	36+1PH	9+1PH	10	2	23+2PH	6	12	3	6	2+1PH	1	0	8	6	99	30	129
4	Electronics & Communications	36	8+2PH	9+1PH	2	24+1PH	6	11+1PH	4	7	2	0	0	11	6	101	30	131
5	Chemical Engg	16+1PH	4+1PH	5	1	12+1PH	3	7	2	3	1	0	1	2	1	47	14	61
6	Metallurgical & Materials Engg	16+2PH	4	5	1	12+1PH	3	7	2	3	1	0	0	0	0	46	11	57
7	Mining Engg	18	4	3	1	13	3	7	2	3	1	0	0	0	0	44	11	55
8	Computer Science & Engg	37+1PH	8+1PH	9	2	22+1PH	6+1PH	12+1PH	4	7	2	1	0	10	6	101	30	131
9	Information Technology	22+2PH	7	6	2	15	4+1PH	8+1PH	2	3+1PH	1	0	0	6	2	64	19	83
10	Artificial Intelligence	12+1PH	3	3	1	8+1PH	2	4	2	2	1	0	0	3	1	34	10	44
11	Computational and Data Science	9	2+1PH	2	1	6	2	4	1	2	0	0	0	4	1	27	8	35
	<b>Total</b>	<b>288+12PH</b>	<b>70+8PH</b>	<b>73+1PH</b>	<b>19+1PH</b>	<b>194+10PH</b>	<b>51+2PH</b>	<b>107+4PH</b>	<b>30</b>	<b>52+1PH</b>	<b>17+1PH</b>	<b>2</b>	<b>1</b>	<b>59</b>	<b>28</b>	<b>803</b>	<b>228</b>	<b>1031</b>

**M. Tech. Program - Particulars of Intake during 2023-24**

Sl. No.	Name of the Programmes	Normal Intake (through GATE)	Sponsored /L&T	DASA	ICCR	Self Financed Scheme	Total
1	Structural Engg.	33	1	0	1	5	40
2	Geotechnical Engg.	18	1	1	1	5	26
3	Environmental Engg.	33	1	0	1	5	40
4	Transportation Engg.	33	1	0	1	5	40
5	Construction Technology & Management	33	1 + 30 L&T	0	1	0	65
6	Marine Structures	33	1	1	1	5	41
7	Water Resources Engineering & Mgt.	18	1	0	1	5	25
8	Geoinformatics	33	1	1	1	5	41
9	Mechanical Design	18	1	0	1	10	30
10	Manufacturing Engg.	18	1	0	1	10	30
11	Mechatronics Engg.	33	1	0	1	5	40
12	Thermal Engineering	18	1	1	1	10	31
13	Power & Energy Systems	33	1	0	1	10	45
14	VLSI Design	33	1	1	1	8	44
15	Communication Engineering and Networks	33	1	1	1	8	44
16	Signal Processing and machine learning	29	1	1	1	8	40
17	Chemical Engineering	18	1	0	1	5	25
18	Environmental Science and Technology	33	1	0	1	5	40
19	Industrial Biotechnology	33	1	0	1	5	40
20	Materials Engg.	33	1	0	1	5	40
21	Materials Process Technology	18	1	1	1	5	26
22	Nanotechnology	18	1	0	1	5	25
23	Computer Science & Engg.	33	1	1	1	5	41
24	Computer Science & Engg. – Information Security	33	1	0	1	5	40
25	Information Technology	33	1	0	1	5	40
26	Computational and Data Science	33	1	0	1	5	40
	<b>Total</b>	<b>734 (CCMT)</b>	<b>26 + 30 L&amp;T</b>	<b>9</b>	<b>26</b>	<b>154</b>	<b>979</b>

**M. Tech. Program - Particulars of Admissions during 2023-24**

Sl. No.	Name of the Programs	Admitted			Total admissions: category-wise																			
		GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC			PWD		
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Structural Engg.	33	5 SF 1 FT- SPON- NSCH 1 ICCR	27	13	40	3	2	5	3	0	3	6	3	9	3	0	3	9+ 2 SF+ 1 FT-SPON-NSCH	4+ 3 SF+ 1 ICCR	20	-	-	-
2	Geotechnical Engg.	18	2 SF	16	4	20	3	0	3	0	1	1	5	0	5	2	0	2	4+2 SF	3	9	-	-	-
3	Environmental Engg.	29	-	15	14	29	1	2	3	1	1	2	2	7	9	1	0	1	10	4	14	-	-	-
4	Transportation Engg.	33	4 SF	27	10	37	2	3	5	3	0	3	8	1	9	3	0	3	9+2SF	4+2SF	17	-	-	-
5	Construction Technology & Management	32	28 L&T	52	8	60	4	0	4	3	0	3	8	1	9	2	1	3	12+23 L&T SPON	1+ 5L&T SPON	41	-	-	-
6	Marine Structures	24	2 SF	17	9	26	3	1	4	1	0	1	4	1	5	0	0	0	8+1SF	6+1SF	16	-	-	-
7	Water Resources Engineering & Management	14	-	10	4	14	3	0	3	1	0	1	2	1	3	0	0	0	4	3	7	-	-	-
8	Geoinformatics	18	1 SF	13	6	19	3	2	5	2	0	2	1	1	2	0	0	0	7	2+1 SF	10	-	-	-
9	Mechanical Design	18	1 SF	16	3	19	3	0	3	1	0	1	5	0	5	1	1	2	6	1+ 1SF	8	-	-	-
10	Manufacturing Engg.	14	1 SF	15	0	15	3	0	3	0	0	0	3	0	3	1	0	1	7+1SF	0	8	-	-	-
11	Mechatronics Engg.	20	2 SF 1 FT- SPON- NSCH	17	6	23	3	1	4	0	0	0	1	1	2	0	0	0	10 + 1SF+ 1SPON-NSCH	4+1SF	17	-	-	-
12	Thermal Engineering	17	1 SF	16	2	18	3	0	3	1	0	1	5	0	5	1	0	1	6	1+1SF	8	-	-	-

Sl. No.	Name of the Programs	Admitted					Total admissions: category-wise																				
		GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC						PWD		
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total			
13	Power Electronics and Control for Electric Vehicle	-	24 BGSW Sponsored	17	7	24	-	-	-	-	-	-	-	-	-	-	-	-	17 BGSW Sponsored	7 BGSW Sponsored	24	-	-	-			
14	Power & Energy Systems	23	5 SF	24	4	28	3	0	3	0	0	0	3	2	5	1	1	2	13+ 3 SF	2 SF	18	-	-	-			
15	VLSI Design	33	7 SF	30	10	40	4	1	5	1	1	2	7	2	9	2	1	3	11+ 4SF	2+ 3SF	20	1 (OC)	-	1			
16	Communication Engineering and Networks	29	6 SF	23	12	35	2	3	5	0	0	0	6	2	8	3	0	3	8+4 SF	5+2SF	19	-	-	-			
17	Signal Processing and machine learning	23	6 SF	24	5	29	3	0	3	1	0	1	5	1	6	3	0	3	8+4SF	2+2SF	16	-	-	-			
18	Chemical Engineering	3	-	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	-	-	-			
19	Environmental Science and Technology	10	-	7	3	10	0	0	0	2	0	2	1	1	2	1	0	1	3	2	5	-	-	-			
20	Industrial Biotechnology	28	2 SF	11	19	30	2	3	5	1	0	1	4	5	9	0	1	1	4	8+2SF	14	-	-	-			
21	Materials Engg.	4	-	4	0	4	1	0	1	1	0	1	1	0	1	0	0	0	1	0	1	-	-	-			
22	Materials Process Technology	2	-	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	-	-	-			
23	Nanotechnology	7	-	5	2	7	1	0	1	0	0	0	0	0	0	1	0	1	3	2	5	-	-	-			

Sl. No.	Name of the Programs	Admitted			Total admissions: category-wise																			
		GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC			PWD		
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
24	Computer Science &Engg.	32	4 SF 1 ICCR	30	7	37	4	1	5	2	1	3	7	1	8	3	1	4	11+3SF	1+1SF+1ICCR	17	-	-	-
25	Computer Science &Engg. – Information Security	33	5 SF 1 ICCR	31	8	39	5	0	5	2	0	2	8	1	9	2	1	3	9+4SF+1ICCR	5+1SF	20	-	-	-
26	Information Technology	30	3 SF	28	5	33	4	1	5	3	0	3	6	1	7	2	1	3	10+3SF	2	15	-	-	-
27	Computational and Data Science	33	2 SF	33	2	35	5	0	5	2	0	2	9	0	9	3	0	3	14	0+2SF	16	-	-	-
	<b>Total</b>	<b>560</b>	<b>59 SF 28 L&amp;T 3 ICCR 24 BGSW Sponsored 2 FT- SPON- NSCH</b>	<b>510</b>	<b>166</b>	<b>676</b>	<b>68</b>	<b>20</b>	<b>88</b>	<b>31</b>	<b>4</b>	<b>35</b>	<b>108</b>	<b>32</b>	<b>140</b>	<b>35</b>	<b>8</b>	<b>43</b>	<b>188 34 SF 23 L&amp;T 17 BGSW Sponsored 1 ICCR 2 FT-SPON-NSCH</b>	<b>65 25 SF 5 L&amp;T 7 BGSW Sponsored 2 ICCR</b>	<b>253 59 SF 28 L&amp;T 24 BGSW Sponsored 3 ICCR 2FT-SPOT-NSCH</b>	<b>1</b>	<b>0</b>	<b>1</b>

SF – Self Financed

**M.TECH. (RESEARCH) PROGRAM 2023-24**

OC	OC PwD	EWS	EWS PwD	OBC	OBC PwD	SC	SC PwD	ST	ST PwD	Total
25	1	6	0	16	1	9	0	5	0	63

Sl. No.	Name of the Program	No. of candidates admitted		Total number of candidates admitted		
		Gate Scholarship Seat	Non-Scholarship Seat	Male	Female	Total Admission
DEPARTMENT OF CIVIL ENGINEERING						
1	Geotechnical Engineering	1 OC	-	1	0	1
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING						
1	Signal Processing and machine learning	1 OC	-	0	1	1
DEPARTMENT OF MECHANICAL ENGINEERING						
1	Mechanical Design	1 OC	-	1	0	1
2	Mechatronics Engineering	-	1 IR (OC)	1	0	1
DEPARTMENT OF MINING ENGINEERING						
1	Rock Excavation Technology and Management	-	4 ER(OC) 1 IR (SC)	5	0	5
DEPARTMENT OF WATER RESOURCES AND OCEAN ENGG.						
1	Water Resources Engineering & Mgt.	-	1 IR (OC)	1	0	1
2	Geoinformatics	-	1 IR (OBC)	1	0	1
DEPARTMENT OF INFORMATION TECHNOLOGY						
1	Information Technology	1 OC	-	1	0	1
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING						
1	Power and Energy Systems	1 OC	-	1	0	1
COMPUTER SCIENCE & ENGINEERING						
1	Computer Science and Engineering	1 OC, 1 EWS, 1 SC	-	3	0	3
2	Computer Science and Engineering - Information Security	1 OC, 1 OBC	-	1	1	2
DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES						
1	Computational and Data Science	1 OC	-	0	1	1
	Total	8 OC 1 EWS 1 OBC 1 SC Total - 11	2 IR (OC) 1 IR (OBC) 1 IR (SC) 4 ER (OC) Total - 8	16	3	19

**M.C.A., M.B.A. AND M.Sc. PROGRAMS**  
**Particulars of Admissions during 2023-24**

Sl. No.	Programme	Intake	Total Admission			SC		ST		OBC		OC		EWS		PwD		Self - Financed	
			Male	Female	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	Master of Computer Applications (MCA)	58+ 1**+10**	50	17	67	7	2	3	1	11	3	18	4	3	3	1 (OC) 1(OBC)	0	6	4
2	Master of Business Administration (MBA)	80+5*+1**+10**	33	36	69	1	1	1	1	10	13	15	16	3	1	0	0	3	4
3	M.Sc. (Chemistry)	33+ 1**+5**	15	19	34	2	2	0	1	5	4	7	5	1	2	0	0	0	5
4	M.Sc. (Physics)	33+ 1**+7**	26	11	37	2	2	0	0	6	3	8	4	3	1	1 (OC)	0	6	1
	<b>Total</b>	<b>204+ 5*+ 4** +32***= 245</b>	<b>124</b>	<b>83</b>	<b>207</b>	<b>12</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>32</b>	<b>23</b>	<b>48</b>	<b>29</b>	<b>10</b>	<b>7</b>	<b>2 (OC) 1 (OBC)</b>	<b>0</b>	<b>15</b>	<b>14</b>

\* Seats reserved for DASA candidates

\*\* Additional seats for the international students under ICCR Scheme

\*\*\* Self-Financed Scheme

PwD – Persons with Disabilities

**Ph.D. PROGRAM**  
**Particulars of Intake & Admissions made during 2023-24**  
**Intake for the year 2023-24**

OC	OC PWD	EWS	EWS PWD	OBC	OBC PWD	SC	SC PWD	ST	ST PWD	Total
72	4	18	1	48	2	27	1	14	1	188

**Details of Admissions made during 2023-24**

SI No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Total Full time scholars, category-wise									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	Civil Engg.	5	3	1 QIP (R) (OC)	2 QIP (R) (OC) 1 QIP (R) (SC)	2 ER (OC) 1 ER (OBC) 1 IR (OBC)	-	3	3	0	0	0	0	2	0	0	0
2	Water Resources and Ocean Engg.	0	1	-	1 FT-NSPON - NSCH (OC)	3 ER (OC)	2 ER (OC) 1 ER (OBC)	0	1	0	0	0	0	0	0	0	0
3	Mechanical Engg.	3	0	1 QIP (R) (OC)	-	5 ER (OC) 1ER (SC)	1 ER (OC)	2	0	0	0	1	0	0	0	0	0



Sl No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Total Full time scholars, category-wise									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
						1ER (ST)											
						1 IR (OC)											
4	Electrical & Electronics Engg.	3	0	1 QIP ( R)	1FT-NSPON - NSCH (OC)	1ER (OBC)	1 ER (OC)	1	0	0	0	0	0	1	0	1	0
						1ER (SC)											
5	Electronics & Communication Engg	0	0	1 QIP (R) (OC)	1 QIP (R) (OC)	-	2 ER (OC)	0	0	0	0	0	0	0	0	0	0
							1 IR (ST)										
6	Chemical Engg	0	3	-	-	-	-	0	1	0	1	0	0	0	1	0	0
7	Metallurgical & Materials Engg	1	0	-	-	-	-	0	0	0	0	0	0	0	0	1	0
8	Mining Engg	0	0	-	-	5 ER (OC)	1 ER (OC) 1ER (OBC)	0	0	0	0	0	0	0	0	0	0

Sl No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Total Full time scholars, category-wise									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
9	Computer Science & Engg	0	0	1 QIP (R) (OC) 1 QIP (R) (OBC) 1 QIP (R) (SC)	1 QIP (R) (OBC)	-	1 IR (OC)	0	0	0	0	0	0	0	0	0	0
10	Information Technology	0	0	-	-	1 ER (OC) 1 IR (SC)	-	0	0	0	0	0	0	0	0	0	0
11	Physics	2	0	-	-	-	-	2	0	0	0	0	0	0	0	0	0
12	Chemistry	3	3	-	1 NSPON-NSCH (EWS)	1 IR (OBC) 1 IR (SC)	-	1	2	1	1	1	0	0	0	0	0
13	Mathematical and Computational Sciences	6	3	-	-	-	-	3	3	0	0	2	0	0	0	1	0

SI No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Total Full time scholars, category-wise									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
14	School of Humanities, Social Sciences and Management	4	4	-	-	1 ER (OC)	1 ER (OC)	2	1	0	1	1	1	0	1	1	0
		27	17	7 QIP	5 QIP 3 NSPON-NSCH	5 IR 22 ER	2 IR 10 ER	14	11	1	3	5	1	3	2	4	0

Spon= Sponsored. QIP = Admitted Under AICTE QIP Scheme, PwD – Persons with Disabilities

**Total Student Strength**

<u>Program</u>	<u>Strength</u>
1. Undergraduate	3982
2. Post Graduate (Including MCA /M.Tech./M.Tech (Research)/MBA/M.Sc.)	1938
3. Ph.D. Programme	<u>891</u>
<b>Total</b>	<b><u>6811</u></b>

**10.3 SC/ST Students**

All SC/ST, PWD candidates are eligible for exemption of Tuition Fees as per the order of M.H.R.D., GOI, New Delhi.

**10.3.1 SC/ST Cell**

The SC/ST Cell was established in the year 2006 by an act of parliament, Govt. of India. The primary responsibilities of the SC-ST cell are: Monitoring the implementation of the reservation roster, addressing grievances of SC/ST students and employees, coordinating scholarship schemes of the SC/ST students, and organizing special coaching classes for the First year B. Tech. SC/ST students, and conducting training programs for SC/ST students and employees. In addition to the primary responsibilities, the SC/ST cell has initiated new programs for uplifting the academic standards and communication skills of the SC/ST students so that their chances of getting placed are increased.

**Important activities undertaken by the SC/ST cell for the financial year 2023-24 are given below.**

**Coordination of Central Sector Scholarship Schemes:**

**SC Students:** In 2023-24, Ministry of Social Justice and Empowerment, Govt. of India under the Central Sector Scholarship of Top-Class Education Scheme (TCES) for B.Tech. SC students have been awarded TCES. Based on JEE (Main), the top 50 students from the third year and the top 10 students from the first, second and fourth year whose family income is below 8 lakhs were awarded TCES.

**ST Students:** In 2023-24, the Ministry of Tribal Affairs, Govt. of India under the National Fellowship and Scholarship for Higher Education of ST Students-Scholarship scheme for B.Tech offered scholarships. ST students whose family income is below 6 lakhs have been awarded NFSHES. A total of 133 ST students from the first, second, third and fourth year B.Tech., have received the NFSHE scholarship.

**Financial Assistance:**

To support the financial needs of SC/ST students for pursuing quality education in Engineering, a scheme called **Financial Assistance to SC/ST students** has been offered. All the SC/ST students (UG/PG) who do not receive any other scholarships and whose family income is below Rs. 4.5 Lakhs per annum are eligible under this scheme. Under this scheme, the following items are offered on a reimbursement basis.

- a) Book allowance: Rs.6000/- per year (Except M. Tech. and PhD students)
- b) Waiver of Hostel Fee (Except M. Tech. and PhD students)
  - Purchase of Laptop up to Rs.45000/- per student as one-time assistance.
  - Academic Performance Incentives (Rs.12,000-00 if CGPA is more than 6.5 and Rs.18,000-00 if CGPA is more than 8.0 in the previous year) (Except M. Tech. and PhD students)

**Student Welfare Programs being coordinated:**

**(i) Conversation Partner Program:**

This program has been initiated to create opportunities to practice, build confidence, and improve the conversational English skills of SC/ST Students by partnering them with volunteering senior students who are proficient in English. In addition to improving English skills, this program allows the partnering student to serve as a 'Buddy' for the new student. The students will continue as conversation partners in this program until the senior student graduates.

**(ii) Faculty Mentoring Programme:**

In this program, one or two SC/ST students will be assigned to each volunteering Faculty member, who will work as a mentor for guiding and monitoring the academic progress of the SC/ST students. This arrangement is anticipated to give confidence and hope to a new student who may have difficulty understanding and following the NITK academic setup on his/her own, and it will boost their confidence as their professors mentor them in the absence of their parents on campus. In this program, the faculty mentor will continue to serve as Mentor for the assigned students until these students graduate.

**Special Coaching Classes for 1<sup>st</sup> year B. Tech SC/ST Students.**

## 10.4 Scholarships and Fellowships

As per the guidelines of Govt. of India (MHRD) Merit and Merit cum Means Scholarship have been awarded to I B.Tech. students every year who have got 60% above marks in the +2 exam and the same will be continued based on their performance in II, III & IV B. Tech Examinations. In addition, based on performances during the semester examination scholarships have been awarded to the students of II, III and IV year B.Tech. Several other scholarships awarded by Central and State Govts., Endowments, Institution of Engineers, etc., are enjoyed by the students. SC/ST students are paid post-matric scholarships and facilities of Fee Concessions.

The postgraduate students who have qualified with GATE are paid a sum of Rs.12,400/- as a monthly PG stipend. M.Tech. (Q.I.P.) Regular and (Q.I.P.) Poly are paid Rs.4,000/- per month. Full-Time Ph.D. Research Scholars are paid the institute scholarship @ Rs.25,000/-p.m for I and II years and Rs. 28,000/- per month for the III, IV and V years. Ph.D. QIP(R) students are paid a Fellowship of Rs.9,000/- per month and a contingent grant of Rs.10,000/- per year.

### 10.4.1 OBC Cell

**Coordination of PM YASASVI Central Sector Scholarship Schemes:**

**OBC Students:** In 2023-24, the Ministry of Social Justice and Empowerment, Govt. of India under the PM YASASVI Central Sector Scheme of Top-Class Education in College for OBC, EBC AND DNT offered scholarships for B.Tech. Students. This is based on JEE (Main), ranking and family income. 120 applications are processed from OBC Cell, NITK, Surathkal, for the PM YASASVI scholarship in the academic year 2023-24.

## 10.5 Evaluation and Examination

### 10.5.1 Education System

The normal duration of programs leading to a B.Tech degree in Engineering is eight semesters. For full-time M.Tech. Programmes, the duration of study is a minimum of four semesters and a maximum of four years. For the Master of Science program, the duration of study shall be a minimum of four semesters and a maximum of four years. For Master of Computer Application (MCA) the duration of study shall be a minimum of six semesters and a maximum of six years. For Master of Business Administration (MBA), the duration of study is a minimum of four semesters and a maximum of four years. For Doctoral Programmes (Ph.D.) the duration of study is a minimum of two years and a maximum of seven years for all categories of research scholars.

Each academic year is divided into two semesters. A semester that is typically from August to mid-December is called the ODD SEMESTER, and the one that is from January to mid-May is called EVEN SEMESTER.

The medium of instruction, examination and project work is English only.

### 10.5.2 Examination & Evaluation Procedure

The examination and evaluation work of all the B.Tech./M.Tech./MCA/MSc/MBA students and Ph.D./M.Tech by research candidates were carried out by the respective Faculty Members in their concerned Departments itself as per the regulations approved by the Senate of the Institute. The grades obtained by each student with details of attendance in each course are submitted to the Examination/Evaluation Section for processing their Grade Cards as per the regulations of the Institute. The results are declared and published on the website of the Institute in time and Grade Cards were issued to all eligible students.

## 10.6 Examination Results for 2023

### 10.6.1 Undergraduate

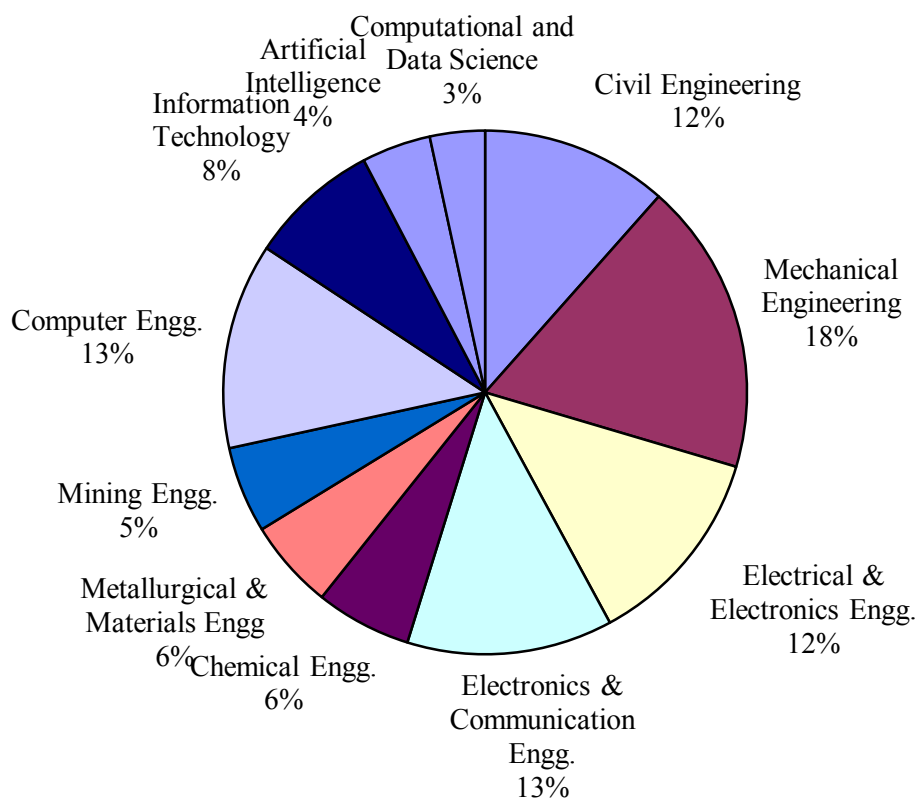
Undergraduate									
Sl.No	Branch	Total No. Appeared	No. of students passed in				Total Pass	Percentage of passes	No. of SC/ST candidates passed
			CGPA above 7 & below 10	CGPA above 6 & below 7	CGPA above 5 & below 6	CGPA below 5			
1	Civil Engineering	102+1*	77	16	4+1*	0	98	95%	22+1*
2	Mechanical Engineering	194+1*	164	23	3+1*	0	191	98%	38+1*
3	Electrical And Electronics Engineering	120	103	15	1	0	119	99%	24
4	Electronics And Communication Engineering	118	102	13	2	0	117	99%	22
5	Chemical Engineering	62+1*	46	14	1	1*	62	98%	10
6	Metallurgical And Materials Engineering	45	34	7	4	0	45	100%	11
7	Mining Engineering	46	43	2	0	0	45	98%	10
8	Computer Science and Engineering	125+1*	101	14	5	1+1*	122	97%	22+1*
9	Information Technology	117+1*	93	17	4	1*	115	97%	20+1*
		929+5*					914	98%	
	*- Repeaters								

## 10.6.2 Postgraduate

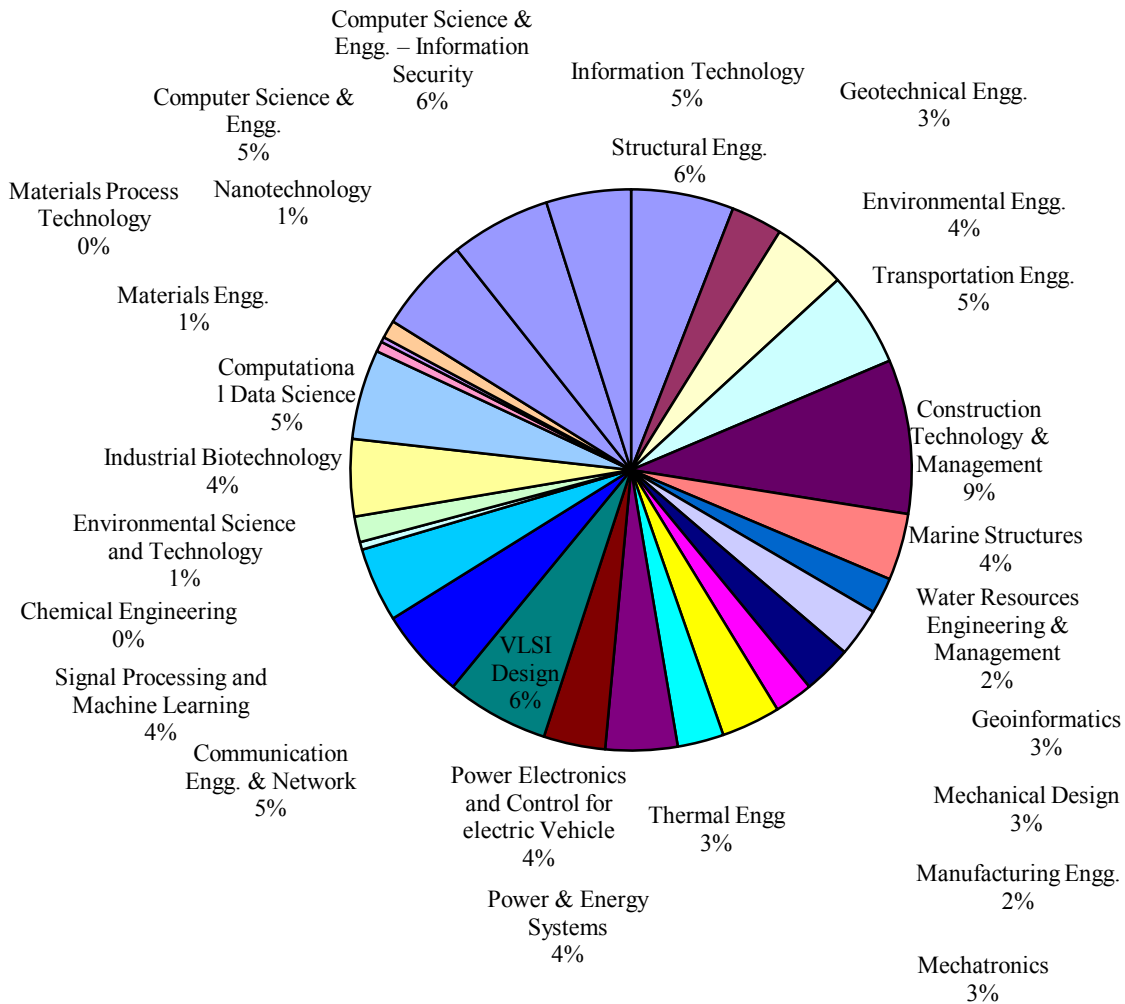
Sl. No.	Branch	Total No. Appeared	No. of students passed in			Total Pass	Percentage of passes	No. of SC/ST candidates passed
			CGPA above 7 & below 10	CGPA above 6 & below 7	CGPA above 5.50 & below 6			
1	Construction Technology & Management	60	59	0	0	59	98%	8
2	Structural Engineering	34	34	0	0	34	100%	6
3	Geotechnical Engineering	22	22		0	22	100%	4
4	Environmental Engineering	38	35	1	0	36	95%	6
5	Transportation Engineering	29	28	1	0	29	100%	8
6	Marine Structures	29	28	1	0	29	100%	3
7	Geoinformatics	29	27	1	0	28	97%	5
8	Remote Sensing and GIS	1*	1*	0	0	1	100%	0
9	Water Resources Engineering & Management	17	16	0	0	16	94%	1
10	Mechanical Design	24	24	0	0	24	100%	4
11	Manufacturing Engineering	27	27	0	0	27	100%	3
12	Mechatronics Engineering	30	29	0	0	29	97%	4
13	Thermal Engineering	23	23	0	0	23	100%	3
14	Power & Energy Systems	38	38	0	0	38	100%	7
15	VLSI Design	34	32	1	0	33	97%	5
16	Communication Engineering and Networks	33	30	2	0	32	97%	5
17	Signal Processing and Machine Learning	33	30	3	0	33	100%	4
18	Chemical Engineering	13	12	0	0	12	92%	0
19	Industrial Biotechnology	28	25	3	0	28	100%	4
20	Environmental Science and Technology	32	28	2	0	30	94%	5
21	Process Metallurgy	4	3	0	0	3	75%	0
22	Materials Engineering	24	23	1	0	24	100%	4
23	Nanotechnology	16	15	0	0	15	94%	2
24	Computational Data Science	35	34	1	0	35	100%	6
25	Computer Science and Engineering	37+1*	35	2	1*	37	97%	8+1*
26	Computer Science and Engineering - Information Security	37	37	0	0	37	100%	6
27	Information Technology	34	30	3	0	33	97%	7
28	Master of Computer Applications	56+1*	53+1*	3	0	57	100%	11
29	Master of Business Administration	43	34	9	0	43	100%	1



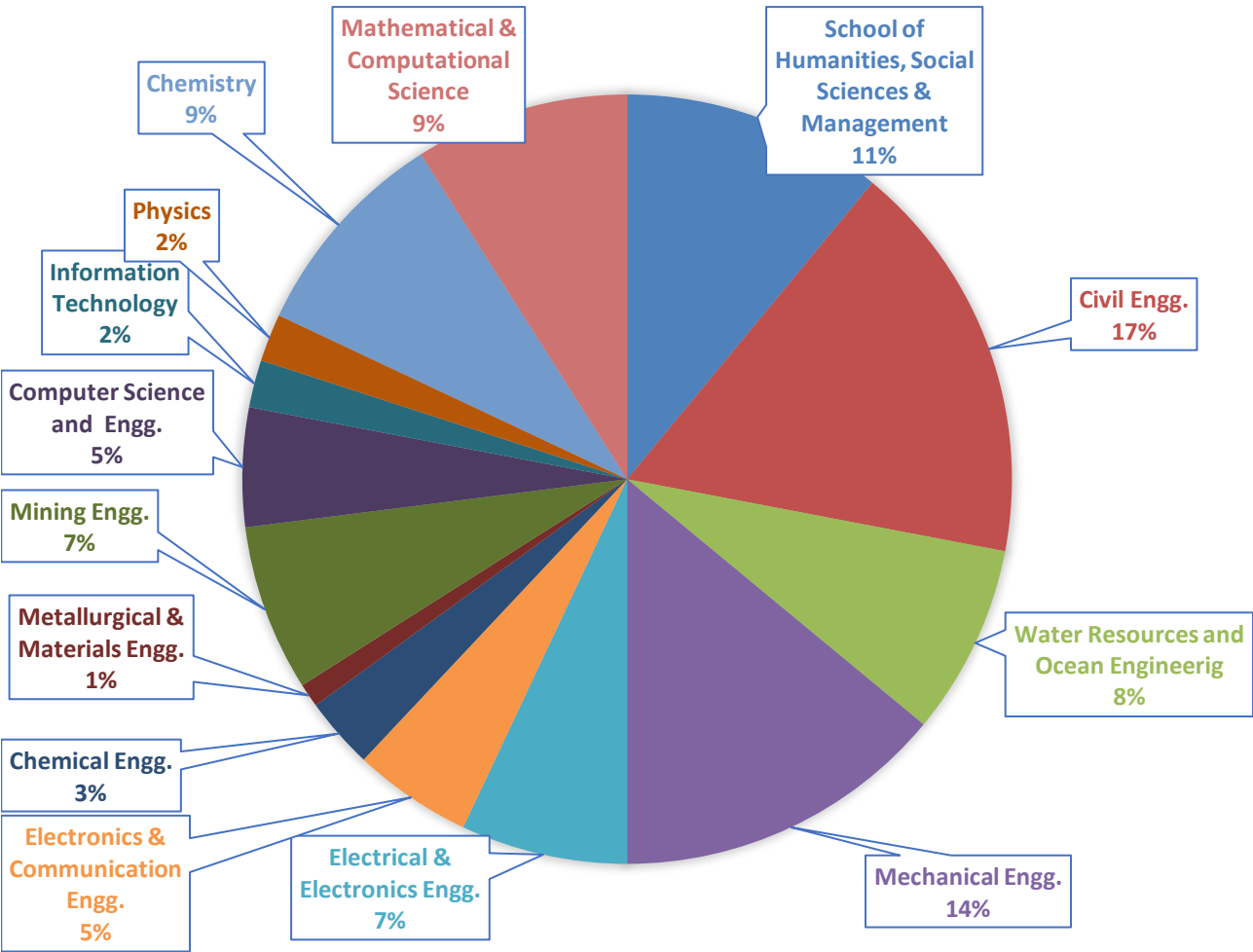
30	Master of Science (Chemistry)	35	29	6	0	35	100%	7
31	Master of Science (Physics)	32	23	7	2	32	100%	5



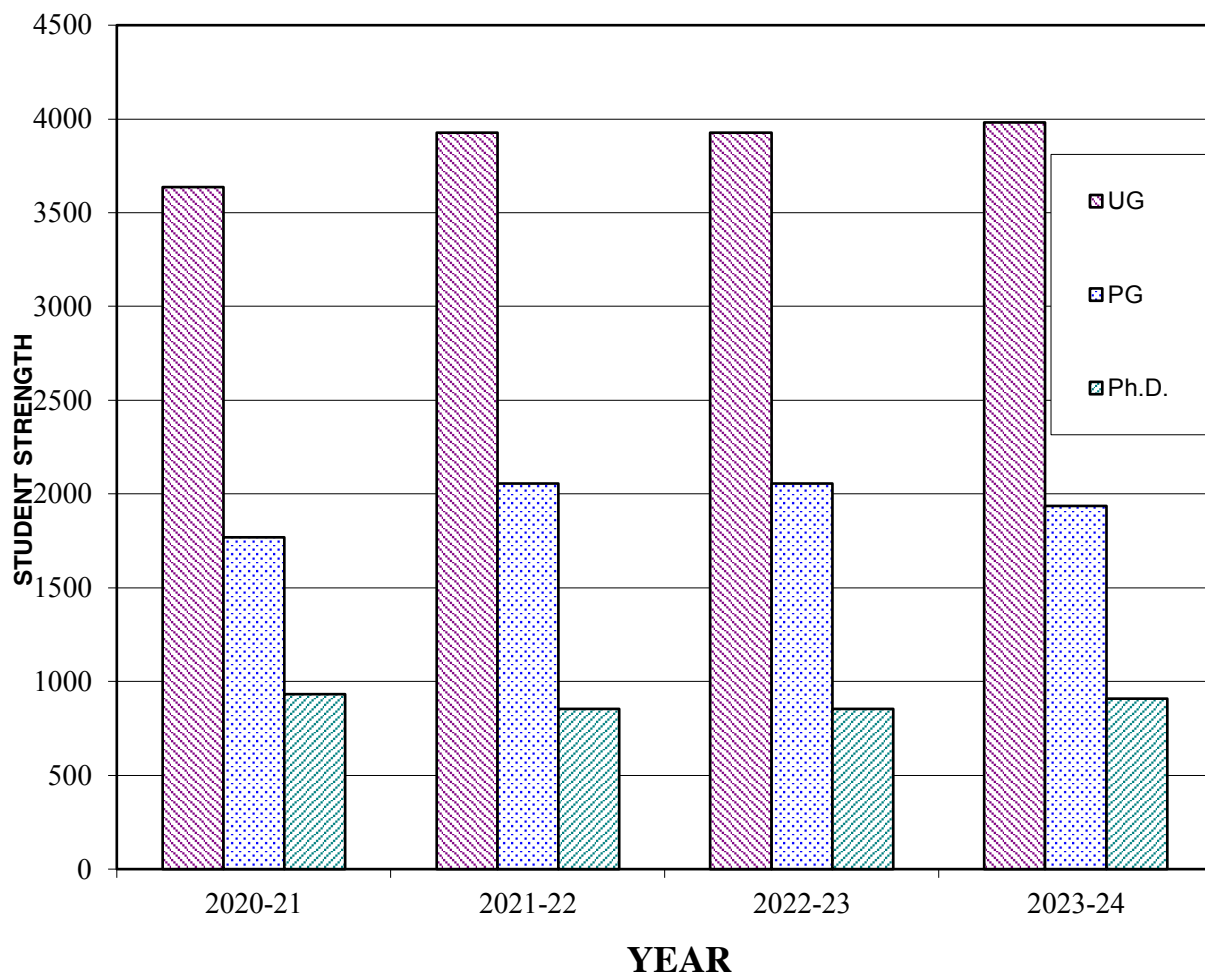
**Pie chart showing discipline-wise B.Tech. admissions for the year 2023-24**



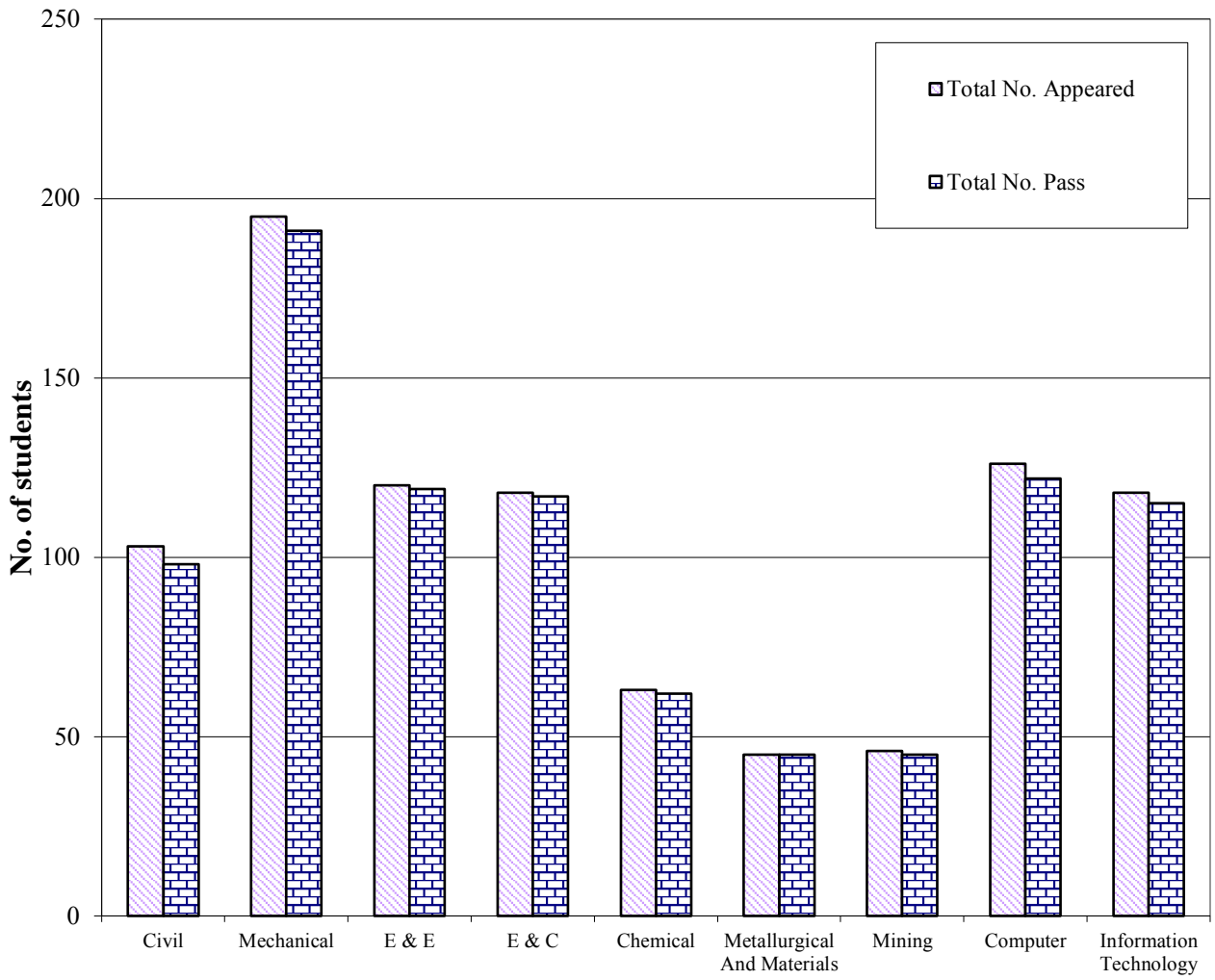
**Pie chart showing discipline-wise M.Tech. admissions for the year 2023-24**



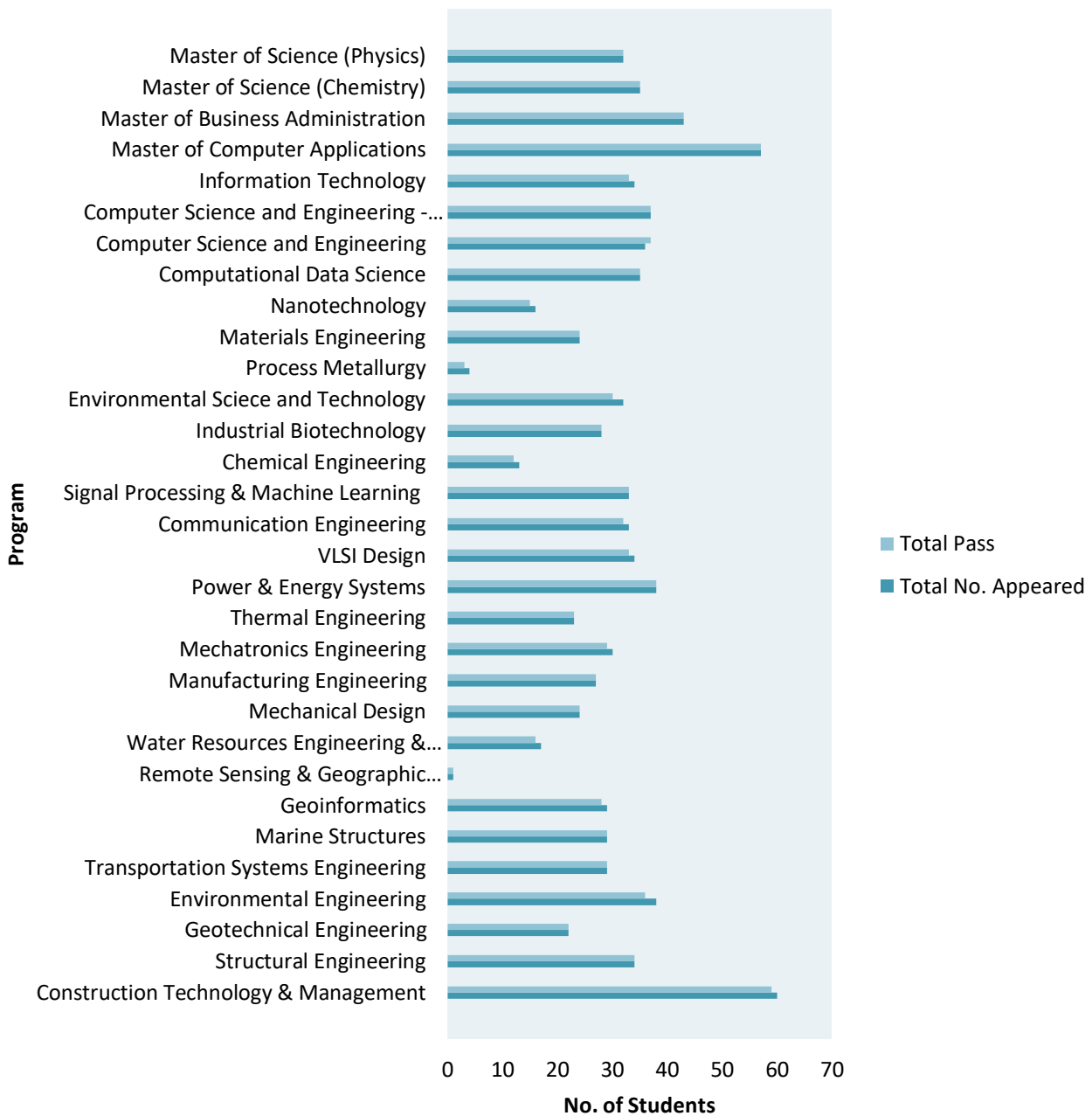
Pie chart showing discipline-wise Ph.D. admissions for the year 2023-24



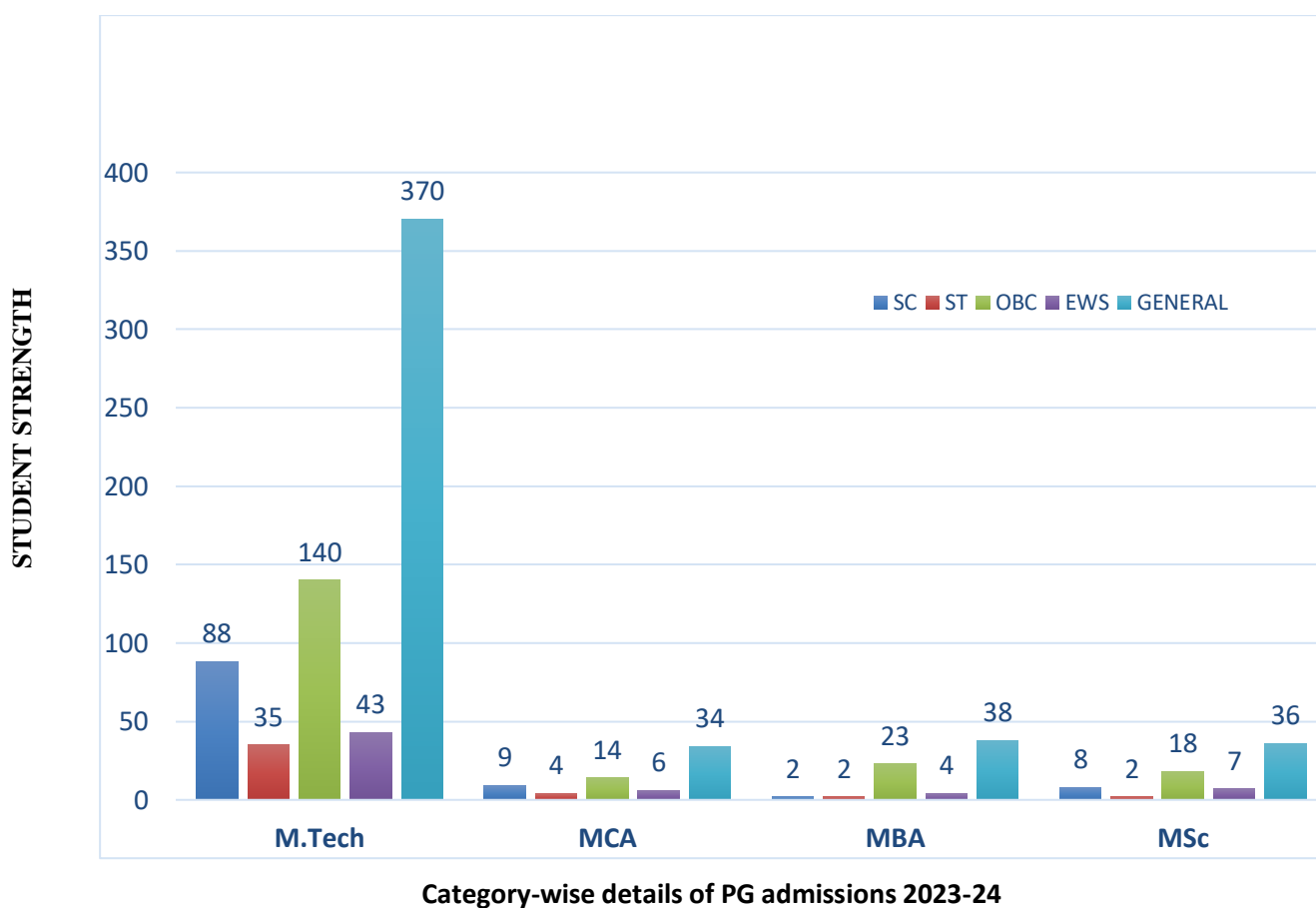
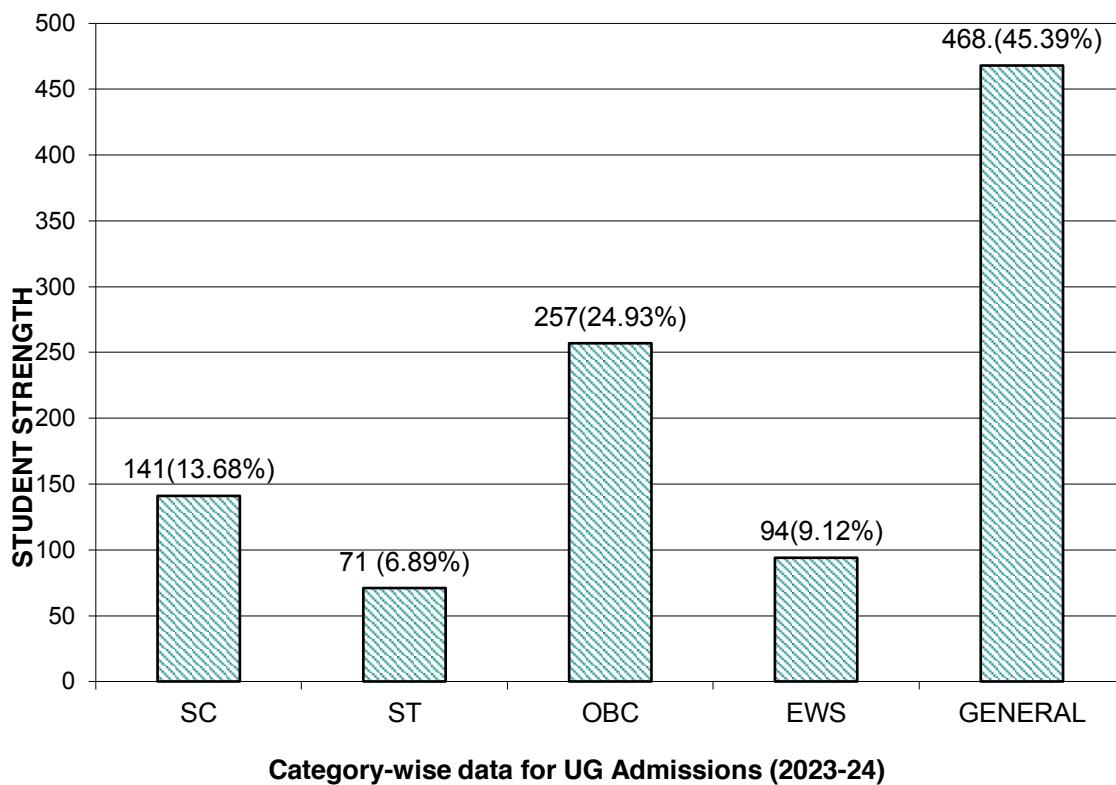
Comparison of student enrolment to UG/PG/Ph.D programs during the last 4 years



**UG Program Exam Results (2023)**



**PG Examination Results 2023**



**Ranks secured by the B.Tech./M.Tech./MCA/MBA/M.Sc. (Physics & Chemistry)****Examination held in April/May, 2023****Student Awardees**

Sl. No.	Branch	Reg. No.	Name of the Student
1	CHEMICAL ENGINEERING	191046CH036	R RAGHAVENDRA 1) Institute Medal 2) Mohan V Hosur Gold Medal 3) 1986 Batch Gold Medal
2	CIVIL ENGINEERING	191667CV129	KEVAL VAGHAMSHI 1) Institute Medal 2) Prof. M. N. Shivshankar Gold Medal 3) Dr. R.K. Yaji Gold Medal 4) 1986 Batch Gold Medal
3	COMPUTER SCIENCE AND ENGINEERING	191662CS155	SHIVANGI TOMAR 1) Institute Medal
4	ELECTRONICS & COMMUNICATION ENGINEERING	191270EC102	AKASH A 1) Institute Medal 2) 1986 Batch Gold Medal
5	ELECTRICAL & ELECTRONICS ENGINEERING	191168EE153	SIDDHARTH R IYER (CGPA: 10.00) 1) Institute Medal 2) Prof. M.R. Shenoy Memorial Prize 3) Prof. K. M. Hebbar Gold Medal 4) 1986 Batch Gold Medal 5) Board Chairman's Medal
6	INFORMATION TECHNOLOGY	191264IT209	APRAMEYA DASH 1) Institute Medal
7	MECHANICAL ENGINEERING	191466ME291	VIBA R UDUPA 1) Institute Medal 2) 1986 Batch Gold Medal 3) Prof. Shuichi Torii Gold Medal
8	METALLURGICAL & MATERIALS ENGINEERING	191174MT034	PRATHAM N 1) Institute Medal 2) Karthik Alloys Gold Medal 3) Prof. H. V. Sudhaker Nayak Gold Medal 4) SMIORE Gold Medal 5) 1986 Batch Gold Medal
9	MINING ENGINEERING	181827MN005	B NAMRATHA KAMATH 1) Institute Medal 2) Hutti Gold Mines Medal



## POSTGRADUATES

## Master of Technology – 2023

Sl. No.	Branch	Reg. No.	Name of the Student
1	Marine Structures	2120121MS018	RANTI DEV VISHWAKARMA 1) Institute Medal
2	Geoinformatics	2120034GF013	KARTIK NAIR 1) Institute Medal
3	Water Resources Engineering & Management	2120419WR005	ASIKA SIDHANA 1) Institute Medal
4	Chemical Engineering	2120285CG008	RAJPUROHIT NILESH SHANKARSINGH 1) Institute Medal
5	Industrial Biotechnology	2120795IB014	KIRAN RAO U 1) Institute Medal
6	Environmental Science and Technology	2120022ES022	MAYA R 1) Institute Medal
7	Construction Technology & Management	2120681CM030	NIKHIL KUMAR SINGH 1) Institute Medal
8	Environmental Engineering	2120084EN012	DEVI PRIYA B 1) Institute Medal
9	Geotechnical Engineering	2120231GT019	SUNILKUMAR P J 1) Institute Medal
10	Structural Engineering	2120708ST009	GANGA P R 1) Institute Medal
11	Transportation Engineering	2120481TS023	NADEEM AKHTAR 1) Institute Medal
12	Computer Science & Engineering	2120051CS001	AASTIK VERMA 1) Institute Medal
13	Computer Science & Engineering – Information Security	2120418IS020	RAYTHATHA YASHVI NILESHKUMAR 1) Institute Medal
14	Power & Energy Systems	2120152PS029	SAWANT SNEHA SHIVAJI 1) Institute Medal
15	Communication Engineering and Networks	2120071CN022	POGIRI DHANUNJAYA RAO 1) Institute Medal
16	VLSI Design	2120393VL010	CHIMBILI POOJITHA 1) Institute Medal
17	Signal Processing and Machine Learning	2120182SP016	NANDI SOUMYADEEP SAMIR ANINDITA 1) Institute Medal
		2120178SP033	SWABHIMAN PATNAIK 1) Institute Medal
18	Information Technology	2120103IT034	VIVEK KUMAR AGRAWAL 1) Institute Medal
19	Computational and Data Science	2120219CD014	PATIL PRATHAM KISHOR 1) Institute Medal

20	Mechanical Design	2120450MD001	ALLU JNANA CHAKRAPANI 1) Institute Medal
21	Manufacturing Engineering	2120134MF022	THAKKAR MAHIMA NITESH 1) Institute Medal 2) Department of Mechanical Engineering Gold Medal
22	Mechatronics Engineering	2120137MC025	PEEYUSH VARSHNEY 1) Institute Medal
23	Thermal Engineering	2120195TH021	SHAH MEET MINESHKUMAR 1) Institute Medal 2) Dr. B. S. Samaga Award 3) Prof. K. L. Bhat & Prof. P. Prasad Rao Gold Medal
24	Materials Engineering	2120115ML017	PATEL YASH JAYMINBHAI 1) Institute Medal 2) Prof. K R Hebbar Gold Medal
25	Nanotechnology	2120147NT001	AKSHAY M 1) Institute Medal
26	Process Metallurgy	2120153PM006	SIVANANDA PRADHAN 1) Institute Medal 2) Smt. Sarojini Pillay Gold Medal

**Master of Computer Applications – 2023**

Sl. No.	Branch	Reg. No.	Name of the Student
27	Master of Computer Applications	204048CA025	MAYANK DUA 1) Institute Medal 2) Dr. Saroja R Hebbar Gold Medal

**Master of Business Administration - 2023**

Sl. No.	Branch	Reg. No.	Name of the Student
28	Master of Business Administration	2150012SM014	FATHIMA TANISHA 1) Institute Medal

**Master of Science - 2023**

Sl. No.	Branch	Reg. No.	Name of the Student
29	Chemistry	2160074CY033	SONAL KAUSHIK 1) Institute Medal 2) Prof. G. H. Kulkarni Gold Medal
30	Physics	2160023PH022	PRIYA AGGARWAL 1) Institute Medal 2) K. Subbarayappa Gold Medal

## 10.7 Ph.D. Programmes & Doctorates Awarded

### 10.7.1 Ph.D. Programs – Existing & Proposed

#### 1. DEPARTMENT OF CIVIL ENGINEERING

##### EXISTING SPECIALIZATION:

Construction Technology and Management, Environmental Engineering, Geotechnical Engineering, Structural Engineering, Transportation Engineering, Earth Sciences.

#### 2. DEPARTMENT OF CHEMICAL ENGINEERING

##### EXISTING SPECIALIZATION:

Chemical Engineering-Process Dynamics and control, Process Modelling and Simulation, System identification, Process Systems Engineering, Process Optimization, Renewable Energy, Industrial Biotechnology, Environmental Engineering.

##### PROPOSED:

Computational Fluid Dynamics, Multi-Phase Flow, Microfluidics, Nano Technology, BioEnergy, Artificial intelligence.

#### 3. DEPARTMENT OF CHEMISTRY

Photocatalysis, Thermoelectrics, Supercapacitors, Nanofluids, Materials for energy and environmental applications. Polymers and dyes.

##### PROPOSED SPECIALIZATION:

Thermoelectrics, nanofluids, photocatalysis, supercapacitors, materials for energy and environmental applications. Biomimetic organic reactions, Electroorganic Synthesis, C-H Functionalization Reactions, Multicomponent Reactions.

#### 4. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

##### EXISTING SPECIALIZATION:

Computer Networks, Software Engineering, Distributed Computing, Data Management, Information Security, High-Performance Computing, Computer Vision, Cloud Computing, Image Processing, Speech Processing, Mobile computing Graph Theory, Graph Algorithms, Big Data Analytics, Internet of Things (IoT), Network-on-Chip(NoC)–2D, 3D, Wireless and Photonic., Testing and Fault-Tolerance, Hardware Security, Formal Verification, and Cyber-Physical Systems, Computer Systems and Architecture, Machine Learning and Distributed Systems, Cloud Computing, FOG Computing, Internet of Things (IoT) Security, Blockchain, Serverless Computing, Computational geometry, Approximation algorithms.

#### 5. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

##### EXISTING SPECIALIZATION:

Digital VLSI Design, Analog and Mixed Signal Design, Digital Signal Processing, Speech, Audio, Image and Video Processing, Digital Communication, Error Control Coding, Free Space Optics, RF MEMS, Microwave and RF Circuits, Wireless Sensor Networks, High-Frequency Electronics, Semiconductor Devices, Embedded Systems, Reconfigurable Computing.

#### 6. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

##### EXISTING SPECIALIZATION:

Power and Energy Systems, Power Electronics and Electric Drives, Control Systems, New and Renewable Energy Systems, Insulation and High Voltage Engineering, Application of Signal Processing, Artificial Intelligence (AI)/Machine Learning (ML), and Algorithms in Electrical Engineering.

## **7. DEPARTMENT OF INFORMATION TECHNOLOGY**

### **EXISTING SPECIALIZATION:**

Affective Computing, Artificial Intelligence, Big Data Analytics, Bioinformatics, Biomedical Imaging, Blockchain Technologies, Cloud/Edge/Fog Computing, Cloud Security, Computer Networks, Cryptography, Computer Vision, Cyber Security, Databases, Data Mining, Deep Learning Applications, Distributed Computing, Evolutionary Deep Intelligence; Future Internet Architecture, Healthcare Informatics, High-Performance Computing, Information Retrieval, Information Security, Internet of Things, Mobile Software Engineering, Natural Language Processing, Network Security, Quantum Computing, Quantum Cryptography, Scientific Imaging, Semantic Web Technology, Security Analytics, Social Multimedia/Social Network Analysis, Software Engineering, Spatial Data Analytics, Web Services, Wireless Networks, 5G and Beyond.

## **8. DEPARTMENT OF MECHANICAL ENGINEERING**

### **EXISTING SPECIALIZATION:**

- Thermal Engineering
- Manufacturing Engineering
- Design and Precision Engineering
- Mechatronics Engineering

## **9. DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**

### **EXISTING SPECIALIZATION:**

Process Metallurgy, Physical Metallurgy, Mechanical Metallurgy, Materials Engineering, Nanotechnology, Biomaterials

## **10. DEPARTMENT OF PHYSICS**

### **EXISTING SPECIALIZATION:**

Solid State Physics, Materials Science, Theoretical Physics, Photonics, Compound Semiconductor thin films, Organic Electronics (OLED, Photovoltaics), Cosmology and Early Universe Theoretical investigation of strongly correlated systems and solar cells. Theoretical studies of Quantum materials & topological insulators.

### **PROPOSED:**

Plasmonics, Nanomaterials and Nanostructures, Photonics Nonlinear Dynamics, Active Matter Electrode Materials.

## **11. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT**

### **EXISTING SPECIALIZATION:**

Strategic Management, International Business, Technology Management, Organizational Behaviour, Human Resource Management, Marketing, Corporate Finance, Capital Markets, Behavioural Finance, Development Economics, International Economics, Agricultural Economics, Rural Development, Applied Econometrics, Operations Management, Information Systems, E-Governance, English and Comparative Literature, and Other related areas.

## **12. DEPARTMENT OF MINING ENGINEERING**

Rock Mechanics and Ground Control, Drilling and Blasting, Mine Planning, Environmental Management, Waste Management, Reliability and Safety Engineering, Occupational Ergonomics.

### 13. DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

#### EXISTING SPECIALIZATION

- (i) Coastal Engineering
- (ii) Water Resources Engineering
- (iii) Geoinformatics

#### 10.7.2 Doctorates Awarded

##### 1. DEPARTMENT OF CHEMICAL ENGINEERING

- ❖ Ms. Deekshitha, “Microbial mediated synthesis of visible light active silver based titania nanocomposites and their photocatalytic applications in degradation of azo dye”, Dr. Vidya Shetty K.
- ❖ Ms. Sunaina Patil, “A study on effect of transition metal oxides on ceria praseodymium catalyst for soot oxidation activity and its kinetics”, Dr. Hari Prasad Dasari
- ❖ Mr. Sanjith S Anchan, “Robust Multivariable controller design for an activated sludge Process”, Dr. Chinta Sankar Rao
- ❖ Ms. Amruta S Shet, “Nanofluid Mediated Gas–Liquid Mass Transfer Enhancement in Pulsed Plate Column”, Prof. Vidya Shetty K
- ❖ Ms. Minimol M, “Bioleaching of Metals from Electronic waste by Heterotrophic bacteria in Fluidized-bed Bioreactor.” Prof. M. B. Saidutta and Prof. Vidya Shetty K
- ❖ Ms. Thara Rathana, “Reduction of Chromium using Polyaniline based composite membrane in a photocatalytic membrane reactor” Dr. Jagadeesh Babu.

##### 2. DEPARTMENT OF CIVIL ENGINEERING

No. of PhD Awarded: 08 (including those for whom viva has been successfully completed).

- ❖ Shivaraj Halyal, “Performance Analysis of Hubli-Dharwad Bus Rapid Transit System”, June 2023, Dr. Raviraj H. M.
- ❖ Pankaj Bariker, “Experimental and Numerical Investigations on Finned Pile Foundations Subjected to Lateral Loads”, September 2023, Dr. Sreevalsa Kolathayar
- ❖ Rashmishree, K. N., “Investigations on the Role of Green Synthesised Iron Nanoparticles in the Fenton’s Oxidation of Triclosan in Wastewater”, November 2023, Prof. Arunkumar Thalla and Prof. S. Shrihari.
- ❖ Kothuri Mahindra, “Investigation on Synergetic Effect of Biomineralization and Ash-based Soil Stabilization”, December 2023, Prof. C. P. Devatha.
- ❖ Ujwala Shenoy K, “Multi-phase soil modeling for refinement of slope stability analysis”, January 2024, Prof. K.S. Babu Narayan & Prof. Sunil B.M.
- ❖ Prasanna K M, “Mechanical and Microstructural Properties of Geopolymeric Fly ash Based Mortar Cured in Ambient conditions”, February 2024, Prof. B. B. Das & Prof. Gangadhar Mahesh.
- ❖ Sachin H, “Vibration, Buckling, and Dynamic Instability Studies on FGM Plates under Conservative and Non – Conservative System of Forces”, February 2024, Dr. Pavan G. S. and Prof. K Swaminathan (Retd.).
- ❖ Surya Nair K., “Evaluation of Fenton's Oxidation for Treatment of Selected Paint Emulsions and its Residual Toxicity in Water”, March 2024, Prof. B. Manu.

##### 3. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DURING PERIOD 1<sup>ST</sup> APRIL 2023 TO 31<sup>ST</sup> March 2024: No. Awarded: 09

- ❖ Uma Priya D. (Reg. No.: 177057CO007) “Schema-Aware Indexes for Json Document Collections” 18-04-2023, Prof. P Santhi Thilagam.

- ❖ Ajnas Muhammed (Reg. No.: 177079CO001) "Design and Analysis of Cancelable Fingerprint Template Generation using Visual Secret Sharing", 25-04-2023, Prof. Alwyn Roshan Pais.
- ❖ Pawan S Jogi, (Reg. No.: 197508CS501), "Capsule Network Architectures for Biomedical Image Processing", 18-05-2023, Dr. Jeny Rajan.
- ❖ Pradeep Nazareth (Reg. No.: 177028CO003), "Optimized Void-Aware Routing Protocol for Underwater Acoustic Sensor Networks", 27-06-2023, Dr. B. R. Chandavarkar.
- ❖ Rashmi Adyapady R. (Reg. No.: 177029CO004) "Emotion Recognition from Posed and Non-Posed Facial Expressions", 08-09-2023, Prof. Annappa B.
- ❖ Manjunatha, (Reg. No.: 155120CS15FV07), "Real-Time Big Data Analytics for Public Safety in Smart City", 16-10-2023, Prof. Annappa B.
- ❖ Dodia Shubham Jagadish, (Reg. No.: 187126CO006), "Deep Learning-Based Decision Support System for Lung Cancer Detection", 16-10-2023, Prof. Annappa B.
- ❖ Nitesh Naik, (Reg. No.: 197091CS004), "Deep Learning Models for Change Detection Analysis using Geo-Spatial Data", 17-10-2023, Prof. K. Chandrasekaran & Dr. Venkatesan.
- ❖ M. Somesha M., (Reg. No.: 187105CO004), "Phishing Email and URL Detection using Machine learning and Deep learning", 19-10-2023, Prof. Alwyn Roshan Pais.

#### 4. DEPARTMENT OF CHEMISTRY

Up to 31<sup>st</sup> March 2024: 111

During period 1<sup>st</sup> April 2023 to 31<sup>st</sup> March 2024: 09

- ❖ Pushyara P V, Role of electrostatic interaction, aromaticity, hydrophobicity in protein and protein-ligand dynamics, April 2023, Dr. Debashree Chakraborty.
- ❖ Panchami H R, Studies on composite polyphenyl sulphone membrane for protein rejection application, April 2023, Dr. Arun Mohan. Isloor.
- ❖ Navya Subray Bhat, Catalytic preparation and value addition of renewable chemical intermediates from carbohydrates, April 2023, Dr. Saikat Dutta.
- ❖ Shruthi H, New lubricity additives for ultra-low sulphur diesel: Synthesis, characterization and evaluation of lubricity properties, May 2023, Dr. Uday Kumar Dalimba
- ❖ Anjana A.V, Electrochemical studies of conducting polymer and activated carbon-based vanadium substituted polyoxometalates hybrid electrode materials for energy application, May 2023, Dr. Sib Sankar Mal
- ❖ Bratin Kumardas, In-silico design of potent therapeutic agents against dihydropteroate synthase SARS-COV2 and pre-fibrillar prion amyloidosis, Sep 2023, Dr. Debashree Chakraborty.
- ❖ Harshitha N Anchan, Synthesis of high-value chemicals and materials from renewable resources, Dec 2023, Dr. Saikat Dutta
- ❖ Nivedha Vinod, Energy densification of carbohydrate-derived chemical platforms by catalytic hydrogenation and esterification reaction, Jan 2024, Dr. Saikat Dutta
- ❖ Vishrutha K.S, Molecular design and synthesis of new cyanopyridone-based small molecules for OLED application, March 2024, Dr. Badekai Ramachandra Bhat

#### 5. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

UP TO 31<sup>ST</sup> MARCH 2023: No. Awarded (including those for which viva has been successfully completed): 71

- ❖ G. V. S. S. K. R. Naganjaneyulu, "Development of Smart Strategies and Devices for Technical Analysis in Various Market Paradigms", 21<sup>st</sup> February 2024, Dr. A. V. Narasimhadhan.

- ❖ Palla Parasuram Yadav, "Novel Approaches in Hyperspectral Image Analysis for Endmember Extraction, Spectral Matching, Change Detection and Mineral Classification", 4<sup>th</sup> January 2024, Dr. A. V. Narasimhadhan, Dr. Raghavendra B. S. and Dr. Amba Shetty.
- ❖ Poluboina Venkateswarlu, "Enhancing Speech Perception in Cochlear Implants: Novel Approaches in Encoding Temporal Fine Structures and Noise Reduction", 11<sup>th</sup> October 2023, Dr. Aparna P.
- ❖ Purushottama T. L., "Development of Novel Techniques for Passive RADAR with Waveform Design, Tracking and Sequential Fusion", 3<sup>rd</sup> April 2023, Dr. P. Srihari.
- ❖ Pokala Sudhakar Reddy, "Subspace Swap Improvement Techniques for Finite Rate of Innovation Signal Reconstruction", 8<sup>th</sup> December 2023, Dr. Raghavendra B. S. and Dr. A. V. Narasimhadhan.
- ❖ Muhammed Mansoor C. B., "Low voltage, energy efficient analog circuits for low power applications", 11<sup>th</sup> August 2023, Dr. Rekha S.
- ❖ Amit Kumar Chanchal, "Deep Learning for Nuclei Segmentation and Classification of Histopathology Images", 25<sup>th</sup> April 2023, Dr. Shyam Lal.

## 6. DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

DURING PERIOD 1ST APRIL 2023 TO 31st March 2024: No. Awarded: 15

- ❖ Rashmi, "Performance Analysis and Control of HVDC Links in Multi-Machine Systems with Wind Farms", 2024, Dr. Dattatraya N. Gaonkar.
- ❖ Jeeru Dinesh Reddy, "FPGA Based Physical Unclonable Function (PUF)- A Hardware Security Macro for Securing Smart Meter Systems in IOT Environment", 2023, Dr. Panduranga Vittal K.
- ❖ Roystan Vijay Castelino, "Design and Development of Flight Controller for Kite-Based Wind Power Generation Systems", 2023, Dr. Yashwant Kashyap.
- ❖ Siddaraj, "Operation and Control of the Microgrid with Multiple Distributed Energy Resources", 2023, Dr. Udaykumar R Yaragatti & Dr. Nagendrappa H.
- ❖ Aditya Kancharapu, "Design and Development of Capacitor-Based Multilevel Inverters", 2023, Dr. Y. Suresh.
- ❖ Bhukya Nageswar Rao, "Design and Development of Novel Multilevel Inverters with Common Leg Configuration by Employing Transformers", 2023, Dr. Y. Suresh.
- ❖ Asif Abdullah, "A Less Invasive and Computationally Efficient Silent Speech Interface Using Facial Electromyography", 2023, Dr. Krishnan C.M.C.
- ❖ Vishnu Sidharthan P, "Intelligent Power Allocation Strategy for Electric Vehicles", 2023, Dr. Yashwant Kashyap.
- ❖ Kiran Bathala, "Isolated Bidirectional DC-DC Converters to Integrate PV with Energy Storage Systems for High Power Density Applications", 2023, Dr. Nagendrappa H.
- ❖ Teena Johnson, "Enhanced Power System Monitoring and Analysis Using Synchrophasor Technology", 2023, Dr. Tukaram Moger.
- ❖ Kiran R., "Design and Development of Dual-Input DC-DC Converter Based Hybrid Power Supply System for Telecom Load", 2023, Dr. Kalpana R.
- ❖ Swathi Tangi, "Voltage Control in Smart Distribution Network with Distributed Energy Resources", 2023, Dr. Dattatraya N. Gaonkar.
- ❖ Mir Khadim Ali, "Modelling and Analysis of Phasor Measurement Units for WAMS Applications", 2023, Dr. Shubhanga K.N.
- ❖ Ann Mary Joshua, "Development of Protection Schemes for Microgrids with Integrated Battery Energy Storage", 2023, Dr. Panduranga Vittal K
- ❖ Pittam Krishna Reddy, "Performance Enhancement of Switched Reluctance Motor Drive Using Direct Torque Control Strategies", 2023, Dr. P. Parthiban.



## 7. DEPARTMENT OF INFORMATION TECHNOLOGY

UP TO 31<sup>ST</sup> MARCH 2022: 34

DURING PERIOD 1<sup>ST</sup> APRIL 2023 TO 31<sup>ST</sup> MARCH 2024: 7

- ❖ ARCHANA BHAT (165016IT16FV02) "A Framework for IPv6 Based Energy Efficient Routing in IoT with Low Power Lossy Network and Multimodal Sensors" May 2023, Dr. Geetha V.
- ❖ MUMMADI SWATHI (197064IT001) "Enhanced Architecture for Asymmetric Quantum Syndrome Error Correction" May 2023, Dr. Bhawana Rudra.
- ❖ SALVI SANKET SARANG (177045IT001) "A Framework for Efficient Modulation Techniques for Visible Light Communication Under Indoor Environment Based IOT Applications" June 2023, Dr. Geetha V.
- ❖ SHASHANK (177087IT502) "An Intelligent Framework for An Effective Clinical Recommendation System to Predict Diseases from Multimodal Medical Data" July 2023, Prof. Ananthanaraya V S
- ❖ RASHMI M (187058IT003) "Unobtrusive Context-Aware Human Identification and Action Recognition System for Smart Environments" August 2023, Prof. G. Ram Mohana Reddy.
- ❖ SUNIL C K (187129IT005) "Plant Disease Detection Using Deep Learning-based Approach" August 2023, Dr. Jaidhar C D & Dr. Nagamma Patil.
- ❖ RANJIT KOLKAR (187059IT002) "A Framework for Human Activity and Behavioural Pattern Recognition in Multimodal Sensor Smart Home Environment" February 2024, Dr. Geetha V.

## 8. DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

- ❖ Shashank Kulamarva, "A study on Acyclic edge Colorings and Domination number of a graph", 2024, Dr. S M Hegde
- ❖ Muhammed Saeed K, Iterative methods and its applications for solving nonlinear ill-posed equations, (2019-2023), Defended on 27th December 2023 (with P. Jidesh).
- ❖ Krishnendu R, On numerical realization of regularization methods for ill-posed equations, (2019-2023) Defended on 9th January 2024 (with P. Jidesh).
- ❖ Athira Satheesh, "A study on reverse order law for Moore-Penrose inverse", 2024, Dr. P. Sam Johnson.
- ❖ Susil Kumar Bishoi, "Design and Analysis of Symmetric Cryptographic Primitives", 2023, Dr. Kedarnath Senapati, and Prof. B R Shankar

## 9. DEPARTMENT OF MECHANICAL ENGINEERING

- ❖ Vishwanath Bhajantri, "Assessing the suitability of thermally sprayed fly ash coatings for marine structures", 2023, Dr. Sudhakar C. Jambagi.
- ❖ Mohammed Sohail Bakshi, "Development and mechanical characterization of halloysite nanotubes reinforced syntactic polymer nanocomposite foams for weight-sensitive structural application", 2023, Dr. Subhaschandra Kattimani.
- ❖ Twinkle C M, "Buckling and free vibration of cylindrical panels under non-uniform edge loads", 2023, Dr. P Jeyaraj.
- ❖ Jitender Kumar Chaurasia, "Laser Directed Energy Deposition of Inconel 625 Alloy for Repair & Feature Addition Applications: An Experimental and Numerical Investigation", 2023, Dr. Srikanth Bontha.
- ❖ Naidu Balireddy S, "Vibro-Acoustics of Beams Under Variable Axial Loads", 2024, Dr. P Jeyaraj. **D**

## 10. DEPARTMENT OF MINING ENGINEERING

During the 1st April 2023 to 31st March 2024:



- ❖ Balaji Rao K (17MN001), titled: Assessment and Evaluation of Pongamia Pinnata Oil as an Alternative Fuel for Mine Equipment, July 2023 under the guidance of Dr. B. M. Kunar and Prof. Ch S. N. Murthy, (Retd. Professor, Dept. of Mining Engineering).
- ❖ Mr. Barath Kumar S (17MN002) titled: Design Performance Prediction using Machine Learning Techniques, October 2023 under the Guidance of Prof. Harsha Vardhan and Prof. M. Govinda Raj
- ❖ N.V.V. Prudhvi Krishna B (16MNP02), Performance of a Boost Multi-Level Inverter for Mining Applications, November 2023 under the guidance of Dr. B.M. Kunar and Prof. Ch S. N. Murthy, (Retd. Professor, Dept. of Mining Engineering).

## 11. DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

No. awarded (including those for which viva has been successfully completed)

Up to 31<sup>st</sup> March 2023: 76

During period 1<sup>st</sup> April 2022 to 31<sup>st</sup> March 2023: 09

- ❖ Manjunath (197MT004), "Studies on atmospheric plasma sprayed  $Mn_{1.0}Co_{1.9}Fe_{0.1}O_4$  coating on Crofer 22 APU interconnect for solid oxide fuel cells applications", 2023, Guide: Dr. B. Rajasekaran
- ❖ Fredy James J. (177MT003), "Development of  $Al_2O_3 - Sm_2SrAl_2O_7$  Ceramic Composite Thermal Barrier Coatings for High Temperature Applications", 2023, Guide: Dr. Shashi Bhushan Arya.
- ❖ Arun Kumar D. S. (177MT002), "Fabrication of Low-Cost Flexible Carbon Nanotube Coated Fabric for Special Applications", 2023, Guide: Dr. M. Rizwanur Rahman
- ❖ N. Purushotham (197MT005), "The effect of temperature-dependent properties on the high temperature sliding wear behaviour of detonation sprayed Ni-based coatings", 2023 Guide: Dr. B. Rajasekaran
- ❖ K. Divya Bharathi (177MT005), "Development and Characterization of Metal/Carbon Nanomaterial Composite Coating Prepared by Electrodeposition Technique", 2023 Guide: Dr. M. Rizwanur Rahman
- ❖ Ashritha Salian (187MT001), "Solution Combustion Processed High Entropy Oxide Dielectrics for Microelectronic Applications", 2023, Guide: Dr. Saumen Mandal Date of viva: 14-10-2023
- ❖ Govind Shreenivas Ekbote (177MT004), "Development of Poly (vinylidene fluoride) based Nanotextiles for Piezoelectric and Triboelectric Energy Harvesting", 2023, Guide: Dr. Anandhan Srinivasan.
- ❖ Kumar B. (177031MT006), "Microstructure and Mechanical Properties of Al-Si Alloy Processed by Multi-Directional Forging", 2023, Guide: Dr. Preetham Kumar G. V.
- ❖ Augustine Samuel Alberts (187074MT002), "Heat Transfer Studies during Quench Hardening of Steels", 2024, Guide: Dr. K. Narayan Prabhu

## 12. DEPARTMENT OF PHYSICS

Up to 31<sup>st</sup> March 2024: 60

During period 1<sup>st</sup> April 2023 to 31<sup>st</sup> March 2024: 4

- ❖ Mr. Mathewos Tulore Dutebo "Structural, physical and optical properties of rare earth oxides doped calcium phosphate glasses with and without silver nanoparticles", 2023, Prof. H D Shashikala, 2023.
- ❖ Mr. Safir T K, "Properties of Rindler Horizon and Some Aspects of Black Hole Chemistry is Massive Gravity" 2023, Dr. Deepak Vaid
- ❖ Ms. Subhasmita Ray "Investigation of 2D metal chalcogenide nanostructures for solar cell applications", 2023, Dr. Kartick Tarafder
- ❖ Mrs. Amrutha S V, "Dynamics and Control of Chemical waves in Heterogeneous BZ reaction", 2023, Dr. T K Shajahan

### 13. DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

Upto 31<sup>st</sup> March 2023: 117

During period 1<sup>st</sup> April 2023 to 31<sup>st</sup> March 2024: 16

- ❖ Chythanya Krishnan, Rainfall and Regional Groundwater Modelling of He West Coast Basins Of India, April 2023, PROF. AMAI MAHESHA
- ❖ Niranjana S, Spatio, Temporal Modeling of Reference Crop Evapotranspiration Across Karnataka State, India, April 2023, PROF. LAKSHMAN NANDAGIRI
- ❖ Athul Krishna K R, Studies on Wave Interaction with Composite Breakwater System, April 2023, DR. DEBABRATA KARMAKAR
- ❖ Arunkumar H S, Exploring the Hydraulic Performance of The Conical Pile Head Breakwater -An Experimental Investigation, June 2023, DR. PRUTHVIRAJ.U, PROF. KIRAN G. SHIRLAL.
- ❖ N. Murugan, Static Structural Studies on Reinforced Tubular T-Joints of Offshore Jacket Structures, June 2023, DR. VADIVUCHEZHIAN K, DR. SUBRAHMANYA K.
- ❖ Ashwitha S K, A Remote Sensing and Machine Learning Based Framework for The Assessment of Spatiotemporal Water Quality Along the Middle Ganga Basin, July 2023, DR. RAMESH H
- ❖ Mallikarjun S Bhandiwad, Performance Evaluation of Vertical Porous Screen in A Sloshing Tank by Analytical and Experimental Investigation, July, 2023, DR. B. M DODAMANI.
- ❖ Parthasarathy K. S. S., Flood Susceptibility Modelling Using Remote Sensing – Machine Learning Approach and Optical Water Quality Analysis of Vembanad Lake System in Kerala, India, October, 2023, DR. SUBRAHMANYA KUNDAPURA
- ❖ Surajit Deb Barma, Evaluation of the Water Budget Components of The Brahmaputra River Basin Using Satellite Data, October 2023, PROF. AMAI MAHESHA.
- ❖ Shivakumar B. Patil, Hydrodynamic Performance of Submerged Tandem Breakwaters and Integrated Hybrid Floating Structures, November 2023, DR. D. KARMAKAR.
- ❖ PREETI JACOB, Experimental Study on Effect of Aggregate Size on The Hydraulic Properties of Pervious Concrete, December 2023, PROF. G. S DWARAKISH.
- ❖ DEEPA C, Advanced Spectral Spatial Approaches for Dimensionality Reduction of Hyperspectral Data, January 2024, PROF. AMBA SHETTY.
- ❖ AYILOBENI KIKON, Assessment of Drought Indices for The Meteorological Subdivisions of India Using Machine Learning Techniques, January 2024, DR. B. M DODAMANI.
- ❖ SINTAYEHU YEDETE TOLA, Flood Modeling and Mapping in The Upper Awash River Basin, Ethiopia, February 2024, PROF. AMBA SHETTY.
- ❖ SWATHI SHETTY, Assessment of Future Transition in Climate Extremes Over Western Ghats of India Using Machine Learning Based Multi-Model Ensemble Techniques, February 2024, DR. PRUTHVIRAJ U.
- ❖ FISEHA BEFIKADU, INTEGRATED SURFACE WATER RESOURCE MODELING AND IRRIGATION PRODUCTIVITY IN LOWER BARO, ETHIOPIA, March 2024, PROF. AMBA SHETTY

### 14. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT

DURING PERIOD 1<sup>ST</sup> APRIL 2023 TO 31<sup>ST</sup> March 2024: - No. Awarded (including those for which viva has been successfully completed): -8

(FOR PERIOD OF REPORT ONLY)

- ❖ Mr. Sreekanth P.V., “The Impact of Digital Financial Services on the Performance of Commercial Banks in India”, 19.12.2023, Prof. K.B. Kiran
- ❖ Ms. Crystal Glenda Rodrigues., “Impact of Select Factors on the Financial Risk-Taking Propensity and Hypothetical Portfolio Creation of Individuals”, 18.12.2023, Dr. Gopalakrishna B.V.

- ❖ Mr. Lalatendu Mishra., “A Study on the Effect of Oil Price on Stock Returns of the Renewable Energy Firms in India”, 28.11.2023, Dr. Rajesh Acharya H.
- ❖ Mr. Purna Chadra Tanti, “Essays on the Adoption and Impact of Climate Smart Agriculture Practices: Insights from Rural Farmers of Odisha”, 17.10.2023, Prof. Pradyot Ranjan Jena.
- ❖ Mr. Prathvi TN " A Comparative Analysis of Economic, Social and Environmental Efficiency of Major Seaports in India”, 25.08.2023, Prof. Pradyot Ranjan Jena.
- ❖ Ms. Sreepriya J, “The Impact of Non-Financial Indicators on Corporate Financial Performance with Reference to Manufacturing Sector in India”, 25.07.2023, Dr. Suprabha K.R.
- ❖ Ms. Annette Sonia Maben, “Impact of Talent Management Strategies on Employee Engagement”, 28.07.2023, Dr. Rashmi Uchil.
- ❖ Ms. Pranamy Bhat, “Interpellation of Masculinities: A Study of Select South Asian Literatures”, 24.04.2023, Dr. Dhishna P.

## 10.8 Students Council

An election to the Students’ Council was held on 4.4.2023. The following students were elected as Office Bearers for the Institute Students Council for the Academic Year 2023-2024.

President	: Mr. Kunal Singh Tawar
Vice President	: Ms. Uthiksha Sridhar
General Secretary	: Mr. Punit Raj
Joint Secretary	: Yatharth Tripathi

## 10.9 Student Activities

### ORGANIZED SPORTS DURING THE ACADEMIC YEAR 2023-24

Sl. No	Inter NIT Sports organized	Other events organized
01.	<p><b><u>All India Inter NIT Handball (M&amp;W), Kabaddi (M&amp;W) -</u></b></p> <p>All India Inter NIT Tournament in Handball and Kabaddi (Men and Women) was organized from 27<sup>th</sup> October to 29<sup>th</sup> October 2023 at our Institute. More than 650 students from other NITs participated in this tournament. Participating teams were provided with free Boarding and Lodging facilities.</p>	<p>Phoenix, Freshers Cup, PG Cup, RPL, Slam Dunk Basketball championship, NITK Football Cup, Coliseum, etc.</p> <p><b><u>Phoenix</u></b> – Phoenix is a sports activity and indoor game facilities for the residents of the hostel. It is managed by a group of elected students from the hostel representatives.</p> <p><b><u>Freshers Cup</u></b> - The Freshers Cup Tournament was organized from 17<sup>th</sup> Nov. to 19<sup>th</sup> Nov. by the Phoenix Committee.</p> <p><b><u>PG Cup</u></b> – PG Cup 2024 is hosted by PG Students from 22<sup>nd</sup> Feb. to 25<sup>th</sup> Feb 2024. Various sports events such as cricket, football, basketball, volleyball, throwball, badminton, table tennis, kho-kho, carrom, box cricket, and chess were organized by the students.</p> <p><b><u>RPL</u></b> – NITK RPL is hosted by the Research Students of NITK from 9<sup>th</sup> Feb. to 11<sup>th</sup> Feb. 2024. Various sports events such as cricket, football, volleyball, badminton, throwball table tennis, chess, carrom, shot put, and basketball were organized by the students.</p> <p><b><u>SLAMDUNK Basketball Championship</u></b> – The NITK Basketball Team hosts the flagship sports event SLAM DUNK during the cultural fest every year. SLAM DUNK is the invitational inter-collegiate basketball tournament for men and women</p>

		<p>featuring participation from some of South India's best college/university teams. The tournament has gained great prestige and reputation over the years.</p> <p><b><u>NITK Football Cup 2024</u></b> – The NITK football team successfully conducted the tournament from 15<sup>th</sup> March to 17<sup>th</sup> March 2024. Eight college teams were participating with a total of 150 players.</p> <p><b><u>Coliseum</u></b> – The Coliseum was hosted by the Crescendo Committee from 15<sup>th</sup> March to 17<sup>th</sup> March 2024. It is an inter-department sports competition. Various sports activities such as chess, carroms, cricket, volleyball, basketball. Throwball &amp; box cricket were conducted.</p>
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### **NADAL (NITK Academy for Defence, Adventure and Leadership).**



Inaugural Function of NADAL

NITK Academy for Defence, Adventure & Leadership is an initiative of NITK Surathkal Alumni Association to motivate & prepare the students to join the Indian Armed Forces. This Academy is operated under the guidance of three senior retired Armed Forces Officers Air Marshal BU Chengappa (Retd), Maj General Padmanabhan (Retd) and Commodore Kailash Girwalkar (Retd) and supported by the President and Gen Secretary of the NITK Alumni Association. The

Academy will have a center with various Armed Forces artifacts and books that will inspire the

students to consider a career in Armed Forces. There will be various motivational lectures by Officers of the Armed Forces. Various training will be conducted by retired Defence Personnel to prepare the students for a career in the Armed Forces. In addition to this, there will be activities related to adventure and Leadership skills. In addition to motivating and preparing the students for a career in the Armed Forces, this program will nurture discipline, leadership and risk-taking ability that will help them in general for a civilian career too. While the Academy is being setup in the NITK Surathkal campus and will directly benefit the students of NITK, it will also support deserving needy students in the local region.

### **15th Global Convention in Washington**

15th Global Convention in Washington on 25th August to 27 August 2023. The Global Alumni Association



(NITK Surathkal Alumni Association) organized 15th Global Convention 25-27 August 2023 in Washington. About 270+ alumni attended the convention with many alumni joined by their families.



Address by Director-15th Global Convention in Washington

Alumni group -15th Global Convention in Washington

**Several batches of KREC/NITK visited the campus in person during the month of December 2023.**

### **Reunion of the MCA Batch**





On December 16, 2023, a group of MCA alumni visited the campus. They held a stage function and felicitated their faculty members. Besides, they assured of contributing to the alma mater in various possible ways.



A Group photograph of 1998 MCA Batch

### Reunion of the BE 1998 Batch

About 200 alumni from 1998 batch visited the campus during 22nd Dec-24 Dec, 2023. The group had a stage function in the Main Seminar Hall and also visited different departments and centres. They assured of supporting their alma mater in near future.



A Group photograph of 1998 Batch



2001 batch is felicitating the Director

On December 23, 2023, alumni from 2001 batch visited the campus. They held a stage function and felicitated their faculty members. Besides, they also assured of contributing to the alma mater in various possible ways.

The Kindle Library, a generous gift from the NITK 1996 alumni batch, is a significant addition to our Central Library. With 15 Kindle devices to kickstart this initiative, our patrons now have access to a vast collection of e-books and digital resources, enabling them to read and learn on-the-go. The establishment of a Kindle Library is a major step forward in providing our patrons with the latest technology and resources to support their learning and growth. This initiative not only keeps our library at the forefront of technology and innovation but also offers a more environmentally friendly alternative to traditional print materials.



### 2003 Batch Reunion

On 23<sup>rd</sup> December 2023, the batch of 2003 visited the campus and went around the campus and expressed their happiness about the research work taken up in the Institute. The batch donated a cheque for Rs. 12,00,000/- to the Institute endowment fund. A few of the retired faculty who taught the batch were felicitated along with the Director and other officials of the Institute.



A Group photograph of 2001 Batch

### NITKconnect '24 Business Summit



The Bangalore Chapter of the NITK Alumni Association organized NITKconnect '24 Business Summit on February 3, 2024 (9AM to 10.30 PM) in Bangalore. The event was one of the Largest NITK Networking Events, attended by numerous NITK Alumni, Entrepreneurs, and Corporate leaders.

### Marelli's CSR initiative

The M/s Marelli (India) Pvt. Ltd. donated Rs.11,78,573/- through CSR Fund for the project proposal entitled "MISRA Count Automation and IMU Algorithm Development".

### IMU Algorithm Development

As per the objective of the Marelli's CSR initiative, the students were exposed to several experiential learning activities related to hardware setup, configuration, prototype design using open-source hardware frameworks, and associated learning framework design for the Automotive industry. Students worked on understanding the hardware infrastructure required for capturing events from the vehicle, designing the model with different sensors, designing a controller for capturing the data from the sensor and for collection of sensor data over an extended period. A machine learning framework was also designed for automatically modeling harsh events for event classification.

### MISRA Count Automation



The students were exposed to several experiential learning activities related to data analysis and software development in the Automotive industry. Students worked on understanding the infrastructure of the server-side setup, device driver support system, analysis of data generated by drivers and generating various analytics of the driver data. A



software application deployed on the cloud was also designed and put in operation.

### M/s Robosoft Technologies Pvt. Ltd CSR initiatives

M/s Robosoft Technologies Pvt. Ltd donated Rs.17,70,000/- through CSR Fund for the project proposal entitled “Freelance Platform built on Blockchain in any Educational Institute in India”. This is proposed to release the fund to the respective faculty to execute the project.

The aim of this project is to create a freelance marketplace built on Web 3.0 technology where students and companies can connect and interact directly for multiple opportunities (projects, internships, jobs).

A freelancer marketplace will be built using public blockchain technology, where stakeholders are students and hiring companies. Students can register in this marketplace free of cost and showcase their skills and abilities in different domains. They can also provide authorized proof of such skills gained through online courses in the form of digital certificates.

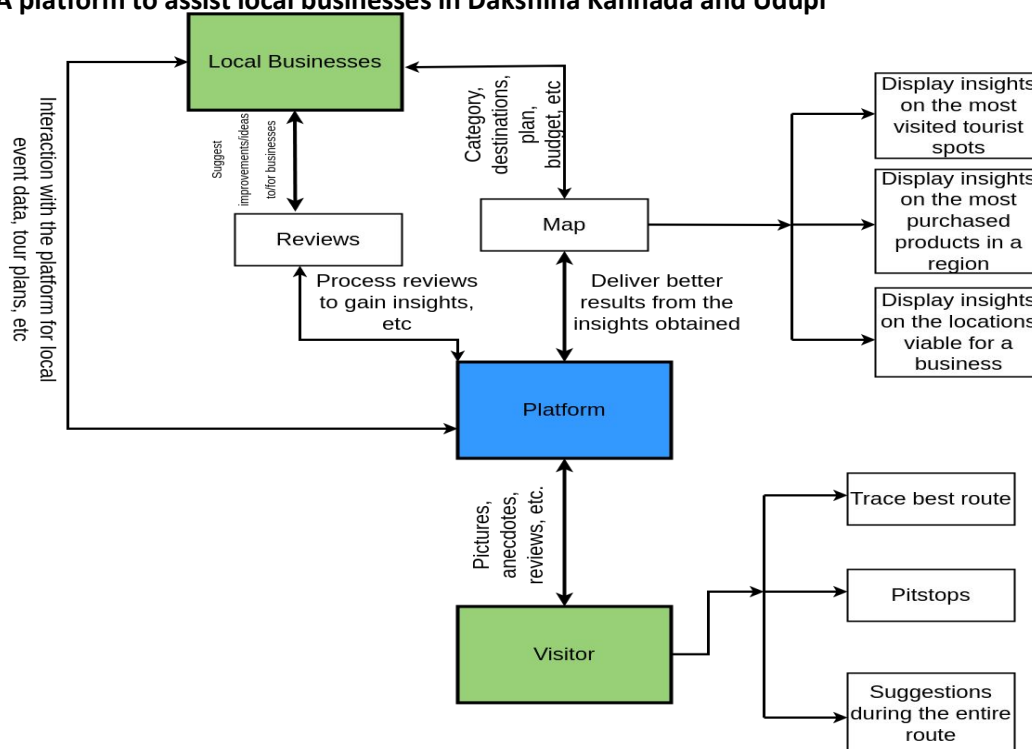
Companies who want to hire students for a job or offer internships for a specific domain that requires some eligibility criteria can accomplish this using Freelancer Marketplace. There will be an AI/ML recommendation model that will take input as requirements for the specific role from companies and collect students' data from the blockchain. As an output, this model will send the recommendation to the concerned companies regarding potential students that will be the best fit for the provided role.

Students will act as a client of the system, whereas companies will be a member of the blockchain network. Here companies will directly participate in the consensus protocol agreed upon by them. A consensus protocol will be used to establish trust among the companies. Moreover, the user will have full control of their data.

### M/s Robosoft Technologies Pvt. Ltd CSR initiatives

M/s Robosoft Technologies Pvt. Ltd. donated Rs. 34,60,000/- through CSR Fund for the project proposal entitled “Solmelu”.

**Solmelu: A platform to assist local businesses in Dakshina Kannada and Udupi**



High-level System Design



### KREC Batch of 1973 Donates Tennis Court to NITK Surathkal

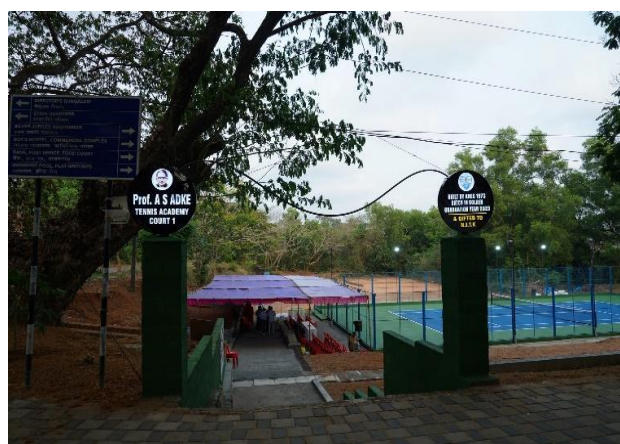


Inaugural ceremony of the Tennis court

Prof. B Ravi expressed his gratitude, stating “this generous contribution from the KREC batch of 1973 not only enriches our sports facilities but also serves as an inspiration for our students. The dedication and commitment shown by the entire batch of 1973 is a shining example of the spirit of giving back to the institution. This state-of-the-art tennis court will not only foster the sporting talents of our students but also instil in them the values of perseverance, teamwork, and dedication.”

The inaugural ceremony took place on 27th March 2024 at NITK Surathkal. The tennis court was constructed to International Tennis Federation (ITF) standards using synthetic materials.

The event was presided over by Prof. B Ravi, the esteemed Director of NITK. Prof. Udaykumar Yaragatti was the chief guest for the occasion. Prof. Shrikantha S Rao, the Dean of Alumni and Corporate Relations, along with the distinguished alumni of the 1973 batch, faculty, staff, and students, participated in the event, contributing to its grand success.



### NITK-BEL Physiotherapy Center

Bharat Electronics Limited (BEL), a Navratna PSU under the Ministry of Defence, Govt. of India, has donated medical and physiotherapy equipment to the Health Care Centre (HCC) at the National Institute of Technology Karnataka (NITK), Surathkal, as part of their Corporate Social Responsibility (CSR) activities. The equipment, valued at approximately Rs. 9.54 Lakh, includes an ECG machine, a Thyroid Function Test Analyser, and a range of physiotherapy equipment. This donation is expected to significantly



enhance the quality of medical treatment provided to the NITK community, benefiting around 8000+ people on campus and beyond. The handing over ceremony took place on January 11, 2024, at Digital Library Centre, NITK Surathkal. The esteemed chief guest for the event was Shri. Shrikant Walgad, IAS, Chief Vigilance Officer, BEL, who is an alumnus of KREC/NITK1986 batch. The event was graced by Shri. Shashibhushana H S, DGM of Environmental and Corporate Responsibility, BEL, and Shri Ravikant Nayak, Senior Engineer of CSR.

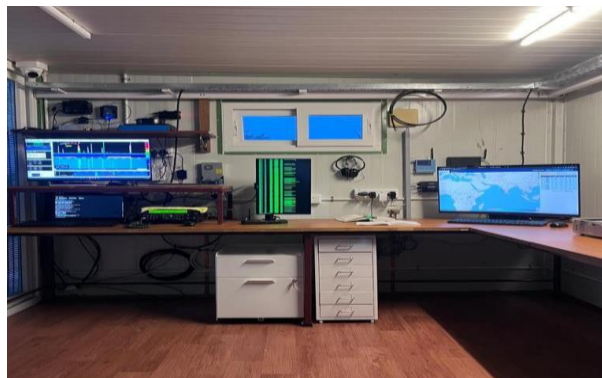


## NITK SEARCH HUB



National Institute of Technology Karnataka (NITK) Surathkal formally launched its new System for Emergency Assistance, Response, and Communication Hub (SEARCH) facility comprising cutting edge communication devices, and autonomous aerial and marine vehicles, on December 11. SEARCH is a temporary transdisciplinary laboratory, close to the beach that not only provides experiential learning for students, but is also useful to the society at large in times of disaster management and other

operations on rivers and sea. It has systems to monitor movement of ships and flights in a radius of 400 km (250 miles). The communication hub is connected to autonomously-designed drones (4), two kayaks, a two-seater and a four-seater boat, and a aerial vehicle. The project was generously funded Sri. Yajnanarayana Kammaje, Chairman of the Sona Group and NITK alumnus (class of 1971), NITK alumni Sri Rangan Ramasamy, Sri. Ram Bhandare, Sri. A.S. Karanth and Sri. Shrikanth Bhat.



## World Bicycle Day Celebration



In alignment with the directive from the Ministry of Health and Family Welfare (MoHFW) to promote physical activity on World Bicycle Day, the National Institute of Technology Karnataka, Surathkal organized a vibrant cycling event on May 3, 2023, starting at 7:00 am. Attended by 200 students, faculty, staff, and administrative heads, the event began

with an inauguration by Prof. Narendranath S, Dean of Student Welfare, and Sri. Ravindranath K., the Registrar. Participants enjoyed a scenic 6-kilometer cycling route within the campus, followed by refreshing refreshments to conclude the event.



Inauguration of World Bicycle Day

## Ring Presentation Ceremony 2023



The Ring Presentation Ceremony stands as a cherished tradition unique to NITK Surathkal, unparalleled in the annals of Indian educational institutions. Each graduating student receives a distinctive Silver Ring adorned with the NITK emblem and the year of graduation—a symbol of their enduring bond with their Alma Mater. This tradition not only symbolizes the union between student and institution but also fosters a sense of kinship among KRECians/NITKians

worldwide. The ceremony, held on April 20, 2023, at 5:30 pm in the New Sports Complex Ground, was graced by esteemed individuals including Sona Group of Industries Managing Director Yajnanarayana Kammaje, Youth for Seva Founder and Chief Mentor Venkatesha Murthy, NITK Director (Additional Charge) Prasad Krishna, Registrar K. Ravindranath, and Dean-Alumni Affairs Shrikantha S. Rao.



Inauguration by Lighting the lamp. Invocation by Ms. Shree Ranjitha & Ms. Ojusvi

## Yuva Sangam Phase - 2

As a vital component of the Ek Bharat Shrestha Bharat Program, Yuva Sangam Phase-2 was meticulously orchestrated to foster the exchange of ideas and cultures among students hailing from diverse states across India. Aligned with the Ek Bharat Shreshtha Bharat initiative, Karnataka and Madhya Pradesh (MP) were paired to facilitate this enriching exchange.

A cohort of 39 students from Karnataka, representing institutions including NITK and other colleges, embarked on a transformative journey to MANIT Bhopal. They were greeted with open arms by the enthusiastic staff and students of MANIT. The itinerary was replete with immersive experiences, including visits to cultural landmarks such as museums, the Indira Gandhi Manav



Karnataka Team Planting Sampling with honorable CM of MP



Karnataka Students with Honorable Governor of MP

Sangralaya, Birla temple, and significant engagements like a plantation event with the Chief Minister (CM) and a meeting with the Governor. Additionally, they explored initiatives focused on sustainability, such as the Waste Management Centre and the Integrated Command Control Centre. The trip also included visits to iconic sites like the Sanchi Stupa and the Bhojpur Temple, offering students a holistic cultural immersion and fostering lasting bonds between the two states.



Karnataka Delegates at MP's Governor Office



### Yuva Sangam Exchange - MANIT Bhopal visits NITK Surathkal

In adherence to the Government's Cultural and Educational Programme, the second phase of Ek Bharat Shrestha Bharat saw the vibrant exchange of 45 students accompanied by 4 esteemed faculty members from MANIT Bhopal, who graced NITK Surathkal with their presence from May 11th to May 17th, 2023. The delegation received a warm welcome from the Director, Dean of Student Welfare, and Registrar upon their arrival. Under the thoughtful guidance of NITK staff, the visiting students embarked on a journey exploring the rich cultural tapestry of the region, visiting revered temples like the Jain Temple,



MP delegates at Sringeri Temple



MP Students Attending Technical Session at NITK

Udupi Matha, and Sringeri Temple, as well as enjoying the serene beaches and the natural beauty of Pilikula Nisarga Dhama.

An engaging interaction session, led by Prof. Arun Isloor, provided an invaluable platform for intellectual exchange and camaraderie between the students of MANIT and their counterparts at NITK, fostering meaningful connections and broadening horizons.

### 9th International Day of Yoga Celebration (IDYC)

On June 21st, 2023, NITK Surathkal celebrated the 9th International Day of Yoga with fervor and zeal in the serene ambiance of the Yoga Hall within the New Sports Complex. A mass demonstration of the Common Yoga Protocol ensued, reflecting the collective enthusiasm and dedication of approximately 300 participants, including faculty, staff members, students, and research scholars. The event, meticulously coordinated by the Office of the Dean of Student Welfare, commenced with a warm welcome address by the Dean himself.

Prof. B Ravi, Director of NITK, graced the gathering with his insightful discourse on the manifold benefits of yoga, inspiring attendees to embrace this ancient practice for holistic well-being. Renowned Yoga Guru Shri. Radhesh Mohandas took center stage, demonstrating various yogic postures and pranayamas as prescribed by the Ministry of AYUSH and Ministry of Education, Government of India. With clarity and expertise, he elucidated the physiological and psychological benefits of each asana and pranayama, catering to diverse needs and promoting a holistic approach to wellness.



International Day of Yoga 2023



Yoga performance by students and faculty of NITK on IDYC

The session, spanning nearly two hours, provided participants with a rejuvenating experience, leaving them feeling relaxed and revitalized. The serene ambiance was further accentuated by the chanting of the Shanti Mantra and a concluding meditation, fostering a sense of inner peace and tranquility among all present. This celebration of yoga not only underscored its significance in combating modern-day stressors but also reaffirmed its timeless relevance in promoting physical, mental, and spiritual well-being.

### Orientation Programme for First-Year Students – 2023



Inauguration of Orientation Programme

Our Director, Prof. B Ravi, Student Welfare Prof. A.C. Hegde, Dean Faculty Welfare Prof. G.C Mohan Kumar, alongside other Deans, Administrative officers, Faculty staff, Students, and their parents. In his address, Director Prof. B Ravi congratulated the students on their achievements and underscored the Institute's commitment to academic excellence. He encouraged students to strive for greatness in their respective fields and provided insights into the Institute's ethos and aspirations.

From August 21<sup>st</sup> to August 26<sup>th</sup>, 2023, NITK Surathkal conducted its comprehensive Orientation Programme for incoming first-year B.Tech. and M. Tech. students at the esteemed Silver Jubilee Auditorium (SJA) of the Institute. Designed to acquaint newcomers with the academic and administrative facets of NITK, as well as the vibrant campus culture and facilities, this programme set the stage for a fulfilling academic journey.

The inaugural ceremony was graced by esteemed dignitaries including



Address by the Director Prof B Ravi



Address by Prof A.C. Hegde, Dean (SW)

Student Welfare Prof. A.C. Hegde further illuminated the students about the Institute's vision, mission, and the myriad clubs, societies, and activities available for their holistic development. The orientation programme encompassed sessions on various crucial aspects, including the academic curriculum, extracurricular and co-curricular activities, examination procedures, library resources, hostel amenities, health and wellness initiatives, sports and cultural engagements, anti-ragging measures, and the student

grievance redressal mechanism.

Furthermore, the programme facilitated invaluable interactions between students and their seniors, mentors, and faculty members, fostering a sense of belonging and camaraderie within the NITK community. It is our earnest belief that this orientation programme will equip students with the requisite knowledge and confidence to navigate their academic journey at NITK successfully, enriching their lives and contributing to the vibrancy of our institution.



First Year Students



## IEEE NITK Club Events

### Praelium - Competitive Programming Contest



Praelium, a hallmark event of IEEE NITK, unfolded on October 7th, 2023, offering participants a riveting simulation akin to the renowned IEEEExtreme contest. Held at the CCC, NITK, this competitive programming contest spanned over 2 hours (with an extension of 45 mins), challenging participants with 5 intricate questions to solve on Hackerrank. The event garnered overwhelming participation, with approximately 680 individuals from colleges across the nation showcasing their programming prowess and strategic acumen.

### IAS SRFP Talk by IEEE NITK

The IAS SRFP Talk, hosted by IEEE NITK, provided valuable insights into the Summer Research Fellowship Program (SRFP) facilitated by the Indian Academy of Sciences (IAS). Esteemed speakers, including Vartika T Rao, Gaurangee Parashar, Venugopal R, Calvin Fernandez, and N Karthik Karanth—members of the IEEE executive team—shared their enriching experiences with the summer internship program. Delving into various facets, they elucidated on application requirements and navigational tips. Held at the ISTE Seminar Hall on October 9th, the event attracted a diverse audience of over 60 attendees, fostering awareness and interest in research opportunities among the NITK community.



**The Apache Workshop:** - Spearheaded by Mr. Aditya Sharma, Chapter Lead of ALC Indore, the Workshop unfolded as a dynamic virtual event on MSTeams, captivating audiences on October 28th at 5 pm. Organized under the aegis of the CIS (Computational Intelligence Society) Chapter of IEEE NIT, the workshop attracted 67 enthusiastic participants from diverse colleges.

With a comprehensive agenda, the speaker delved into illuminating insights about the Apache Software Foundation, elucidating its organizational structure, expansive project ecosystem, and avenues for active participation and contribution. Emphasizing opportunities like the Google Summer of Code (GSoC), attendees gained valuable insights into leveraging their skills to contribute meaningfully to the foundation's endeavors. This engaging session not only enhanced participants' understanding of Apache technologies but also inspired them to explore avenues for professional growth and collaboration within the global open-source community.

### GitHub KSS by Diode SIG

A Knowledge Sharing Session (KSS) on "Introduction to Git and GitHub" unfolded on November 3rd at LHC-A, NITK, curated exclusively for the members of Diode SIG within IEEE NITK. Tailored to address the project requisites of 3rd-year executive members, this enlightening session featured Raghuram Kannan, a proficient fourth-year ECE student, as the keynote speaker.

With an emphasis on interactivity, Raghuram Kannan guided approximately 20 attentive students through the nuances of Git workflow and the setup of SSH. This session not only demystified the fundamentals of version control but also empowered participants with practical insights into leveraging Git and GitHub for seamless project management and collaboration. Through this knowledge-sharing initiative, Diode SIG continues to foster a culture of continuous learning and skill development among its members, equipping them with the tools and techniques essential for success in their academic and professional endeavors.

### **Eureka: IEEE NITK's Annual Freshers' Event**

Eureka stands as IEEE NITK's much-anticipated annual freshers' event, offering first-year students a delightful introduction to the club and its vibrant array of activities. This engaging event, held between November 13th and 18th, serves as a gateway for newcomers to immerse themselves in the IEEE NITK community and discover its myriad offerings.

Organized by the enthusiastic second-year students of the three Special Interest Groups (SIGs), Eureka 2023 featured an eclectic mix of nine unique activities, each tailored to align with the SIGs' areas of interest. From captivating Knowledge Sharing Sessions (KSS) to spirited competitions infused with fun twists, such as quizzes and challenges, participants were treated to a dynamic showcase of IEEE NITK's diverse portfolio.

With participation ranging from 60 to 110 attendees for each event, Eureka 2023 succeeded in fostering camaraderie, enthusiasm, and a sense of belonging among the freshers, setting the stage for an enriching journey within IEEE NITK. As a cherished tradition, Eureka continues to serve as a cornerstone event, embodying the spirit of innovation, collaboration, and camaraderie that defines IEEE NITK's vibrant community.

### **Research Rehashed 2023: Bridging Theory and Practice**

Research Rehashed 2023 epitomized the convergence of theoretical research and practical application, fostering innovation by challenging participants to translate academic papers into real-world solutions. Spanning from October 28th to November 25th, this dynamic event aimed to bridge the gap between abstract concepts and tangible outcomes across diverse domains.

With an impressive turnout of 162 participants forming 70 teams, Research Rehashed provided a platform for aspiring researchers to delve into papers from nine distinct domains: Security, Reinforcement Learning, Natural Language Processing (NLP), Networks, Computer Vision, Cloud Computing, Classical Machine Learning, Blockchain and Cryptography, and Algorithms. Each team selected a paper from their domain of interest, embarking on a journey to reimagine theoretical constructs into practical implementations.

Through this innovative initiative, participants not only gained hands-on experience in research methodology but also honed their problem-solving skills and critical thinking abilities. By fostering collaboration and interdisciplinary dialogue, Research Rehashed empowered participants to drive meaningful advancements in their respective fields, propelling the boundaries of knowledge and innovation. As a testament to its success, Research Rehashed continues to inspire a new generation of researchers to translate academic insights into impactful real-world solutions.

### **Perspectives from a "Woman in Tech" Talk**

Featuring alumna Smita Nath, a Principal Software Engineer at Cisco Systems, the hybrid event offered insights into her 23-year journey in technology. Held on December 8th at the CSE Seminar Hall, Smita shared expertise in networking protocols and system design, emphasizing both technical prowess and essential soft

skills for career success. Attendees gained valuable perspectives on navigating the tech industry, inspiring them to chart their paths to success.

### **AI Vision Cup**

The AI Vision Cup, spanning a week, featured three Kaggle Contests exploring diverse Computer Vision concepts. Utilizing a WhatsApp community with over 310 participants, problem statements were disseminated, and task-specific groups facilitated query resolution. Contest topics encompassed Defect Detection in Manufacturing Processes, Medical Image Segmentation for Tumor Detection, and Object Detection in High-Resolution Satellite Imagery.

A Knowledge Sharing Session on Introduction to OpenCV complemented the competition, introducing Computer Vision concepts with a focus on OpenCV applications. Pranav Durai, a Computer Vision Engineer at OpenCV and researcher at Stanford University, led this session. Participants engaged in hands-on learning with the OpenCV library in JupyterLab, enhancing their practical understanding of Computer Vision applications.

### **Robotrix '24: Fostering Robotics Enthusiasm**

Robotrix '24, the flagship event organized by the Robotics and Automation Society (InterSIG) of IEEE NITK, aimed to ignite a passion for robotics among first and second-year undergraduate students nationwide. Spanning seventeen days from February 24th to March 12th, 2024, the event comprised expert talks, workshops, assignments, and a thrilling final hackathon.

The event unfolded in four phases:

- Preliminary Round: Conducted on HackerEarth on January 26th, 2024, the round tested participants on aptitude and Python programming skills.
- Expert Talk: On January 24th, 2024, Mr. Abin Alex Pothan delivered a webinar titled 'Exploring Robotics: From Problem to Solution' via Google Meet, offering valuable insights into the realm of robotics.
- Workshops: Two technical workshops were conducted online via Google Meet. The first, 'Introduction to Coppeliassim Simulation' by Akhil Guddati on February 27th, 2024, and the second, 'Introduction to Control Systems' by Joel Jojo Painuthara on March 7th, 2024, equipped participants with essential skills and knowledge.
- Final Hackathon: Thirty-nine shortlisted teams from the preliminary round engaged in a rigorous 48-hour hackathon from March 10th to 12th, 2024. Participants had access to a forum for doubt clarification, resulting in five submissions. Prizes were awarded to the top two teams, while certificates were distributed to all final hackathon participants.
- Robotrix '24 not only provided a platform for learning and skill development but also fostered a spirit of innovation and collaboration among aspiring roboticists.

### **ROTARACT NITK Club Events**

#### **Menstrual Health Talk by Rotaract NITK**

Rotaract NITK organized a vital Menstrual Health Talk at the Kannada Medium School on September 15th and 16th, 2023, addressing girl students from classes 6 to 8. Dr. Sangeeta K and Dr. Sharvari Narayan delivered informative sessions, shedding light on the intricacies of the menstrual cycle and related aspects. In addition to the educational talks, Rotaract NITK demonstrated its commitment to menstrual health by providing the school with reusable pads valued at Rs. 4200. These pads will be distributed to the students, ensuring access to sustainable menstrual hygiene products, and promoting their well-being.

### Coast to Coast 2.0 Clean-up Drive

In collaboration with Rotary Surathkal, our members enthusiastically participated in Coast to Coast 2.0, a community-driven initiative. The clean-up drive took place at Surathkal Iddya Beach on October 2nd, providing a platform for our members to contribute to environmental conservation efforts.

Beyond the clean-up activities, this event facilitated meaningful interactions between our Rotaractors and members from other participating organizations. It served as a valuable opportunity to forge connections, share experiences, and collectively work towards a cleaner and healthier environment.



### Installation and Induction Ceremony

The Installation and Induction Ceremony for the academic year 2023-24 took place on November 21st, marking a significant milestone for our Rotaract community. District Rotarians presided over the ceremony, overseeing the installation of new office bearers and the induction of fresh Rotaract members for the ongoing academic year.



overseeing the installation of new office bearers and the induction of fresh Rotaract members for the ongoing academic year.

This ceremonial occasion not only symbolized the transfer of responsibilities to new leadership but also heralded the welcoming of new members into our Rotaract family. It served as a moment of pride and camaraderie, reinforcing our commitment to service and community engagement as we embarked on a new chapter of impact and growth.

Address by the Director of Youth Services – Rotaract

### One Last Time Series

Collaborating with five other clubs from the college, namely IEEE, ISTE, ACM, IE, and IET, the One Last Time Series was conducted over three days from June 16th to 18th, 2023. The talk show featured valuable guidance from alumni, including Aditya Raghu, who shared insights into the application process and preparation methods for pursuing a master's. The event was conducted online, providing juniors with valuable information and advice for their academic and career endeavors.

### Rakhi Sale

On August 29th, 2023, one day before Raksha Bandhan, NITK organized a Rakhi Sale event where students had the opportunity to purchase Rakhis made by the children of Lions Special School, Surathkal. The event aimed to support the special children and their school. With sales totaling about Rs. 8500, the entire amount was donated to the school to meet



Students Selling Rakhis to Generate Funds for a Noble Cause.



the needs of these children, fostering a spirit of generosity and community support.

### NITK Film Club Events

#### NITK Film Festival 2023

The NITK Film Festival 2023, held from November 16th to November 19th, kicked off with a memorable inauguration by the renowned filmmaker Srihar Rangayan. His esteemed presence added a touch of prestige to the event, setting the stage for an enriching cinematic experience.

Following the inauguration, attendees had the unique opportunity to engage in an interactive session with



Inauguration of the Film Festival 2023

Srihar Rangayan. His insights and experiences offered invaluable guidance to budding cinema enthusiasts, providing them with a glimpse into the intricacies of the film industry and inspiring them to pursue their passion for storytelling through cinema.

### Competitions at NITK Film Festival 2023

#### **a) Short Movie Competition (November 15th, 2023):**

Students showcased their creativity in the Short Movie Competition, where groups of up to six members were invited to submit their original short films. With artistic freedom granted to choose themes and languages, participants crafted compelling narratives within a 15-minute limit. Subtitles were mandatory, and entries were required to be free from explicit content. A prize pool of Rs.10,000 awaited the winners, incentivizing innovation and storytelling prowess.

#### **b) Poster Making Competition (November 13th, 2023):**

In the Poster Making Competition, students unleashed their artistic talents by creating captivating movie or anime posters. Participants were encouraged to explore themes and styles of their choice, allowing for diverse interpretations and expressions. Each student could submit up to three entries, competing for a prize pool of Rs.3000 and showcasing their creativity in visual storytelling.

Additionally, the Films Club curated a rich cinematic experience by telecasting a diverse array of movies, including "Jai Bhim," "Three of Us" (Hindi), "777 Charlie" (Kannada), "Vaathi" (Tamil), "Mahanati" (Telugu), "Dear Bhargava," and a screening of the documentary "Rani Abbakka." These screenings provided audiences with a cultural and cinematic journey, enriching the NITK Film Festival with diverse narratives and perspectives.

## Kannada Vedike Club Activities

### Geeta Gayana

The Kannada Vedike Club celebrated Karnataka's rich heritage and culture through Geeta Gayana, an event initiated by the Karnataka government. Held in the Pavilion on November 1st, 2023, at 10:00 am, the event witnessed enthusiastic participation from over 250 individuals, including esteemed faculty members such as Prof. Ravi (Director), Prof. A.C. Hegde (Dean of Student Welfare), and Dr. Raviraj H M (Faculty Advisor of Kannada Vedike NITK), alongside other NITK faculty members.

Geeta Gayana served as a unifying platform for participants to come together and immerse themselves in the melodious renditions of various Kannada songs.



Website Launch by Kannada Vedike

On November 1st, 2023, Kannada Vedike marked a significant milestone with the launch of its official website. The ceremony took place at 5:00 pm in the main building, graced by the esteemed presence of Prof. B Ravi (Director).

The launch of the website symbolized Kannada Vedike's commitment to promoting Kannada language and culture, providing a digital platform to showcase its activities and initiatives. With this new online presence, Kannada Vedike aims to reach a wider audience and foster greater engagement with its mission and vision.

The website launch event served as a momentous occasion, highlighting the dedication and efforts of Kannada Vedike in promoting and preserving Karnataka's rich linguistic and cultural heritage.

### Inauguration and Flash Mob by Kannada Vedike

On November 1st, 2023, at 5:30 pm, Kannada Vedike commenced its Parva Week with a grand inauguration and logo launch. The ceremony, held with much anticipation, was graced by esteemed dignitaries including Prof. B Ravi (Director), Prof. A.C. Hegde (Dean of Student Welfare), and Dr. Raviraj H M (Faculty Advisor of Kannada Vedike NITK).

The event began with the unveiling of the Parva Week and the official logo by the distinguished guests, symbolizing the commencement of a week-long celebration of Kannada culture and heritage. Following the inauguration, the atmosphere was electrified by a vibrant Flash Mob performed by Kannada Vedike students. Enthusiastically dancing to the tunes of Kannada songs, the Flash Mob added a burst of energy and excitement to the event, captivating the audience and fostering a sense of pride in Karnataka's rich cultural traditions.



Showing a glimpse of Flash Mob

### Sobagu: Celebrating Ethnic Diversity

Sobagu, the ethnic day celebration, unfolded on November 7th, 2023, at the Pavilion. Commencing at 11:00 am and extending throughout the day, Sobagu invited students to showcase the rich tapestry of regional traditional attire.

With footfall exceeding 700 by 6:00 pm, the event buzzed with excitement and cultural vibrancy. The Pavilion transformed into



Showing a glimpse of Sobagu at pavilion

a hub of diversity, as students proudly displayed their

heritage through traditional clothing from various regions.

An open stage provided a platform for captivating performances, including dance routines and soulful song renditions, adding to the festive ambiance. Through Sobagu, students came together to celebrate the beauty of diversity, fostering cultural exchange and mutual appreciation within the NITK community.



### Literary Events Extravaganza

On November 7th, alongside the vibrant celebrations of Sobagu, a series of engaging literary events unfolded in the Seminar Hall of the Main Building. Quiz competitions, Antyakshari contests, and Dumb Charades captivated participants and spectators alike.

With over 15 teams, each comprising approximately 5 members, competing in each event, the atmosphere was charged with intellectual energy and camaraderie. Participants showcased their knowledge, creativity, and quick thinking, making the literary events a resounding success.

While the winners were decided on the day of the competitions, their accolades were formally presented during the main cultural program on November 9th, 2023. These literary events not only provided entertainment but also fostered a spirit of healthy competition and intellectual engagement within the NITK community.

### Music Night Extravaganza

On the enchanting evening of November 8th, 2023, the melodious strains of Kannada music filled the Silver Jubilee Auditorium (SJA) as the Musical Club NITK and "Pranathi Rao" graced the stage for a captivating music concert. This musical extravaganza, organized exclusively for the students and faculty of NITK, was a delightful treat for all attendees.

From 6:00 pm to 8:00 pm, attendees were treated to a mesmerizing array of Kannada songs, each showcasing the beauty and cultural richness of the language and the state. The talented singers, backed by the Musical Club NITK, delivered soul-stirring performances that left the audience spellbound.







Music Night by The Music club of NITK

With an estimated footfall of over 1500, including both students and staff, the Music Night created an unforgettable ambiance of harmony and joy. It was an evening of celebration and camaraderie, uniting the NITK community through the universal language of music.

### Stand-up Comedy Show

The evening of November 8th, 2023, witnessed uproarious laughter and endless chuckles as Nithin Kamath took the stage for a side-splitting stand-up comedy show at the Silver Jubilee Auditorium (SJA). This rib-tickling event, organized exclusively for the students and faculty of NITK, promised an hour of non-stop entertainment. From 9:00 pm to 10:00 pm, Nithin Kamath regaled the audience with his witty observations, hilarious anecdotes, and razor-sharp humor. The free-of-cost event attracted a diverse crowd, with an estimated footfall of over 1500 students and staff members.

The stand-up comedy show provided a welcome break from academic rigors, fostering an atmosphere of mirth and camaraderie within the NITK community. It was an evening filled with laughter, joy, and unforgettable memories for all in attendance.

### School Visit by Kannada Vedike

On November 9th, the Kannada Vedike team embarked on a heartwarming visit to the NITK Kannada Medium School, spreading smiles and joy among the students. The visit was marked by a series of fun-filled events and games, carefully curated to engage and entertain the young minds. From exciting games to interactive activities, the Kannada Vedike team ensured a memorable experience for the students of the



Kannada Medium School. The visit not

only brought moments of laughter and camaraderie but also strengthened the bond between NITK and its local community. Through this initiative, Kannada Vedike reaffirmed its commitment to promoting Kannada language and culture while fostering meaningful connections with the future generation. It was a day filled with laughter, learning, and shared moments of joy for all involved.



### Procession of Kannadambe: Celebrating Kannada Rajyotsava

In honor of Kannada Rajyotsava, the procession of Kannadambe commenced with solemn reverence as the chief guest and guest of honor laid wreaths of flowers at the portrait of Kannadambe near the main gate of NITK. This symbolic gesture marked the beginning of a cherished tradition, symbolizing the

worship of the goddess Kannadambe. The procession, a vibrant manifestation of cultural pride, wound its way from the main gate, passing by the mechanical building and the Adke circle before culminating at the Silver Jubilee Auditorium (SJA). Along the route, participants adorned in traditional attire, carrying banners and flags, infused the air with jubilant chants and fervent devotion.

The procession of Kannadambe served as a poignant tribute to Karnataka's rich heritage and linguistic identity, uniting the NITK community in celebration and reverence for the beloved goddess Kannadambe. It was a testament to the enduring spirit of Karnataka and its people, resonating with pride and tradition.



### Cultural Extravaganza: Celebrating Karnataka's Heritage

Following the procession, the Silver Jubilee Auditorium (SJA) came alive with a vibrant Cultural Event, capturing the essence of Karnataka's rich heritage and traditions. The event commenced with insightful speeches by esteemed dignitaries, including Chief Guest Bhuvaneshwari Hedge, Guest of Honor Nivedan Nempe, and Special Invitee Shri Harsha, setting the stage for an evening of cultural immersion.

The highlight of the evening was a mesmerizing live music performance by the "Shree Sharada Blind Music Association," captivating the audience with their soulful melodies. The cultural extravaganza continued with a captivating Yakshagana performance, three enchanting dance routines, and two captivating singing performances, showcasing the diverse talent within the NITK community.



Glimpses of the Cultural Event "Parva"

Adding to the merriment, a comedy sketch brought laughter and joy to the audience, further enlivening the atmosphere. The event culminated with a heartfelt vote of thanks extended to the guests of honor, professors, and all students and staff for their participation and support.

The Cultural Event served as a fitting tribute to Karnataka's rich cultural heritage, fostering a sense of pride and unity among the NITK community as they celebrated their shared roots and traditions.

### Music Club's Event Highlights

The Music Club orchestrated three unforgettable Music Nights—Overture, Unplugged, and Reminiscence—that resonated with melody and harmony throughout the academic year 2023-24. A significant milestone was achieved as the NITK Music Club graced the Pro Show Stage on Incident 2024, Day 0, marking a momentous occasion in their journey.



### **Overture (Music Night 1) - September 14th, 2023**

The inaugural Music Night, Overture, set the stage for an unforgettable musical experience at the Silver Jubilee Auditorium (SJA). The event garnered immense enthusiasm, with the venue brimming to capacity within minutes of the event's commencement. Despite the SJA's capacity of 1,100, the footfall exceeded 1,500, showcasing the overwhelming support from the audience.

As melodies filled the air, the audience was enraptured by the captivating performances, with one standout moment being the rendition of "Roja" by A.R. Rahman. Bhimu D, Rian Pinto, Abhinav Raghunandan, Nihal Hegde, Venugopal R, and Vaibhav Kumar mesmerized the crowd with their rendition, eliciting cheers and applause that reverberated throughout the auditorium. The success of Overture not only highlighted the talent and dedication of the Music Club members but also reinforced the power of music to unite and uplift spirits. It was a night to remember, filled with moments of joy, camaraderie, and musical magic.



Showcasing the Performance of Music Club Members

### **Crescendo and Sandy Serenade: Engineer 2023 Highlights**

During Engineer 2023, the NITK Music Club showcased their talent and versatility with two remarkable performances—Crescendo and Sandy Serenade—held on October 13th and 15th, 2023, respectively.

#### **Crescendo - October 13th, 2023:**

Crescendo illuminated the Silver Jubilee Auditorium (SJA) with a student band concert, featuring captivating performances by talented club members. Dividing themselves into bands, the musicians delivered an electrifying two-and-a-half-hour set of songs, showcasing their prowess across various musical genres.

Two Western bands, Under Armors and Fruit Punch, enthralled the audience with dynamic renditions of English Rock and Pop classics, while Eastern bands, High Fives and Tandoori Turtles, mesmerized with fusion and rock compositions. The concert was a celebration of musical diversity, uniting the audience in a shared appreciation for both Western and Eastern musical traditions.

#### **Sandy Serenade - October 15th, 2023:**

On October 15th, 2023, Sandy Serenade transported music enthusiasts to the picturesque setting of the beach, where the NITK Music Club delivered an enchanting acoustic performance. Against the backdrop of the ocean waves, club members serenaded the audience with soulful renditions of Bollywood and English songs, creating an atmosphere of tranquility and musical bliss.

Both Crescendo and Sandy Serenade exemplified the Music Club's commitment to delivering exceptional musical experiences, enriching Engineer 2023 with their talent, creativity, and passion for music. It was a testament to the club's dedication to spreading joy and harmony through the universal language of music.

### Music Concert for Kannada Vedike's Parva: NITK Music Club Shines

On November 8th, 2023, the NITK Music Club delivered a captivating music concert as part of Kannada Vedike's Parva event at the Silver Jubilee Auditorium (SJA). Spanning 2.5 hours, from 6:00 pm to 8:30 pm, the concert mesmerized the audience with a diverse repertoire of melodious tunes.

Songs such as "Bombe Heluthaithe," "Santhoshakke," "Varaha Roopam," "Munjaane Manjalli," and "Anisuthide" echoed through the auditorium, evoking nostalgia and stirring emotions among the audience. The club members' exceptional musical prowess and heartfelt performances left a lasting impression on all those in attendance.



Glimpses of the Music Concert

The event witnessed a massive turnout, with enthusiastic participation from the audience throughout the concert. The NITK Music Club's dedication to promoting Kannada culture and music was evident in their stellar performance, earning accolades and appreciation from the audience.

The music concert for Kannada Vedike's Parva was a resounding success, showcasing the Music Club's commitment to spreading joy and celebrating the rich cultural heritage of Karnataka through the universal language of music.

### Unplugged 2024: Musical Diversity Unleashed

Unplugged 2024, held at the Pavilion, NITK on February 3rd, 2024, showcased a rich tapestry of acoustic performances spanning 3.5 hours, from 5:45 pm to 9:15 pm. Members of the Music Club enthralled the audience with captivating renditions in multiple languages and genres, creating an unforgettable musical experience. From Indian classics to English ballads, the event celebrated the universal language of music, forging connections and leaving a lasting impression on all attendees.

### NITK Music Club at Incident 2024 Pro Show



Showing Students' Performance @ Unplugged 2024

On February 29th, 2024, the NITK Music Club made history by performing at the Incident NITK Pro Show for the first time. Their captivating performance, from 8:30 pm to 10:00 pm, marked a grand success, showcasing seamless teamwork between the Incident team and the Music Club.





Glimpses of Pro Show 2024

### Music Events in Incident 2024: March 1st, 2024

On the first day of Incident 2024, the NITK Music Club showcased three exciting events:

- Pulse: A Rock Battle of Bands competition held from 8:00 am to 12:00 pm at SAC.
- Bandish: A Fusion Battle of Bands competition conducted from 1:00 pm to 5:00 pm, also at SAC.
- Raaga Rhapsody: A Solo Singing competition featuring three rounds, held from 5:30 pm to 6:30 pm at LHC-C.



These events brought together talented musicians and vocalists, providing a platform for them to showcase their skills and entertain the audience.



Students Performance @ Incident 2024

### Reminiscence: Music Night 3

The NITK Music Club concluded its series of Music Nights with Reminiscence on March 21st, 2024, from 6:00 pm to 10:00 pm. Held at the backside of the New Sports Complex, this event marked the final Music Night of the year.

Amidst the melodies, faculty members and administrators added to the ambiance, making it a memorable evening filled with music and camaraderie.

### Yoga Club: Empowering Wellness

#### Yoga 101: Introduction to Yoga

Yoga 101, held on January 7th, 2024, provided a comprehensive initiation into yoga, tailored for newcomers eager to explore its benefits. The session focused on foundational yoga postures, offering participants a robust starting point for their practice. Alongside physical postures, attendees delved into discussions on yoga's role in fostering balanced daily living.







Pictures from Introduction to Yoga Session

In addition to Asanas, essential breathing techniques (Pranayamas) and the Surya Namaskara sequence were introduced, enhancing participants' understanding of holistic yoga practices. Yoga 101 served as a gateway for individuals beginning their yoga journey, equipping them with essential tools and knowledge for self-discovery and well-being.

### A Pathway to Inner Peace

Renowned speaker Bejai Kishore Suvarna led an enlightening session on unlocking inner peace at LHC-A Seminar Hall on January 20th, from 6:00 PM to 7:30 PM.

Discussing meditation, mindfulness, and self-care, Suvarna emphasized practical strategies for managing stress in daily life. With around 100 attendees, the event resonated with the community's interest, leaving participants equipped with valuable insights for achieving inner peace.



insights for achieving inner peace

### Yoga Dance at Incident

During "Incident NITK" on March 1st, 2023, the NITK Yoga Club made waves with a mesmerizing Yoga Dance performance. Over 25 enthusiastic first-year students joined forces, blending intricate yoga formations into dynamic dance routines.



The performances, held at two venues - behind the sports



complex and in the basketball court - received overwhelming appreciation from the audience. This fusion of yoga and dance showcased the club's commitment to promoting yoga within the NITK community.

Showcasing the Fusion of Yoga and Dance

### Beach Cleaning Initiative

On March 9th, 2024, the NITK Yoga Club, in collaboration with NSS, led a commendable beach cleaning drive to restore the pristine beauty of NITK shorelines. Recognizing the harmful impact of litter on marine life and water quality, the initiative mobilized club members and volunteers. Equipped with the necessary tools, participants diligently worked from 5 pm to 6:30 pm, clearing debris and raising awareness about preserving coastal ecosystems.

### Coastal Calming Yoga Session

The NITK Yoga Club organized a serene yoga session on the NITK beach on March 10th, 2024, with over 120 participants. Led by Smt. G. Devika Purushothama, an international yoga referee and therapist, the session

was graced by Prof. A.C. Hegde, Dean of Student Welfare, and Dr. V. Murugan, the Yoga Club's Faculty Advisor.

Participants enjoyed an hour of yoga amidst the natural beauty of the beach, catering to all skill levels. The session included basic poses, and breathing exercises, and ended with a peaceful meditation. Attendees appreciated the physical and mental benefits of yoga and expressed gratitude to the organizers and instructor.

### Pictures from Coastal Calming Yoga Session

The event highlighted the Indian government's commitment to promoting yoga for holistic wellness,



exemplified by initiatives like the International Day of Yoga. The Yoga Club pledged to continue organizing such events to foster wellness within the NITK Surathkal community.



### Hakuna Matata: TEDxNITK Event

TEDxNITK organized "Hakuna Matata," inviting attendees to embrace resilience and optimism in the face of adversity. Held on February 2nd at the Student Activity Center (SAC), the event featured inspiring speakers who shared personal anecdotes and strategies for incorporating this Swahili phrase into daily life.

Speakers included Meera Velankar (Cyclist), Gita Balakrishnan (Architect), Rhythm Shaw (Guitarist), Dhyvik G J (CEO of



Inspiring Pedal-Powered Journeys with a Hakuna Matata Mindset



Gita Balakrishnan, Architect Crafting Dreams with a Hakuna Matata Blueprint

Changepay), Gowri Shankar (Wildlife Biologist), Gaurang Sanghvi (Personal finance and Content Creator), and Flexcia D'souza (Digital Creator and Travel Enthusiast). Each speaker highlighted the importance of adopting a Hakuna Matata spirit, encouraging attendees to let go of worries and embrace life's journey with courage and grace.

### INCIDENT 2024

From February 29th to March 3rd, Incident, the Annual Cultural Fest of the National Institute of Technology Karnataka, Surathkal, unfolded with the theme "Stories of the Streets and Beyond." This edition, Incident 2024, delved into the narratives that emerge from journeys beyond conventional boundaries, setting the stage for what promised to be the grandest edition of the fest yet.





Welcome to Incident 2024

### Day 0 at Incident 2024



The festivities kicked off with the official inauguration ceremony at 6 PM, graced by Chief Guest Mr. Mukul Jain, IAS, 2022 batch, who delivered an inspiring address following the ceremonial lighting of the lamp. Motorsport Athlete Ashish Raorane was the esteemed Guest of Honor.



The evening commenced with a captivating classical performance by Sumanth Manjunath, in collaboration with Uthkrishth Bharath. Bringing the curtain down on the Opening Ceremony was a dynamic showcase featuring NITK's Music Club, Dance Dramatics, and Fashion Club, all Lighting up the stage with their unique performances.

Pictures from the Inauguration Ceremony Incident 2024



Incident 2024@Day 0 performances

## Day 1 Highlights at Incident 2024

### Day 1 featured diverse events:

*Inci-Talks:* Engaging discussions.

*Open Mic:* Student talents showcased.

*Musical Competitions:* Bands and solo performers competed.

Additionally, an Auto Expo displayed vintage and modern cars, drawing crowds. Photography and art exhibitions also enthralled attendees.



Incident 2024 @ Day1 Pictures

### Pro-Shows at Incident 2024



"Malhar" by Anand Bhaskar Collective, "Lokada Kalaji," "Gugugudiya," and "Mysore Se Aayi" by The Raghu Dixit Project.

On the first day, the Main Ground hosted electrifying performances by Anand Bhaskar Collective and The Raghu Dixit Project, captivating an audience of approximately 10,000. The bands showcased diverse musical genres, featuring hit songs like "Jaadugari" and



Incident 2024 @ Day 1 Pictures of Anand Bhaskar Collective and Raghu Dixit Project.

## Day 2 Highlights at Incident 2024

Day 2 featured a range of exciting events, including Classical and Western Solo and Group dance competitions, a Bike Stunt Show, Beach Events, a General Quiz, a Cooking without Fire event, and the inaugural World Fest.

The Cooking without Fire event, organized by the Ladies Club of NITK, attracted considerable participation and showcased professional-level culinary skills. Additionally, NCC hosted a Weapon Exhibition, drawing a substantial number of participants to witness the display.







Pictures showing Cooking without Fire, Classical Dance, Weapon Exhibition, Bike Stunts, Fire Games and Tug-of-war

### Second Day of Pro Shows at Incident 2024

The highlight of the second day's Pro Shows was the DJ Night featuring Ravator and Aerreo. With a crowd of



over 8000 students in attendance, the electrifying performance had the audience dancing enthusiastically from start to finish.



Glimpses of Second Day Pro-Show @ Incident 2024

### Day 3 Highlights at Incident 2024

Day 3 of Incident 2024 featured a diverse range of events and competitions, including:

- Jhalak Dikla Ja: A dance competition showcasing talent in various dance forms.
- Andaaz-e-Bayan: A platform for participants to showcase their skills in poetry and storytelling.
- Quiz: An intellectually stimulating competition testing participants' knowledge.
- Nukkad Natak: Street plays addressing social issues and entertaining the audience.
- Inci Talks - Social Nations: Engaging talks discussing various social and global issues.
- Slam Dunk Finals: The finals of the basketball tournament, showcasing the best teams' skills.



- Business events: Competitions and activities related to entrepreneurship and management.

- Gaming events: Competitive gaming tournaments attracting gaming enthusiasts.

- Capture The Flag: A strategic outdoor game promoting teamwork and problem-solving skills.

Overall, Day 3 offered a mix of cultural, intellectual, and sporting events, catering to diverse interests and talents.



Glimpses of Day Three @ Incident 2024

### Pro Shows - Day 3 Highlights at Incident 2024

On the third day of Pro Shows at Incident 2024, the audience witnessed electrifying performances:

- Mayank Maurya and Maadhyam: The night commenced with Bollywood covers by Mayank Maurya and his band Maadhyam. Their repertoire ranged from 90s classics to recent hits, including specially learned Kannada songs for NITK, leaving a lasting impression on the audience.



- Shilpa Rao: The Bollywood Night concluded with a sensational performance by Shilpa Rao, one of Bollywood's rising stars. With over 8000 students in attendance and many more watching remotely, Shilpa Rao and her team delivered a euphoric concert experience. Hits like "Chaleya," "Malang," and "Kaavaalaa" had the audience enthralled, concluding the two-hour concert on a high note.



Following the concert, the atmosphere was vibrant as attendees celebrated and cherished the memorable moments of Incident 2024.

Glimpses of Day Three Pro Shows @ Incident 2024

### Engineer 2023: Technical Symposium at NITK Surathkal

Engineer 2023, the annual technical symposium of the National Institute of Technology Karnataka (NITK) Surathkal, took place from October 12th to October 15th, 2023. The symposium kicked off with a ceremonial inauguration:







- Inauguration Ceremony: The event commenced with the traditional lighting of the lamp, symbolizing the pursuit of knowledge. Distinguished guests including the Director, Prof. B. Ravi B, Prof. A. C. Hegde (Dean Students' Welfare), along with the esteemed chief guest Aprameya Radhakrishna and guest of honor Kalyan Sivasailam graced the occasion, marking the beginning of Engineer 2023.

Inaugural Ceremony the Annual Technical Symposium - Engineer 2023

### Engi'23 Inauguration Day Highlights: -

The inauguration day of Engi' 23 sparked with energy, courtesy of the NITK dance club "Genesis." Their captivating performances, ranging from hip-hop to classical, contemporary, and jazz, set the stage on fire. The day was



brimming with engaging events and workshops, including Robocon



Lab, Project Expo, Hackathon, Engi Talk, Symphony, NITK Racing Workshop, Starry Night, Stars Wars, Gaming Event, Antariksh Project Expo, The Solar Track and many more, providing participants with a diverse range of learning and entertainment opportunities.

Showcasing a few activities of Engi' 23

### Bharat Darshan 2024: Celebrating India's Diversity

On Republic Day, January 26th, 2024, DDFC proudly presented "Bharat Darshan," a vibrant extravaganza celebrating the cultural diversity of India. This event served as a platform for students to showcase the rich heritage of their respective states. With enthusiastic participation from teams representing



multiple states, the audience was treated to a spectacle of



captivating dance performances, melodious songs, and rich cultural displays. Bharat Darshan was a colorful tapestry of India's cultural mosaic, leaving the audience mesmerized and proud of the country's diverse traditions.

Glimpses of Bharat Darshan

### Artists' Forum NITK: Fostering Creativity and Diversity

Artists' Forum NITK is a dynamic club dedicated to promoting inclusivity and diversity through art. Throughout the academic year, the club hosts a range of engaging activities, from workshops to exhibitions, enriching the creative spirit of its members.



Among its notable events are the decorations for Engineer and Incident, two of the institute's flagship festivals. These initiatives infuse artistic flair into the campus ambiance, enhancing the festival experience for all. The club's flagship event, Udaan, is a vibrant kite-flying festival held annually on the picturesque NITK beach. This event not only celebrates the joy of kite flying but also fosters community spirit among participants.

Moreover, the Artists' Forum undertakes a significant project each year, transforming a location on the NITK campus into a captivating art installation. This initiative showcases the members' talent and creativity while adding aesthetic value to the campus environment.

Through its diverse range of activities and projects, Artists' Forum NITK continues to inspire and empower its members to explore and express their artistic passions.

### **Origami Workshop: Unleashing Creativity**

An Origami Workshop was organized during the summer break on May 6, 2023, for the children of NITK faculty members. Attendees, aged 3 to 12 years, were provided with colored square papers and guided through simple Origami creations step by step.



The workshop aimed to foster creativity and dexterity among the children, ensuring that the difficulty level of the creations remained accessible to all participants. By the end of the session, everyone experienced a sense of accomplishment, having crafted their own unique Origami pieces.



Children Experiencing a Sense of Accomplishment Through Guided Origami Workshop

### **Dreamscape Workshop: Crafting Dreams**

Artists' Forum NITK organized a captivating dreamcatcher workshop, a prelude to ArtBeat, on November 8, 2023. The event was a delightful experience where senior students of the Artists' Forum guided first-year students in the art of making dreamcatchers.

Participants not only learned the intricate process of crafting dreamcatchers but also forged new friendships with fellow students and seniors. The workshop fostered creativity and camaraderie, providing a memorable experience for all involved.



Glimpse of the Dreamscape Workshop

### **ArtBeat: Embracing Creativity and Camaraderie**

ArtBeat, the annual extravaganza hosted by Artists' Forum, unfolded its vibrant canvas on November 9th, 2023, at the NITK pavilion. Designed exclusively for first-year students, ArtBeat served as a gateway to acquaint them with the club, their peers, college culture, and seniors through a tapestry of interactive sessions, workshops, and games.

The event embraced a whimsical fair theme, inviting teams of five to partake in a diverse array of games. From classic carnival attractions like ping pong ball toss to innovative activities such as drawing-based twists on telephone games and "guess the famous person," ArtBeat offered a delightful blend of fun and creativity.

To add to the excitement, a leaderboard was introduced, allowing teams to leave their mark by completing all tasks and leaving their handprints—a symbol of accomplishment and unity.

Accompanied by lively music, ArtBeat fostered a vibrant atmosphere, ensuring an engaging and unforgettable experience for all participants. Through this event, first-year students not only immersed themselves in the club's spirit but also forged lasting connections and created cherished memories with their peers and seniors.

### UDAAN 2024: Soaring High on Makar Sankranti

Artists' Forum's flagship event, UDAAN, took flight on January 14th, commemorating the joyous occasion of Makar Sankranti at NITK Beach. The event was a vibrant celebration, drawing over 5000 students, professors, and staff of the engineering college.

The day was filled with entertaining competitions like kite flying and sand art, alongside stalls offering tattoo art, mehendi designs, hair braiding, and more. As colorful kites adorned the sky, enthusiastic crowds cheered along the beach, creating a lively atmosphere of



togetherness.

Beyond the sand, games like Tug of War, Limbo, and Twister added to the merriment. Intricate photo booths, showcasing Hawaiian-themed UDAAN letters and picturesque beachscapes, provided perfect backdrops for capturing memories.



A sandcastle competition and kite flying contest added extra excitement, with participants showcasing creativity and skill. Melodious tunes from the Music Club NITK filled the air, further enhancing the festive ambiance.

AAN 2024 was a resounding success, fostering community spirit and celebration, truly embodying the essence of Makar Sankranti.



Scintillating UDAAN Soaring High on Makar Sankranti

### Major Project '24: Transforming E-library Walls

Artists' Forum NITK embarked on a bold creative journey to revitalize the E-library (CRF Side) with captivating murals under the theme "Tech Time and Space." Divided into five panels, each mural intricately weaves together art and technology, inspiring awe, and imagination.

- Space Exploration: An astronaut rides a comet through space, symbolizing boundless exploration and endless possibilities.





- Metaverse Dive: Immersed in the digital realm, a figure enters the metaverse, bridging the gap between reality and virtuality.
- Human-Tech Symbiosis: A poignant scene of AI and human hands touching, highlighting the symbiotic relationship between technology and humanity.
- Time Management: Emphasizing balance, this panel reminds viewers to cherish every moment and strike a harmonious life balance.
- Nature-Tech Harmony: A majestic whale merges landscapes and marine life, showcasing the delicate balance between nature and innovation.



Captivating Murals on the Walls of E-library  
(CRF Side)

Spanning three weeks, our dedicated team meticulously crafted these murals, infusing vibrant imagery and intricate details to inspire the NITK community with the fusion of art, technology, and imagination.

### Incident 2024: Main Building Lobby Setup

Each year, the Artists' Forum transforms the Main Building Lobby for Incident, and in 2024, the theme "Stories of the Streets and Beyond" came to life with a vibrant setup. Inspired by a pre-incident T-shirt design, the lobby featured an auto-rickshaw surrounded by people of diverse backgrounds, symbolizing the rich cultural tapestry of our nation.

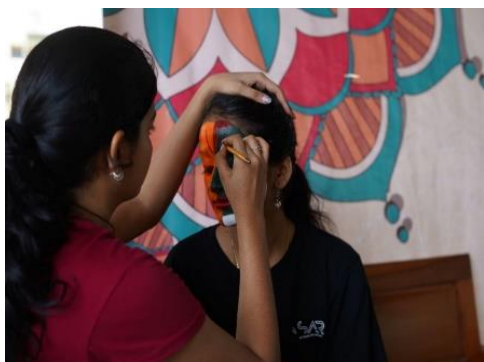


A spotlight illuminated the NITK lighthouse in the background, adding depth to the scene. Alongside the auto-rickshaw, a cow and her calf, and two children enjoying pani puri at a stall were depicted, capturing the essence of dynamic narratives found on the streets and beyond. This setup served as a visual celebration of the colorful and lively stories woven into the fabric of everyday life.

The Incident 2024 theme "Stories of the Streets and Beyond"

### Incident'24: Mukha Chitran - Face Painting Competition

As part of Incident 24, the Artists' Forum hosted Mukha Chitran, a captivating Face Painting Competition. Teams from NITK and other colleges showcased their artistic prowess, transforming faces into living artworks. The theme, "Faces of India," celebrated the nation's



rich cultural tapestry, with participants capturing its diverse cultures and traditions through vibrant hues and intricate designs.



Witnessing the metamorphosis of faces into stunning masterpieces was a testament to the creativity and skill of the participants, making it a truly magical experience.

Mukha Chitran - Face Painting Competition

### Chowk Chitrakar: Rangoli Competition at Incident'24

In the vibrant canvas of Incident'24, the Artists' Forum hosted Chowk Chitrakar, a captivating Rangoli Competition. This event invited participants to embark on a creative journey, unleashing their artistic flair to transform the ground into vibrant tapestries of patterns. With the theme "Time Travel Through Streets," participants guided viewers on a captivating journey through the evolution of streets across different civilizations and eras.



The competition not only provided a platform for artistic expression but also fostered cultural exchange and appreciation. Through their masterpieces, participants brought stories to life, weaving together historical narratives and contemporary interpretations. Their creations left a lasting impression on all who witnessed them, showcasing the power of art to transcend time and connect diverse perspectives.

Chowk Chitrakar – A Captivating Rangoli Competition.

### Kalakriti: Art Exhibition at Incident 24

In conjunction with Incident 2024, the Artists' Forum proudly presented Kalakriti, an exquisite art exhibition showcasing artworks by club members and talented students. Held in the transformed Ladies' Common Room, which itself served as a significant art piece following last year's major project, Kalakriti provided the perfect backdrop for displaying a diverse range of artworks. The exhibition featured several captivating pieces displayed on ropes and walls, adorned with handmade windmills, creating a street-style aesthetic that harmonized with the theme of Incident 24. From paintings to sculptures, each artwork showcased the creativity and talent of the artists, captivating the audience and enriching their experience of the cultural fest. Kalakriti not only celebrated artistic expression but also served as a testament to the vibrant artistry thriving within the NITK community.



### BAJA NITK Racing Club Showcase

During Engineer and Incident, the BAJA NITK Racing (BNR) Club presented their car to students from NITK and other educational institutions. The event was designed to enhance awareness of Team BNR by showcasing their vehicle. Attendees had the opportunity to explore the car up close, sit inside it, and learn about its various components.

Members of BNR conducted interactive sessions, providing insights into the car's mechanics and functionality. These interactions aimed to educate the audience about the car's intricacies and inspire curiosity and innovation among students. By sharing their knowledge and passion for



Club presented their car to students from NITK and other educational institutions.



engineering, BNR members contributed to the dissemination of technical understanding and the spirit of invention within the NITK community and beyond.

### BNR Shourya Car Launch

On January 4th, 2024, the BNR Shourya, a fully operational 4-wheel drive car, was unveiled in front of the Mechanical Department.



Fully operational 4-wheel drive car "Shourya" Launch Event.

### Events by Utkrishta Baharat Club

Movie Screening – "Bose: Dead/Alive"

Date: August 14, 2023

Venue: Student Activity Center (SAC)

Description: A screening of the movie "Bose: Dead/Alive" was organized just before Independence Day. More than 200 attendees, including students and faculty members, gathered to watch the film.

Vijaya Baithak

Date: October 29, 2023

Description: "Vijaya Baithak" celebrated Durga Puja and showcased Bengali culture through various performances including dance, singing, and monologues. The event provided a vibrant platform for cultural exchange and appreciation.



Showcasing Bengali Culture Through Performances Such as Dance, and Singing

### Youth Day Program in Honour of Swami Vivekananda

Date: January 12, 2024

Description: Organized to commemorate Swami Vivekananda's birth anniversary, the event celebrated his ideals and teachings, which continue to inspire youth empowerment and societal transformation. Participants reflected on Swami



Swami Vivekananda's Birth Anniversary Celebrations

Participants reflected on Swami Vivekananda's life and vision, highlighting his enduring impact worldwide. Captain Karnik, a seasoned military officer, provided insights aligning with Vivekananda's teachings, emphasizing discipline, courage, and national service.



### Iti-ha-asa Quiz

On January 18, 2024, Utkrishta Baharat Club hosted the enthralling "Iti-ha-asa Quiz," inviting participants to explore India's rich history. Spanning from the epic tales of Ramayana and Mahabharata to the valorous deeds of medieval freedom fighters and contemporary heroes, the quiz encapsulated the essence of Indian history and courage.

### Podcast Event: Rise of Indian Diplomacy and Its Effects on Indian Diaspora

On January 19, 2024, a podcast event, featuring guest speaker Rashmi Samant, offered a profound exploration of Indian diplomatic efforts and their influence on the Indian diaspora. Delving into the experiences of Indian students abroad, the discussion highlighted challenges such as racism and cultural barriers, shedding light on the complexities of navigating educational opportunities overseas.

### An Event on Sundar-Kand

On January 21, 2024, an event commenced with a vibrant rangoli decoration by HESC, followed by a skit presented by the Smile Club. The highlight was the recitation of Sundar Kand by NITK students, celebrating



the glories of Lord Shri Ram. The atmosphere was delightful, with everyone immersed in happiness and enthusiastically chanting the name of the deity.



The Recitation of Sundar Kand, Celebrating the Glories of Lord Shri Ram

### Chhatrapati Shivaji Maharaj Jayanti Rally

On January 19, 2024, an event commemorated Shivaji Maharaj Jayanti, honoring the enduring legacy of Shri Chhatrapati Shivaji Maharaj. It commenced with a poignant monologue highlighting Shivaji Maharaj's contributions to Indian history and culture. The atmosphere was charged with Maharashtrian cultural folk songs, captivating the audience, and immersing them in Maharashtra's rich heritage.

### Utkrishta Bharath - Incident Collaboration: Violin Concert

On March 29, 2024, Utkrishta Bharath collaborated with Incident, the cultural fest of NITK, to present a captivating violin concert. Skilled musicians showcased their talents, enchanting the audience with mesmerizing melodies. The collaboration celebrated India's rich cultural heritage through the universal language of music, fostering unity and appreciation for the arts. Attendees enjoyed an evening of soul-stirring performances, highlighting the power of collaboration in promoting cultural exchange and harmony.

### Utkrishta Bharath Club Mahashivratri Event

On March 8, 2024, the Maha Shivratri event organized by the Utkrishta Bharath Club was a resounding success, drawing enthusiastic participation from students and leaving a lasting impression on the entire student community. The event celebrated the auspicious occasion of Maha Shivratri, showcasing Indian culture and traditions. Attendees enjoyed intricate rangoli designs, captivating song, and dance performances, engaging skits depicting the festival's significance, and a soulful aarti. The vibrant atmosphere reflected the cultural richness and spiritual essence of Maha Shivratri, offering attendees a memorable experience.



### All India Inter NIT Staff and Faculty Cricket Tournament 2023-24

On December 14-17, 2023 NIT Trichy organized the All India Inter NIT Staff and Faculty Cricket Tournament aimed to promote a cohesive atmosphere for social interaction, develop sportsmanship, and allow staff and faculty members to



NITK Cricket Team - All India Inter NIT Staff and Faculty Cricket Tournament

showcase their sporting talents. The tournament provided an opportunity for participants from various NITs to engage in friendly competition and foster camaraderie among colleagues. The staff and faculty of NITK Surathkal participated in the event.



### NITK Surathkal Hosts All India Inter NIT Sports Meet 2023-24

NITK Surathkal hosted the All India Inter NIT Sports Meet 2023-24, featuring Kabaddi and Handball competitions for both men and women from October 27th to 29th, 2023. Drawing a massive



All India Inter NIT Sports Meet 2023-24 @ NITK Surathkal

participation of 800 students representing 24 NITs nationwide, the event aimed to foster a spirit of sportsmanship and camaraderie among the participants while providing a platform for showcasing their athletic talents.



### NITK Surathkal Celebrates Rashtriya Ekta Diwas 2023 with Unity Run

On the 148th birth anniversary of Sardar Vallabhbhai Patel, NITK Surathkal orchestrated Rashtriya Ekta Diwas celebrations followed by a Unity Run on October 31st, 2023. The event saw the Director, Deans, Registrar, Joint Registrar, all Assistant Registrars, Associate Deans, Faculty, Staff, and Students convene at the Institute Main Building at 6:45 AM. Over 700 participants, including students, faculty, and staff, took part in the Unity Run, demonstrating solidarity and commemorating the legacy of Sardar Vallabhbhai Patel.



Oath-taking ceremony on the 148<sup>th</sup> birth anniversary of Shri Sardar Vallabhbhai Patel



## Preserving Tradition: Ring Presentation Ceremony 2024 at NITK Surathkal

The Ring Presentation Ceremony, a cherished tradition unique to NITK Surathkal, unfolded on March 28th, 2024, at 5:30 PM in the New Sports Complex Ground. During this distinguished



Invocation by Students



Address by the Director Prof B. Ravi

event, each graduating student was bestowed with a Silver Ring embellished with the NITK emblem and year of graduation, symbolizing their academic journey.

Alongside the ring presentation,

accolades were conferred upon outstanding students in various categories, with five receiving gold/silver medals and two obtaining certificates of merit.

The ceremony was honored by the esteemed presence of Shri S.S. Nayak, a Chartered Accountant, who served as the Chief Guest. Leading the event was Prof. B. Ravi, the Director of NITK Surathkal, accompanied by Prof. A. C Hegde, Dean (SW), Prof. Dwarakish G S, Dean (Academics), and other dignitaries, making a memorable occasion of academic achievement and recognition.



Presentation of Rings to Outgoing Students



Vote of thanks by Associate Dean (Sports & SAC)

## 10.10 Hostels

National Institute of Technology Karnataka, Surathkal (NITKS) is an autonomous Institute of the Government of India under the Ministry of Education imparting technical education. National Institute of Technology Karnataka, Surathkal is one of the "Institutes of National Importance" declared under the NIT Act – 2007 (Act No.29 of 2007). The NITK Hostel Trust looks after NITK Hostel activities.

All students including foreign students are accommodated in hostels as per the following details:

Total number of boys' hostel	= 13
Total number of girls' hostel	= 06
Total capacity for boys	= 4473
Total capacity for girls	= 1343

## 10.11 Medals

### SPORTS PERFORMANCE DURING THE ACADEMIC YEAR 2023-24

Sl. No	Name of the Game/ sports	Level Tournament and result				Remark
		National level and Inter NIT Tournament	International Tournament	Inter Collegiate Tournament	Local Tournament	
1.	<b>Athletics</b>					
	100 mtrs. (Women)	Ms. Jyotsana Achal First place in AIINIT held at NIT Warangal				
	200 mtrs (Men)	Mr. Banoth Akhil First place in AIINIT held at NIT Warangal				
	200 mtrs. (Women)	Ms. Jyotsana Achal First place in AIINIT held at NIT Warangal	-	-	-	Crowned as Best Athlete Women
	400 mtrs (Men)	Mr. Banoth Akhil First place in AIINIT held at NIT Warangal	-	-	-	Crowned as Best Athlete Men
	400 mtrs (Women)	Ms. Hridya Second place in AIINIT held at NIT Warangal				
	4x400 relay (Men)	Nishchay R, Prince PM, Lakshitha Sheshan & Banoth Akhil Second place in AIINIT held at NIT Warangal				
	4x400 relay (Women)	Hridya, Prathyanga, Jeeva, Jyotsana Achal Second place in AIINIT held at NIT Warangal				
	Javelin throw (Men)	Mr. Yad Ram Meena - First Place				

		Mr. Krutharth - Third Place at AIINIT held at NIT Warangal				
	Javelin throw (Women)	Ms. Gunashree – Second Place at AIINIT held at NIT Warangal	-	-	-	
2.	Basketball Men	First Place at AIINIT held at MNIT Jaipur	-	Winner at Ablaze Tournament held by Dept. of Commerce, MAHE	Participated in Mangalore Basketball Club Tournament	
	Basketball Women	Third Place at AIINIT held at MNIT Jaipur	-		Participated in Mangalore Basketball Club Tournament	
3.	Badminton Men	Silver medal at COE Pune Participated in AIINIT held at MNIT Jaipur	-		-	
	Badminton Women	Third Place at AIINIT held at MNIT Jaipur	-		-	
4.	Table Tennis Men	First Place at AIINIT held at NIT Jamshedpur	-		-	Yash Potnis was crowned as Player of the Tournament
	Table Tennis Women	Participated in AIINIT held at NIT Jamshedpur	-	-	-	
5.	Chess Men	Third Place in AIINIT held at NIT Jamshedpur	-	-	Jay Silva and Chinmay Won 1 <sup>st</sup> and 2 <sup>nd</sup> respectively in the RCC BLITZ Cup held at Mangalore	
	Chess Women	Third Place in AIINIT held at NIT Jamshedpur	-	-	-	

6.	Hockey	Winner at AIINIT held at NIT Trichy	-	-	-	
7.	Handball (Men)	Second Place at AIINIT held at NITK Surathkal	-	-	-	Sameer Prajapati was crowned as the best player of the tournament
8.	Handball (Women)	Participated in AIINIT held at NITK Surathkal				
9.	Volleyball (Women)	Third Place at AIINIT held at NIT Kurukshetra				Ms. Swathi M. was crowned as player of the tournament
10.	Kabaddi Men	Participated in AIINIT held at NITK Surathkal	-	-	-	
11.	Kabaddi Women	Participated in AIINIT held at NITK Surathkal	-	-	-	
12.	Yoga (Men)	Participated in AIINIT held at NIT Jamshedpur	-	-	-	
13.	Yoga (Women)	Participated in AIINIT held at NIT Jamshedpur				
14.	Football	Participated in AIINIT held at NIT Durgapur and lost in Quarter Final	-	-	-	
15.	Kho-Kho Men	Second Position in AIINIT held at NIT Warangal	-	-	-	
	Kho-Kho Women	Participated in AIINIT held at NIT Warangal and lost in the Quarter Final	-	-	-	
16.	Cricket	Third Place in AIINIT held at NIT Trichy	-	-	-	
17.	Weight Lifting	Overall 2 <sup>nd</sup> runner up 1 Gold				

		1 silver 1 Bronze in AIINIT held at NIT Durgapur				
18.	Power Lifting	2 silver 1 Bronze in AIINIT held at NIT Durgapur				
19.	Body Building	Overall Championship 3 Gold 2 Silver 1 bronze in AIINIT held at NIT Durgapur				Mr. Junaid Jameel was crowned as best Bodybuilder

## 10.12 Awards and Distinctions

## 10.13 Students Placements

### Highlights:

The year 2023-24 has been a tough year for the Career Development Centre. We had reasonably good Placements and Training slots. Most of the companies including PSU's like GAIL, BEL, BEL-CRL Bangalore, BEML, C-DOT, C-DAC, MRPL, HPCL, HRRL and BPCL conducted placement / Internship drives in virtual, physical and hybrid modes. The CDC also participated in the 3 NBA exercises, with the chairmen of the visiting team at the CDC. Both chairmen appreciated the facilities, and placement and gave valuable advice. As Chairman of CDC, on behalf of the Institute, I thank all who enabled the entire process very successfully.

### Main Objectives:

To provide opportunities for,

1. Placement to all students of the final year B. Tech, M.Tech, MCA, MBA and M.Sc.
2. Training to all students to be covered during the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> Semester vacations. The compulsory training for B.Tech. Mining Engg. Students during the 5<sup>th</sup> and 6<sup>th</sup> Semester vacations.
3. Provide Counseling and facilitate the development of Soft Skills and Personal Effectiveness to help students build a successful career.

### Vision & Mission Statements of CDC

#### Vision:

To empower students to discover and pursue a path to a fulfilling career, so they can make their own unique marks on the world, achieving career contentedness and success.

#### Mission:

To support and facilitate students as they explore the career options, gain valuable experience, develop as professionals, become leaders of the country and launch their career plans with all round employability, entrepreneurship, and life skills.

### Performance Overview: (as of 01.04.2024)

- ❖ A total of 371 Companies visited NITK Surathkal for Campus Recruitment/Internship.
- ❖ 106 Companies visited NITK for the Placement process for the first time.

❖ 1188 students are placed – 659 B. Techs, 444 M. Techs, 41 MCAs, 22 MBAs, 22 MSc.

### Placement Record For 2023-24

Program	% placed
B. Tech	69.44
M.Tech	59.52
MCA	67.21
MBA	40.74
MSc (PHY+CHEM)	37.93

### Branch-wise UG Placements 2022-2023 (as of 01-04-2024)

Branch	Total Eligible Students	Placed
CIVIL ENGINEERING	117	48
CHEMICAL ENGINEERING	56	45
COMPUTER SCIENCE & ENGG	128	104
E & C ENGINEERING	128	87
E & E ENGINEERING	125	77
INFORMATION TECHNOLOGY	126	97
MECHANICAL ENGINEERING	177	132
METALLURGY & MATERIALS ENGG	49	39
MINING ENGINEERING	43	30
<b>Total</b>	<b>949</b>	<b>659</b>

(The data given is as of 01-04-2024 and placements are expected to continue till 30-06-2024)

### Internship for the Academic Year 2023-24:

Sl. No.	Branch	No. of Slots
01	Chemical Engineering	16
02	Civil Engineering	17
03	Computer Engineering	59
04	Electronics & Communication Engineering	99
05	Vehicle & Electronics Engineering	47
06	Information Technology	56
07	Mechanical Engineering	62
08	Metallurgical & Material Engineering	10
09	Mining Engineering	2
10	Artificial Intelligence	19
11	Mathematical and Computational Sciences	9
12	MCA	14
13	MBA	6
	<b>Total Number of Students</b>	<b>416</b>

<b>Number of Companies: 74</b>	<b>Number of Internships: 416</b>
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## 11. HUMAN RESOURCE

### Teaching Staff Number

Professors	110
Associate Professors	81
Assistant Professors	83
System Manager	01
	<b><u>275</u></b>

### Non-Teaching Staff

Administrative Officers	20
Technical staff	68
Non-technical supporting staff	92
	<b><u>180</u></b>

### 11.1 The Staff

#### A. Administrative Staff

##### Director: (Head of the Institution)

- Prasad Krishna, (from 25.08.2022 to 14.06.2023)  
Ph. D, (University of Michigan, Ann Arbor, USA)
- B Ravi, (from 15.06.2023)  
Ph.D. (IISc, Bengaluru)

##### Dean (Academic)

- Vidya Shetty K, (from 1.10.2021 till 6.11.2023)  
Ph.D. (NITK, Surathkal)
- Dwarakish G S, (from 7.11.2023)  
Ph.D. Anna University, Chennai,

##### Dean (Planning and Development)

- K S Babu Narayana, (till 4.10.2023)  
Ph.D.
- Gangadharan K V, (from 5.10.2023)  
Ph.D. (IIT, Madras)

##### Dean (Faculty Welfare)

- G C Mohan Kumar, (till 15.03.2024)  
Ph.D. (IIT Madras)
- Laxminidhi T, (from 16.03.2024)  
Ph.D. (IIT Madras)

##### Dean (Alumni and Corporate Relations)

- Shrikantha S Rao, (from 1.2.2023)  
Ph.D. (NITK, Surathkal)

### Dean (Student Welfare)

- Narendranath S, (till 31.7.2023)  
Ph.D. (IIT Kharagpur)
- A Chitharanjan Hegde, (from 1.8.2023)  
Ph.D. (Mangalore University)

### Dean (Research & Consultancy)

- S M Kulkarni, (till 31.12.2023)  
Ph.D. (IISc, Bangalore)
- Udaya Bhat K, (from 1.1.2024)  
Ph.D. (Indian Institute of Science, Bangalore)

## B. ACADEMIC STAFF (TEACHING)

### 1. Department of Water Resources and Ocean Engineering

#### Professors:

- N. Lakshman, Ph.D., (I.I.Sc., Bangalore)
- Subba Rao, Ph.D. (Mangalore University), retired on 31.7.2023
- G.S. Dwarakish, Ph.D. (Anna University)
- Mahesh A, Ph.D. (IIT Bombay)
- Kiran G. Shirlal, Ph.D. (NITK),
- Amba Shetty, Ph.D. (NITK)
- B.M. Dodamani, Ph.D. (NITK)
- K Varija, Ph.D. (IISc. Bangalore), HOD from 25.03.2023
- H. Ramesh, Ph.D. (NITK)
- Manu, (Ph.D. NITK)
- Nasar T, Ph.D. (IIT, Madras)

#### Associate Professors:

- K. Subrahmanya, Ph.D. NITK
- Pruthviraj U., Ph.D. (NITK)
- K. Vadivuchezhian, Ph.D. (IIT Madras)
- Debabrata Karmakar, Ph.D., (IIT Kharagpur)

#### Assistant Professor Grade – 1:

- Shwetha Hassan Rangaswamy, Ph.D. (IISc, Bangalore)

#### Assistant Professor (on contract)/ (Grade – II):

- Chandan Pradhan, Ph.D. (IIT, Guwahati)

### 2. Department of Chemical Engineering

#### Professors:

- Gopal Mugeraya, Ph.D. (I.I.Sc. Bangalore) retired on VRS 30.06.2023
- M.B. Saidutta, Ph.D. (I.I.T. Bombay)
- Raj Mohan., Ph.D. (I.I.T., Kharagpur)
- K. Vidya Shetty, Ph.D. (NITK)
- Prasanna B.D., M.E. (Ph.D. NITK)
- P.E. Jagadeeshbabu, Ph.D. (Anna Univ. Chennai) HOD till 22.11.2023
- I Regupathi, Ph.D., (Anna University, Chennai) HOD from 23.11.2023
- Keyur Raval, Ph.D. (RWTH Aachen Technical University, Germany)

- Hari Prasad Dasari, Ph.D. (Korea Institute of Science and Technology, Korea)
- Hari Mahalingam, Ph.D. (Singapore)

**Associate Professors:**

- S. Gangamma, Ph.D. (IIT, Bombay)
- Ashraf Ali, Ph.D. (IIT Madras)
- Jagannathan T K, Ph.D. (IIT Madras)

**Assistant Professors Grade - 1:**

- Jitendra Pal S., Ph.D. (IIT Delhi)
- Chinta Sarkar Rao, Ph.D. (IIT, Madras)
- Vaishakh Nair, Ph.D. (IIT, Madras)

**Assistant Professor (on contract)/Grade – II:**

- Mahesh Kumar Poddar, Ph.D., (IIT Guwahati) (Contractual)
- Mohan Lal Meena, Ph.D. (National Taiwan University of Science and Technology, Taiwan)
- M. Rajasekaran, Ph.D. (IISC, Bangalore)

**3. Department of Civil Engineering**

**Professors:**

- M.C. Narasimhan, Ph.D. (IIT Madras)
- Katta Venkataramana, Dr.Eng. (Kyoto University, Japan)
- A.U. Ravi Shankar, Ph.D (Univ. of Roorkee) retired on 30.04.2023
- K. Swaminathan. Ph.D. (I.I.T. Bombay) retired on V.R.S. on 31.3.2023
- Varghese George, Ph.D. (I.I.T. Bombay)
- S. Shrihari, Ph.D. (Univ. of Roorkee)
- Sitaram Nayak, Ph.D. (I.I.Sc. Bangalore)
- Subhas C. Yaragal, Ph.D. (IISc. Bangalore) H.O.D. 22.4.2023
- K.S. Babunaryan, Ph.D. (NITK), retired on 30.11.2023
- B.R. Jayalekshmi, Ph.D. (NITK) HOD till 21.4.2023
- Sunil B. Malegole, Ph.D. (NITK)
- Basavaraj Manu, Ph.D. (IIT, Bombay)
- Suresha S N, Ph.D. (NITK)
- Arun Kumar Thalla (IIT Roorkee), Ph.D.
- Bibuti Bhushan Das, Ph.D., (IIT Bombay)
- Gangadhar Mahesh, Ph.D. (University of Hongkong)
- C.P. Devatha, Ph.D. (IIT Roorkee)

**Associate Professors:**

- S Balu, Ph.D. (IIT Madras)
- T Palanisamy, Ph.D.
- Raviraj H. Mulangi, Ph.D., (IISc, Bangalore)
- Lohitkumar Nainegali, Ph.D. (IIT, Kanpur)
- Sreevalsa Kolathayar, Ph.D. (IISc, Bangalore)
- Rajasekaran, Ph.D. (IIT, Madras)

**Assistant Professors Grade – 1:**

- Prashanth M.H., Ph.D. (IISc, Bangalore)
- Babloo Chaudhary, Ph.D., (Kyoto, Japan)
- Anupama Surenjan, Ph.D., (IIT, Madras)
- J Vijaya Vengadesh Kumar, Ph.D. (IIT, Madras)

- Sreekumar M, Ph.D. (IIT, Bombay)
- Vinoth S, Ph.D. (Anna University, Chennai)
- Mithun Mohan, Ph.D. (IIT Roorkee)
- Pavan G S, Ph.D. (IISc, Bangalore)
- Sridhar G, Ph.D. (IIT, Madras, & NUS. Singapore (Joint Degree)

**Assistant Professors Grade – 1 (on Lien):**

- Adani Azhoni, Ph.D. (IIT, Delhi) on Lien from 18.1.2023

**Assistant Professor (on contract)/Grade – II):**

- Saranya P, Ph.D. (IIT, Madras)
- Jacklin Jeke Nilling, Ph.D. (IIT, Kanpur)

**4. Department of Computer Science & Engineering**

**Professors:**

- K. Chandrasekaran, Ph.D. (J.N.T.U.)
- P Santhi Thilagam, Ph.D. (NITK)
- Annappa, Ph.D (NITK, Surathkal)
- Alwyn Roshan Pais, Ph.D. (NITK)
- Shashidhar G Koolagudi, Ph.D. (IIT Kharagpur) HOD -15.02.2021 to 14.2.2023

**Associate Professors:**

- Vani M., M.Tech. (NITK, Surathkal)
- Manu Basavaraju, Ph.D. (IISC, Bangalore) HOD from 15.02.2023
- Beerappa Rama C, Ph.D. (NITK)
- Jeny Rajan, Ph.D. (University of Antwerpen, Belgium)
- Mohit P. Tahiliani, Ph.D. (NITK)
- Basavaraj Talawar, Ph.D. (IISC Bangalore)

**Assistant Professors Grade - 1:**

- Saumya A. Hegde, Ph.D. (NITK)
- Mahendra Patap Singh, Ph.D. (I.I.T. Kharagpur)
- M Venkatesan, Ph.D. (VIT University, Vellore) relieved on 17.9.2023
- Biswajit Bhowmik, Ph.D. (IIT Guwahati)
- Sourav Kanti Addya, Ph.D.
- Manjanna B, Ph.D. (IIT, Guwahati)

**Assistant Professor (On contract)/ (Grade – II):**

- Shridhar Sanshi, Ph.D. (NITK, Surathkal)
- Radhika B. S., Ph.D. (IIT, Bombay)

**5. Department of Chemistry**

**Professors:**

- Nityananda Shetty, Ph.D. (Mangalore University)
- Chitharanjan Hegde, Ph.D. (Mangalore University)
- Ramachandra Bhat, Ph.D. (Mangalore University)
- Krishna Bhat, Ph.D. (Mangalore Univ.)
- Arun Mohan Isloor, Ph.D. (Mangalore University)
- Udaya Kumar D., Ph.D. (NITK, Surathkal)
- Darshak Rameshbhai Trivedi, Ph.D. (Bhavnagar University) HOD from 23.11.2023

**Associate Professors:**

- Sib Sankar Mal, Ph.D. (JUB Germany)
- Beneesh P. B., Ph.D. (University of Kerala)
- Debashree Chakraborty, Ph.D. (IIT Kanpur)
- Saikat Dutta, Ph.D. (University of Iowa, USA)

**Assistant Professor Grade -1:**

- Vijayendra S Shetti, Ph.D. (IIT, Bombay)
- Lakshmi Vellanki, Ph.D. (IIT, Bombay)

**6. Department of Electronics and Communication Engineering**

**Professors:**

- S. Sumam David, Ph.D. (I.I.T. Madras)
- M. Shankarnarayan Bhat, Ph.D. (I.I.Sc., Bangalore)
- John D'Souza, Ph.D. (I.I.T. Kharagpur)
- U. Shripathi Acharya, Ph.D., (I.I.Sc., Bangalore)
- Laxminidhi T., Ph.D. (IIT, Madras)
- Ashvini Chaturvedi, Ph.D. (Multimedia University, Malaysia) HOD till 18.4.2023
- Neelavar Shekar Shet, Ph.D. (NITK), HOD from 19.4.2023
- M. Ramesh Kini, Ph.D. (NITK)

**Associate Professors:**

- Deepu Vijayasenan, Ph.D. (EPFL, Switzerland)
- Raghavendra B S, Ph.D. (IISC, Bangalore)
- Ratnamala Rao, Ph.D. (IIT Madras)
- Rekha S., Ph.D. (NITK)
- Aparna P., Ph.D. (NITK)
- Prashantha Kumar H, Ph.D. (NITK)
- A V Narasimhadhan, Ph.D. (IISc), Bangalore
- Shyam Lal, Ph.D. (BIT Ranchi)
- Krishna Moorthy K., Ph.D. (IIT, Bombay)
- Pathipati Srihari, Ph.D. (Andhra University)
- Prabu K, Ph.D. (NIT, Tiruchirapalli)

**Assistant Professors Grade - 1:**

- Kalpana G. Bhat, Ph.D. (NITK)
- Sushil Kumar Pandey, Ph.D. (IIT, Indore)
- Sandeep Kumar, Ph.D. (Indian School of Mines Institute, Dhanbad)
- Mandeep Singh, Ph.D. (IIT, Roorkee)
- Nikhil K S, Ph.D. (IIT, Madras)
- Bini A A, Ph.D. (NITK, Surathkal)

**Assistant Professor Grade-II (Regular):**

- Nagavel, M.E. (Jadavpur University, Kolkata)

**Assistant Professors (on contract/Grade - II):**

- Shikha Baghel, Ph.D. (IIT, Guwahati)

**7. Department of Electrical and Electronics Engineering**

**Professors:**

- Udayakumar R.Y., Ph.D. (IIT Bombay)

- K. Panduranga Vittal, Ph.D. (Mangalore Univ.)
- Shubhanga K.N., Ph.D. (IIT, Bombay)
- Gururaj S. Puneekar, Ph.D. (IIT, Kharagpur)
- Venkatesa Perumal, Ph.D. (IIT Delhi)
- Vinatha U., Ph.D. (NITK, Surathkal)
- Dattatraya N. Goankar, Ph.D. (IIT, Roorkee) HOD from 17.5.2022
- Debashisha Jena, Ph.D. (NIT Rourkela)

**Associate Processors:**

- Jora M. Gonda, Ph.D. (NITK)
- K. Rajagopal, M.Tech. (I.I.T. Kharagpur)
- K. Manjunatha Sharma, Ph.D. (NITK)
- Parthiban, Ph.D. (IIT, Roorkee)
- Debashisha Jena, Ph.D. (NIT Rourkela)
- R Kalpana, Ph.D. (IIT, New Delhi)
- Nagendrappa H., Ph.D. (University of Victoria, BC, Canada)
- Tukaram Moger, Ph.D. (IISC, Bangalore)
- Krishnan C M C, Ph.D. (Ghent University, Ghent, Belgium)
- Karthikeyan A, Ph.D. (NIT, Thiruchirapalli)
- Y Suresh, Ph.D. (NIT Rourkela)

**Assistant Professor Grade - I:**

- Shashidhara Mecha Kotian, Ph.D. (NITK, Surathkal)
- Yashawanth Kashyap, Ph.D. (IIT, Mandi)
- B Dastagiri Reddy, Ph.D. (NIT, Tiruchirapalli)
- Arun Dominic D, Ph.D. (IIT Roorkee)
- Vignesh Kumar V, Ph.D. (NIT, Tiruchirapalli)
- Ravi Raushan, Ph.D. (IIT (ISM), Dhanbad)
- Dharavath Kishan, Ph.D. ((NIT, Tiruchirapalli)
- Md Waseem Ahmad, Ph.D. (IIT, Kanpur)
- Prajof P, Ph.D. (IIT, Bambay)

**Assistant Professor Grade – II (Regular)**

- Iddya Raghavendra Rao M.Tech. (Mangalore Univ.)
- Girisha Navada, M.Tech. (University of Calicut)

**8. School of Humanities, Social Sciences and Management**

**Professors**

- K.B. Kiran, Ph.D. (Mangalore Univ.)
- Shashikantha K., Ph.D. (University of Hyderabad)
- S. Pavan Kumar, Ph.D., (IIT Kharagpur)
- Ritanjali Majhi, Ph.D. (BIT, Mesra)
- Pradyot Ranjan Jena, Ph.D. (IIT Kanpur)

**Associate Professors:**

- Sheena, Ph.D., (University of Calicut) HOD from 25.1.2023
- Rajesh Acharya H, Ph.D., (University of Hyderabad)
- Dhishna P, Ph.D., (University of Pondicherry)
- Bijuna C. Mohan, Ph.D. (NITK, Surathkal)
- Gopalakrishna B V, Ph.D., (University of Mysore)



- Savita Bhat, Ph.D. (IIT, Bombay)
- Rashmi Uchil, Ph.D. (NITK, Surathkal)

**Assistant Professors Grade - 1:**

- Suprabha K. R, Ph.D., (VTU)
- Sreejith, Ph.D. (IIT New Delhi) relieved on 16.12.2023

**Assistant Professor (On contract)/ (Grade-II):**

- Rahul Sivarajan, Ph.D. (TISS, Mumbai)

**9. Department of Information Technology**

**Professors:**

- Ananthanarayana V.S., Ph.D. (I.I.Sc. Bangalore)
- G. Ram Mohan Reddy, Ph.D. (Edinburgh, U.K.)

**Associate Professors:**

- Jaidhar C D, Ph.D. (NIT, Tiruchirapalli), HOD till 22.11.2023
- Geetha V., Ph.D. (NITK) (HOD from 23.11.2023)
- Biju R. Mohan, Ph.D. (NITK)
- Sowmya Kamath S., Ph.D. (NITK)
- Nagamma Patil, Ph.D. (IIT, Roorkee)
- Anand Kumar M, Ph.D.
- Purushothama B. R., Ph.D. (NIT, Warangal)

**Assistant Professors Grade – I:**

- Dinesh Naik, M.Tech. (VTU, Belgaum)
- Kiran M, Ph.D. (NITK, Surathkal)
- Bhawana Rudra, Ph.D. (IIT Allahabad)
- Shrutilipi Bhattacharjee, Ph.D. (IIT, Kharagpur)

**Assistant Professors (On contract)/ (Grade – II):**

- Janani T, Ph.D. (NIT, Tiruchirappalli)

**10. Department of Mathematical and Computational Sciences**

**Professors:**

- Kandasamy, Ph.D. (I.I.T. Bombay)
- Suresh M. Hegde, Ph.D. (Delhi Univ.) retired on 29.2.2024
- Santhosh George, Ph.D. (Goa University)
- Murulidhar N.N., Ph.D. (I.I.T. Bombay)
- Shyam Srinivas Kamath, Ph.D. (Karnataka Univ.)
- B.R. Shankar, Ph.D. (I.I.Sc., Bangalore)
- R. Madhusudhan., Ph.D. (IIT, Roorkee), HOD till 22.11.2023
- P. Sam Johnson, Ph.D. (Alagappa University) HOD from 23.11.2023
- Pushparaj Shetty, Ph.D. (IIT Delhi)
- V. Murugan, Ph.D. (IIT, Madras)

**Associate Professors:**

- Chandhini G, Ph.D. (IIT, Madras)
- Srinivasa Rao Kola, Ph.D. (IIT, Kharagpur)
- Jidesh P., Ph.D. (NITK)
- A Senthil Thilak, Ph.D. (NIT, Tiruchirappalli)
- Kedarnath Senapati, Ph.D.

#### Assistant Professors Grade 1:

- Vivek Sinha, Ph.D (IIT, Bombay)
- Vishwanath Kadaba Puttanna, Ph.D., (NITK)
- Jothi Ramalingam, Ph.D. (Queensland University of Technology, Brisbane, Australia)
- Falguni Roy, Ph.D. (IIT, Kharagpur)

#### Assistant Professor (On contract)/ (Grade-II)

- Vidyadhar Upadhya, Ph.D. (IISc, Bengaluru)
- Samadrita Bera, Ph.D. [IIT (ISM), Dhanbad]
- Pushpajit Khaire, Ph.D. (VNIT, Nagpur)

### 11. Department of Mechanical Engineering

#### Professors:

- G.C. Mohan Kumar, Ph.D. (IIT, Chennai)
- H. Suresh Hebbar, Ph.D. (I.I.T. Delhi) retired on 30.6.2023
- Prasad Krishna, Ph.D., (Univ. of Michigan, Ann Arbor, USA) on lien to (Director) at NIT Calicut from 18.10.2021
- Satyabodh M Kulkarni, Ph.D. (I.I.Sc., Bangalore)
- Gangadharan K.V., Ph.D. (I.I.T., Madras)
- Ravi Kiran Kadoli, Ph.D. (IIT, Madras)
- Narendranath S., Ph.D. (IIT, Kharagpur) on lien to (Director) at NERIST, Arunachal Pradesh from 21.8.2023
- Shrikantha S Rao, Ph.D. (NITK)
- S.M. Murigendrappa, Ph.D. (I.I.T., Bombay) HOD from 9.1.2024
- Kumar G.N., Ph.D. (IIT, Delhi)
- Jeyaraj P, Ph.D., (IIT Madras)
- Hemantha Kumar, Ph.D., (IIT, Madras)
- Ramesh M.R, Ph.D., (IIT, Roorkee)
- Shrikanth Bontha, Ph.D. (Wright State)
- Arun M, Ph.D. (University of Greenwich, London, UK)
- Subhaschandra Kattimani, Ph.D. (IIT, Kharagpur)
- Sathyabhama A., Ph.D., (NITK)
- Shivananda Nayak H., Ph.D. (IIT Roorkee)
- Veershetty Guntapure, Ph.D. (IIT, Madras)
- Anish S, Ph.D. (IIT, Madras)
- Sharnappa Joladarashi, Ph.D. (IIT, Madras)

#### Associate Professors

- Mervin A. Herbert, Ph.D. (I.I.T., Kharagpur)
- Guruprasad K.R., Ph.D. (I.I.Sc., Bangalore) relieved on 15.07.2023
- Navin Karanth P., Ph.D. (NITK)
- Vasudeva M., Ph.D. (I.I.T. Bombay)
- Sudhakar Jambagi, Ph.D (IIT Kharagpur)
- N. Gnanasekaran, Ph.D. (IIT, Madras)
- Ranjith M., Ph.D., Dong-A University, Busan, South Korea
- Poornesh Kumar Koorata, Ph.D. (Inha), University of Korea

#### Assistant Professors Grade – I

- Arumuga Perumal D, Ph.D. (IIT Guwahati)
- Saurabh Chandraker, Ph.D. (NIT, Rourkela)
- Somasekhara Rao Todeti, Ph.D., (IISc Bangalore)
- Parthasarathy P, Ph.D. (Karlsruhe Institute of Technology, Germany)
- Arun Kumar Shettigar, Ph.D. (NITK)
- Mruthyunjaya Swamy K B, Ph.D. (IIT, Kharagpur)
- Ranjeet Kumar Sahu, Ph.D. (IIT, Madras)
- A S S Balan, Ph.D. (IIT, Madras)
- P S Suvin, Ph.D. (IISc., Bangalore)
- Khyati Verma, Ph.D. (IIT, Delhi)

#### Assistant Professors Grade – I (On lien)

- Ajay Kumar Yadav, Ph.D. (I.I.T. Kharagpur) on lien from 22.11.2022
- Mrityunjay R. Doddamani, Ph.D. (NITK, Surathkal) relieved on 31.10.2023

#### Assistant Professors (On contract)/ (Grade – II)

- Mervin Joe Thomas, Ph.D. (NIT, Calicut)
- Deepak Kumar, Ph.D. (IIT, Madras)
- Abhilash Singh, Ph.D. (IIT, Roorkee)

### 12. Department of Mining Engineering

#### Professors:

- V. Rama Sastry, Ph.D. (B.H.U. Varanasi), retired on VRS 30.4.2023
- M. Govinda Raj, Ph.D. (Mangalore University)
- Harsha Vardhan, Ph.D. (Indian School of Mines Dhanbad) H.O.D. from 21.4.2023
- M. Aruna, Ph.D. (University of Dhanbad)
- Karra Rama chandar, Ph.D. (NITK)

#### Associate Professor:

- Anup Kumar Tripathi, Ph.D. (IIT, Madras)
- Bijay Mihir Kunar, Ph.D. (IIT, Kharagpur)
- Sandi Kumar Reddy, Ph.D. (NITK)

#### Assistant Professor Grade-1:

- Akhil Avchar, Ph.D. (IIT [ISM], Dhanbad)

### 13. Department of Metallurgical & Materials Engineering

#### Professors:

- K. Narayan Prabhu, Ph.D. (Mangalore Univ.)
- Jagannatha Nayak, Ph.D. (NITK)
- Udaya Bhat, Ph.D. (I.I.Sc., Bangalore)
- Anandan Srinivasan, Ph.D. (I.I.T., Kharagpur)
- Subray R. Hegde, Ph.D. (University of Canada)

#### Associate Professor:

- Kumkum Banerjee, Ph.D. (IIT Kharagpur) HOD from 15.1.2024
- Ravishankar K.S., Ph.D. (NITK) HOD till 14.1.2024
- Mohammad Rizwanur Rahman, Ph.D., (Keio University, Japan)
- Preetham Kumar G V, Ph.D. (IIT, Madras)
- Shashi Bhushan Arya, Ph.D. (IIT, Bombay)

- Saumen Mandal, Ph.D. (IIT, Kanpur)
- Rajasekaran B, Ph.D. (IIT, Madras)

**Assistant Professor Grade - 1:**

- Sumanth Govindarajan, Ph.D. (IISc, Bangalore)
- Selvakumar Murugesan, Ph.D. (IIT, Kharagpur)

**Assistant Professors (On contract)/(Grade – II)**

- Lipak Kumar Sahoo, Ph.D. (IIT, Madras)

**14. Department of Physics****Professors:**

- H.D. Shashikala Ph.D (Osmania Univ.) retired on VRS on 30.4.2023
- Udayashankar N.K., Ph.D. (I.I.Sc. Bangalore)
- M.N. Satyanarayan, Ph.D. (I.I.Sc., Bangalore)
- Nagaraj H.S., Ph.D. (Mangalore University),
- Ajith K. Madam, Ph.D. (University of Hyderabad)

**Associate Professors**

- Kartick Tarafder, Ph.D. (Jadavpur University) HOD from 23.11.2023

**Assistant Professors Grade - I:**

- Partha Pratim Das, Ph.D. (University of Cincinnati [Elec Engg.])
- Deepak Vaid, Ph.D. (USA) relived on 30.10.2023
- T. K. Shajahan, Ph.D. (IISC, Bangalore)
- Sreenath V, Ph.D. (IIT, Madras)

**C. NON-ACADEMIC STAFF (NON-TEACHING) as on 31.3.2024**

Sl. No.	Name of the Posts	In position
1	Registrar	1
2	Librarian	1
3	Joint Registrar	1
4	Assistant Registrar (Admin.)	1
5	Assistant Registrar (Accounts)	1
6	Assistant Registrar (Purchase)	1
7	Executive Engineer	1
8	Assistant Librarian	1
9	Medical Officer	2
10	SAS Officer	2
11	Senior Scientific Officer	1
12	Technical Officer	7
13	Private Secretary (Higher)	1
14	Superintendent (SG-I)	1
15	Superintendent (SG-II)	2
16	Senior Superintendent	1
17	Superintendent	4
18	Stenographer (SG-I)	3
19	Assistant (SG I)	3
20	Assistant (SG II)	15
21	Senior Assistant	11

22	Junior Assistant	23
23	Assistant Engineer (SG I)	8
24	Technical Assistant (SG II)	4
25	Assistant Engineer (SG II)	5
26	Technical Assistant	4
27	Technician (SG I)	2
28	Technician (SG II)	2
29	Senior Technician	16
30	Technician	27
31	Office Attendant (SG I)	1
32	Office Attendant (SG II)	4
33	Senior Lab Attendant	1
34	Senior Office Attendant	3
35	Office Attendant	19
<b>TOTAL</b>		<b>180</b>

<b>GROUP 'A'</b>		
<b>Sl. No</b>	<b>Name of the Employees</b>	<b>Designation</b>
1	K. Ravindranath	Registrar
2	Dr. Mallikarjun Angadi	Librarian
3	Ram Mohan Y	Joint Registrar
4	Vijaya Kumar Ghode	Senior Scientific Officer
5	Priyanka Dattanand Amadalli	Assistant Registrar (Accounts)
6	Gaurav Chowdhury	Assistant Registrar (Admin.)
7	Bansod Pritam Ramesh	Assistant Registrar (Purchase)
8	Anasuya C. Chakari	Assistant Librarian
9	Mohamod Fioze Khaza	Executive Engineer
10	Dr. (Smt) Shreemathi	Medical Officer
11	Dr.M. L Balabhaskar	Medical Officer
12	Dr. Hem Prasad Nath	SAS Officer
13	Dr. Manoj	SAS Officer
14	Gangadhara B	Technical Officer
15	Aruna Kumar Shetty B	Technical Officer
16	Pradeep D	Technical Officer
17	Gayathri Rao	Technical Officer
18	Aravind Kolur	Technical Officer
19	C.Vairavanathan	Technical Officer
20	Shantha Kumar M. N	Technical Officer
<b>GROUP 'B'</b>		
21	Murugavelu D	Superintendent (SG-I)
22	Sandhya	Private Secretary
23	Pathitha	Superintendent (SG-II)
24	Babu	Superintendent (SG-II)
25	Narayan P	Assistant Engineer (SG-I)
26	Malinga Naik	Assistant Engineer (SG-I)

27	B.K.Mahesh	Assistant Engineer (SG-I)
28	Dr. Sreekanth R.Lamani	Assistant Engineer (SG-I)
29	D. C.Virupaksha	Assistant Engineer (SG-I)
30	Seetharama	Assistant Engineer (SG-I)
31	Nagaraja Bhat K	Assistant Engineer (SG-I)
32	Vishwanatha Poojary	Assistant Engineer (SG-I)
33	Jayantha A	Technical Assistant (SG-II)
34	Shashikantha	Technical Assistant (SG-II)
35	Shrikant Fakira B	Technical Assistant (SG-II)
36	Vishwanath Pratap Singh	Technical Assistant (SG-II)
37	Suguna Kumar.B	Assistant Engineer (SG-II)
38	Rangappa B. Gowdar	Assistant Engineer (SG-II)
39	Subramanya	Assistant Engineer (SG-II)
40	Chandrashekar M.K	Assistant Engineer (SG-II)
41	Umesha P	Assistant Engineer (SG-II)
42	Laxminarayana H	Stenographer (SG-I)
43	Octavia Zeena D'souza	Stenographer (SG-I)
44	Dorin Snehalatha	Stenographer (SG-I)
45	Wilma Irene Pinto	Senior Superintendent
46	Gujre Amey	Superintendent
47	Vaibhav Santosh Lonkar	Superintendent
48	Sayyad Fayaz	Superintendent
49	Jayesh Kumar Verma	Superintendent
50	Jagadish Hegde	Technical Assistant
51	Shivashankar	Technical Assistant
52	Gurudatha Shenoy	Technical Assistant
53	Santhosh Kumar S Anchan	Technical Assistant
54	Shakunthala G. Shetty	Assistant (SG-I)
55	Champavathi	Assistant (SG-I)
56	Udaya Kumar	Assistant (SG-I)/ Superintendent I/c
57	Mohana	Technician (SG-I)
58	Gopalakrishna M	Technician (SG-I)
<b>GROUP 'C'</b>		
59	Shubha L Kotian	Assistant (SG-II)
60	Ashoka	Assistant (SG-II)
61	Surekha Shetty	Assistant (SG-II)
62	Karunakara	Assistant (SG-II)
63	Vijayalaxmi Prabha	Assistant (SG-II)
64	Anni	Assistant (SG-II)
65	Harish M Shetty	Assistant (SG-II)
66	Dayananda	Assistant (SG-II)
67	Sunitha A	Assistant (SG-II)
68	Vasanth Naik	Assistant (SG-II)
69	Vijaya K	Assistant (SG-II)
70	Ashalatha Y	Assistant (SG-II)
71	Subrahmanya P.N	Assistant (SG-II)



72	Yathisha	Assistant (SG-II)
73	Baby Kishori	Assistant (SG-II)/ Superintendent I/c
74	Madhava A.A	Technician (SG-II)
75	Hanumanth D Pujar	Technician (SG-II)
76	Jnaneshwara G. K.	Senior Technician
77	Ashwija S. Naik	Senior Technician
78	Seema Kundar	Senior Technician
79	Nishanth Kumar	Senior Technician
80	Kiran	Senior Technician
81	Vagdevi Prabha	Senior Technician
82	Akshay Kumar P. P.	Senior Technician
83	Harshitha Shetty	Senior Technician
84	Shah Niyas P. K.	Senior Technician
85	Karunya G.	Senior Technician
86	Anand Das T. K.	Senior Technician
87	Shivaprasad K.	Senior Technician
88	Rohit Kumar Yadav	Senior Technician
89	Suhas Gowda R.	Senior Technician
90	Shailendra	Senior Technician
91	Basavarajaiah A.G	Senior Technician
92	Arun M.	Senior Assistant
93	Selvamuthukumaran R.	Senior Assistant
94	Abhishek Nair	Senior Assistant
95	Suraj Sharma	Senior Assistant
96	Hari Vishnu	Senior Assistant
97	Aditi Tripathi	Senior Assistant
98	Krishna Raj	Senior Assistant
99	Vignesh M.	Senior Assistant
100	Narva Nagaraju	Senior Assistant
101	Raghuveera	Senior Assistant
102	Ashok Kumar Shettigar	Senior Assistant
103	Sushma	Technician
104	Subhas	Technician
105	Ramavath Saidanayak	Technician
106	Chitrashree S.	Technician
107	Geetesh Kumar	Technician
108	Sumedha	Technician
109	Vikram Suvarna	Technician
110	Swathi R.	Technician
111	Abey Ealiyas	Technician
112	Muhammad Shahil K. K.	Technician
113	Pradeepa	Technician
114	Vinayaraj Mahabaladakka Krishnappa Naik	Technician
115	Avinash	Technician
116	Raghurama	Technician
117	Vamana	Technician

118	Chethan	Technician
119	Mohini	Technician
120	Prasad G. Salian	Technician
121	Abhishek Maruti Pawar	Technician
122	Anshu Kumar	Technician
123	Akash Kumar	Technician
124	Sundara Shettigar	Technician
125	Lokesh Naik	Technician
126	Ramu	Technician
127	Ravi	Technician
128	Satisha	Technician
129	Yogisha	Technician
130	K. P. Charan	Junior Assistant
131	Prathik N. S.	Junior Assistant
132	Krishna Kumari	Junior Assistant
133	Neema I. K.	Junior Assistant
134	Chandrika	Junior Assistant
135	Raveendra K.	Junior Assistant
136	Aravinda Pandu Karnad	Junior Assistant
137	Lavanya P. Acharya	Junior Assistant
138	Arulazhagan K.	Junior Assistant
139	Kuruva Eeranna	Junior Assistant
140	Rakesh Kumar	Junior Assistant
141	Ashraf Khan	Junior Assistant
142	Gorla Venu Babu	Junior Assistant
143	Naveen Kumar S.	Junior Assistant
144	Vagdevi S.	Junior Assistant
145	Apeksha A. Shetty	Junior Assistant
146	Akella Surya Narayana	Junior Assistant
147	Rekha S. Devadiga	Junior Assistant
148	Vasudeva	Junior Assistant
149	Basavarajaiah Sangam	Junior Assistant
150	Shashirekha	Junior Assistant
151	Ramesha	Junior Assistant
152	Chandra Kumar	Junior Assistant
153	Ananda	Office Attendant (SG-I)
154	Ramesh	Office Attendant (SG-II)
155	Karunakara	Office Attendant (SG-II)
156	Chandravathi K	Office Attendant (SG-II)
157	Devadas	Office Attendant (SG-II)
158	Shashikala S	Senior Lab Attendant
159	Malathesh	Senior Office Attendant
160	Sumana G.S	Senior Office Attendant
161	Jyothi Raviprakash	Senior Office Attendant
162	Thushar	Office Attendant
163	Jyoti Chandras Anchan	Office Attendant

164	Bhavyashree	Office Attendant
165	Suprita A. Devadiga	Office Attendant
166	Ramesh R.	Office Attendant
167	Shobha S.	Office Attendant
168	Saritha Murial D'Souza	Office Attendant
169	Adarsh Kumar	Office Attendant
170	Rakshitha	Office Attendant
171	Govind Gopan	Office Attendant
172	Prathibha	Office Attendant
173	Akarapu Ramesh	Office Attendant
174	Suneetha	Office Attendant
175	Sanjay Shinnu Ambig	Office Attendant
176	Rahul Sedam	Office Attendant
177	Ravichandra C. Naik	Office Attendant
178	Jithesh	Office Attendant
179	Banoth Pavan Kumar	Office Attendant
180	S. Akash	Office Attendant

## 12. EVENTS

### 12.1 Foundation Day

NITK celebrated its 64th Foundation Day on 6th August 2023 by paying homage to its founding father Shri Srinivasa Mallya. Director Prof. B. Ravi hoisted the Institute flag and garlanded the founder's statue at the entrance gate. He recalled the remarkable life of Shri Mallya as a freedom fighter and later as the architect of modern Dakshina Kannada.



Faculty, staff and students of NITK gathered to reminisce institute's glorious history and to celebrate its achievements over the decades. Air Marshal B. U. Chengappa (retired), recipient of the Param Vishist Seva Medal (PVSM), Ati Vishist Seva Medal (AVSM), Vishist Seva Medal (VSM) and a distinguished alumnus of NITK (1969 graduate) was the chief guest. He unveiled a climbing wall called 'Aa-rohan' at the NCC unit on the campus to train cadets by officers led by Col. Anilesh Kaushik. Mr. Chengappa exhorted the students to explore defence adventure and leadership for an exciting and fulfilling life.





## 12.2 Convocation



The 21<sup>st</sup> Annual Convocation was held on November 4, 2023. Dr. G. Santhosh Reddy, Scientific Advisor to Defence Minister, Government of India, was the Chief Guest and Dr. C. Anandharamakrishnan, Director, CSIR-National Institute for Interdisciplinary Science & Technology, Thiruvananthapuram, was the Guest of Honour. 914 undergraduate, 961 postgraduate and 138 doctoral students received their degrees in this convocation.

## 12.3 BOG/Senate/BOS Meetings



The current Chairman of BOG, Padmeshri Shri Vijay Sankeshwar in conversation with Director Prof. B. Ravi

## 12.4 Technical Events

### DEPARTMENT OF CHEMICAL ENGINEERING

#### Workshops Organized

- 5-day National level training – workshop on “CBRN Disaster: Collaborative Resilient Strategies for Preparedness and Response”, 06<sup>th</sup> – 10<sup>th</sup>, March 2024, in association with INMAS – DRDO, at NITK Surathkal

### DEPARTMENT OF CIVIL ENGINEERING

#### Conferences

- 2<sup>nd</sup> International Conference on Construction Resources for Environmentally Sustainable Technologies (CREST 2023), Fukuoka, Japan by Babloo Chaudhary (Secretary General, TC), 20-22 November 2023.
- International Symposium on ‘Civil Engineering – From Time Tested to Testing Times’ by Sunil B.M. & B. Manu in association with Institution of Engineers India (IEI) on 17<sup>th</sup> November 2023.
- Two-Day International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges – 2023 (SIIOC – 2023) by 20<sup>th</sup> - 21<sup>st</sup> April 2023.

#### Workshops

- Raviraj H. M, “Transportation System Design”, NITK Surathkal, Nov 20-24, 2023.
- Sunil B. M. “One day workshop on “Role of Technology in Aerospace and Defense” Under Boeing Higher Education Relations on May 22<sup>nd</sup>, 2023 (through CDC) at NITK Surathkal.
- Sunil B.M. “Workshop on Aptitude for Students” on 5.8.2023 through CDC (Time Mangalore conducted for Students)
- Sunil B.M. “Workshop on Current & Future Trends in Aerospace Materials Additive Manufacturing in Aerospace” on 17<sup>th</sup> Sep. 2023 (Virtual mode) through CDC. [Boeing India]

### DEPARTMENT OF CHEMISTRY

#### Foreign Visitors to the Department

- To deliver the invited talk on the title “Development of chemical tools for covalent protein modification using metal-chelation assisted short peptide tag”, Dr. Vikarm Thimaradka, Kyoto University, Japan, 16.01.2024
- To deliver the ACS Seminar, Prof. Sara Skrabalak, Indiana University, USA, 28.02.2024

#### Indian Visitors to Department

- Dr. Mona Mendonca, Head, Dept. of History, St Aloysius (Deemed to be University), to conduct a half-day workshop titled “Developing corporate etiquette”, 08.03.2024.

- To deliver the invited talk on the title “The strategy of using earth-abundant metals as catalyst in organic Transformation”, Prof. Tarun K Panda, Professor in Chemistry and Dean (International Relations), Indian Institute of Technology Hyderabad (IITH), 04.12.2023.

#### **Workshop**

- A workshop titled “Developing corporate etiquettes”, Dr. Mona Mendonca, 08.03.2024

### **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

#### **STTPS (Short Term Training Programmes)/Schools: 01**

- A short-term Training program on “IoT and Embedded Systems” was conducted from 07-08-2023 to 11-08-2023 for the benefit of B.Tech, M.Tech and PhD. Students and faculty of local engineering colleges at CSE department NITK. Dr. Sourav Kanti Addya, Dr. Basavaraj Talawar (CSE Dept.), Dr. Nikhil K S (ECE Dept.) and Dr. Kiran Manjappa (IT Dept.) were the resource persons.

#### **Conferences: 01**

- 2<sup>nd</sup> ICDDS 2023 (International Conference on Data, Decisions and Systems) was held during 01 – 02 December 2023, Dr. Annappa B. was the General Chair and Dr. Sourav Kanti Addya and Dr. Pushparaj Shetty were the organizing chair of the Conference.

#### **Workshops: 02**

- Workshop on IPV6 Deployment held during 9-13<sup>th</sup> March 2024. Coordinators: Dr. Mohit P Tahiliani, Dr. Saumya Hegde and Dr. B.R. Chandavarkar.
- Workshop on 5G ORAN and ns-3 held during 14-15 March 2024 Coordinator: Dr. Mohit P Tahiliani.
- Workshop on AMD –Xilinx FPGA Toolflows held during 19-20 March 2024. Coordinator: Dr. Basavaraj Talawar.

#### **Expert / Technical Talk: 04**

- Expert Lecture on “Transforming diagnostics through AI” By Mr. Bargava Subramanian. Chief Product and Data Officer, 5c Networks held on 17-10-2023.
- Special Lecture on “Distributed Data Management” by Prof. S. Mohan, Vice Chancellor, Pondicherry Technical University on 08/01/2025 at 03-05 p.m.
- Expert lecture on “Graph Theory in quantum physics” by Dr. L Sunil Chandran, Professor, IISc, Bangalore held on 16-05-2023
- Expert lecture on “p-centered coloring” by Dr. Mathew C Francis, Associate Professor, ISI, Chennai held on 15-05-2023.

#### **Foreign Visitors to the Department: 02**

- Nalini Elkins, CEO, Inside Prodcuts, Inc., USA
- Mr. Michael Stephen Ackermann, Lead Network Engineer, Blue Cross Blue Shield, USA

### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

#### **Workshops**



- Two days online winter workshop on "Recent Algorithms for Forest Remote Sensing Applications (RAFRSA2023)" jointly organised by IEEE GRSS Bangalore section, NITK IEEE GRSS Student Branch chapter, Dept. of ECE, NITK Surathkal by Dr. Shyam Lal, November 6-7, 2023.

#### **Expert Talks**

- Expert talk on "AI for Societal Applications" by Makarand Tapaswi, Senior Machine Learning Scientist, Wadhvani AI, Assistant Professor, IIIT Hyderabad on 5<sup>th</sup> October 2023.
- Expert talk on "Computer Vision in Cars: Theory and Practice" by Aaron Sequeira, Texas Instruments Bangalore on 9<sup>th</sup> November 2023.
- Expert talk on "Signal Processing and Machine Learning for mmWave radars", by Akshay Kumar C., Texas Instruments Bangalore on 1<sup>st</sup> December 2023.

### **DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

#### **Short-Term Training Programmes**

- Master Trainers Training Programme on "Advanced Electrical Systems", Organized by Dattatraya N. Gaonkar & Dr. Prajof P. with Visveswaraya, National Training Facility for Skills for All (BMV NTFSA), Govt. of Karnataka from Jan 1<sup>st</sup> -20<sup>th</sup>, 2024

#### **Conferences**

- International Conference on "Advancements in Smart, Sustainable Energy Sources, Technologies, and Systems", organized by Dr. A. Karthikeyan & Dr. Yashwanth Kashyap during March 11-12, 2024.

### **DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES**

#### **Seminars (National)**

- Expert Talk by Prof. Sandeep Juneja on "The opportunities at TIFR, Mumbai", 3rd November 2023
- Expert Talk by Prof. Sandeep Juneja on "Some popular algorithms for foundational stochastic multi-armed bandit problems in sequential learning", 3rd November 2023
- Expert Talk by M.S. Raghunathan on "THE CONGRUENCE SUBGROUP PROBLEM", December 1st, 2023
- Expert Talk by M.S. Raghunathan on "MATHEMATICS Art that would be rather Science", December 1st, 2023
- National Mathematics Day, 22nd December 2023, (Commemorating the 136th birth anniversary of one of the greatest Indian mathematicians, Srinivasa Ramanujan).

### **DEPARTMENT OF MINING ENGINEERING**

#### **Conferences**

- International Conference on "Mining for a Greener Future: Technological Developments and Sustainable Practices (ICMFGF:2024)" held during 16-17 February 2024.

### **Workshops**

- A high-end DST-SERB Sponsored Karyashala (under Acceleratevigyan scheme) workshop on “Safety Data Analytics Applications in Mining and Other Core Industries”, during 06-12 March 2024.

### **Foreign Visitors to the Department**

- Dr. Bharath Kumar Belle, Adjunct Associate Professor, School of Mechanical and Mining Engineering. The University of Queensland, Australia visited the Department in the month of March 2024.

## **DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING**

### **STTPs/Schools/Conferences/Seminars/Workshops, etc.**

- 21-day workshop on Master Trainer Training Program (MTTP) on Advanced Welding Systems, sponsored by Bharat Ratna M Visvesvaraya National Training Facility for Skill for All (BMVNTFSA), Ministry of Skill Development, Govt of Karnataka, 22/01/2024 to 10/01/2024, Coordinators: Dr Udaya Bhat K., Dr. Devadas Bhat, Dr. Vijay Desai, Dr. Vijesh V, Dr. Muralidhar.
- Prof. T. RAMCHANDRAN LECTURE SERIES, 31<sup>st</sup> Lecture by Prof. B. Ravi, Director, National Institute of Technology Karnataka, Surathkal Topic: "ITfying Core Engineering: Lessons from E-Foundry Experience", 13<sup>th</sup> November 2023
- 32<sup>nd</sup> Lecture by Dr. R. Raghavendra Bhat General Manager (retd.) and Advisor, Menon Pistons Ltd, Kolhapur Topic: “Failure Analysis of Aerospace Components”, 13<sup>th</sup> November 2023
- Special Talk by Dr. Maya K Kini, IIT Bhubaneshwar on "Dislocation plasticity in nanotwinned silver" on 26-10-2023.

### **Foreign Visitors to the Department**

- Dr. Patrick Chapon, Senior Expert, France Horriba, visited and gave a talk on "Fundamentals of GDOES" on 20<sup>th</sup> January 2024.

## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **Conferences**

- Dr. Kumar G N, Dr. N. Gnanasekaran, Dr. Ranjith M, Dr. Arumuga Perumal D and Dr. Parthasarathy S, Recent Advances in Modelling and Analysis of Thermal and Energy Systems (Ramates 2023), 10 May 2023 - 12 May 2023.

### **Workshops**

- Prof. Hemantha Kumar, Dr. Ranjeet Kumar Sahu and Prof. Debashisha Jena, Vehicular Vibrations Control with Modern Suspension Systems, 21 to 25 August 2023.
- Dr Nikhil K S, Dr P S Suvin, Dr Sharnappa J, Dr Deepak Kumar, Dr Abhilash Singh, Safe and sustainable aviation and UAVS, 11 to 15 March 2024.

### **Foreign Visitors to the Department**

- Prof. Torii S, from Kumamoto University, Japan, was invited by Prof. Veershetty G, Dr. Arumuga Perumal D for an Expert Lecture from 26 December 2023 to 30 December 2023

## DEPARTMENT OF PHYSICS

### Seminars

- Dr. V Sreenath and Professor Ajith K M, National Science Day Celebration, 28/02/2024 - Seminar cum Workshop with school students

### Indian Visitors to the Department

- Dr. Abhiram Soori, Asst. Professor, University of Hyderabad, 20/06/2023 - Invited Talk
- Dr. Rathul Nath Raveendran, Research Associate, Indian Association for the Cultivation of Science, Kolkata, 16/10/2023-19/10/2023 - Research interaction with Ph.D Scholars
- Mr. Varun R P, DTU, Denmark, 3/01/2024 - Expert Lecture
- Dr. Vipin Amoli - Asst. Professor, Rajiv Gandhi Institute of Petroleum Technology, Amethi, UP, 01/03/2024-05/03/2024 - Expert Lecture
- Dr. Tathamay Basu, Asst. Professor, Rajiv Gandhi Institute of Petroleum Technology, Amethi, UP, 01/03/2024-05/03/2024 - Expert Lecture
- Mr. Hashir Chillidath, Founder & CEO of an AI start-up for learning called Grow AI, 20/03/2024 - Expert Lecture

## SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT

### STTPS (Short Term Training Programmes)/SCHOOLS

#### Dr. Sheena

- A short-term training programme of five-day duration titled, "Relationship Selling and Technical Sales" was conducted for the MBA students of NITK from 05-01-2024 – 09-01-2024.
- A short-term training programme of five-day duration titled, "Contemporary Skill Development in Effective Leadership, Team-Building and Communication" was conducted for the MBA students of NITK from 20-03-2023 – 24-03-2023.

#### Dr. Bijuna C. Mohan

- Two awareness programs on design for MSMEs were conducted on 15<sup>th</sup> March 2024 and 27<sup>th</sup> March 2024. The programs were sponsored by the Ministry of MSME.

### Conferences

- Dhishna P convened the Two-Day International Conference on Gender Studies from 21 to 22 September 2023, hosted by the School of Humanities, Social Sciences & Management, National Institute of Technology Karnataka.

### Workshops

**Prof. Shashikantha Koudur**

- Workshops organised (as PiC, SRC): Mind Your Money (on Financial Literacy for Teaching and non-teaching staff) on 15 February 2024

**Dr. Sheena**

- 20 one-day workshops conducted for various engineering colleges in the states of Karnataka, Kerala and Tamil Nadu on Virtual labs as the Outreach Coordinator, Centre for System Design, NITK from April 1<sup>st</sup>, 2023 – March 31<sup>st</sup>, 2024.

**Dr. Savita Bhat**

- School of HSSM, NITK, hosted a one-day workshop on “Strategies to Increase Millet Consumption among Youth in Dakshina Kannada: The ICSSR-sponsored workshop under Short-Term Empirical Research Projects 2023–24”, on March 7, 2024. The workshop was attended by 50 participants. The workshop was organized by Dr. Savita Bhat.

**Dr. Bijuna C. Mohan**

- School of Humanities Social Sciences and Management hosted a Five-day MDP on Relationship selling and technical sales” from 5<sup>th</sup> to 9<sup>th</sup> January 2024 at NITK Surathkal. The workshop was attended by 40 participants which included the MBA students, research scholars, and faculty of the School of Management. The workshop was organised by Dr. Bijuna C Mohan and Dr Sheena. The resource person was Prof. Jay P Mulki, D” Amore-Mc Kim School of Business, Northeastern University, Boston.

**Faculty Development Programme**

**Dr. Sheena**

- Three Management Development Programmes of five-day duration were conducted for the newly joined recruits of MRPL from October 2023 till December 2023.

**Stress Management Training and Other Programs**

**Prof. Shashikantha Koudur**

- Campus Bird Count (As PiC, SRC): a Campus-wide event for staff (open to the interested public) on bird watching and bird count on campus and its vicinity, organised on 18 February 2024. This was part of a global event titled Global Backyard Bird Count. Around 70 people participated with the number of species observed being 103 in 3 hrs.

**DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING**

**STTPs/Schools/Conferences/Seminars/Workshops etc.**

- Title of the Event: One day Workshop on “INNOVATIVE CONCEPTS IN OCEAN ENGINEERING”.  
Coordinator/Co-Coordinator (as in the Event brochure): Dr. Manu  
Held during: 28<sup>th</sup> July 2023  
Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation (not from NITK): Prof. S.A Sannasiraj, Professor, IIT, Madras,

Retd. Prof. Arkal Vittal Hegde, NITK, Surathkal,

Dr. Kumaran Vishwanathan., Scientist,

Dr. Sandesh Upadhyay

Dr. Ramesh N., Scientist E, CWPRS, Pune

- Title of the Event: GIAN Course on "Ocean Wave Energy Conversion Technology and Modelling Techniques". Coordinator/Co-Coordinator (as in the Event brochure): Dr. Debabrata Karmakar Held during 27th November - 1st December 2023 Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation (not from NITK): Dr. Matt Folley, Director, Applied Renewables Research Limited, United Kingdom.
- Title of the Event: One day Workshop on "INNOVATIVE CONCEPTS IN OCEAN ENGINEERING". Coordinator/Co-Coordinator (as in the Event brochure): Dr. Manu Held on 28<sup>th</sup> July 2023. Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation (not from NITK): Prof. S.A Sannasiraj, Professor, IIT, Madras, Retd. Prof. Arkal Vittal Hegde, NITK, Surathkal, Dr. Kumaran Vishwanathan., Scientist, Dr. Sandesh Upadhyay, Dr. Ramesh N., Scientist E, CWPRS, Pune.

#### **Foreign Visitors to the Department**

- Dr Matt Folley, Director of Applied Renewables Research Limited Northern Ireland, United Kingdom visited on 27<sup>th</sup> November.





## 13. ASSOCIATED CENTERS/UNITS

### 13.1 NCC

2 Kar Engr Coy NCC is located at NITK Surathkal since its inception in 1963. It was almost started in parallel with the institute. Ours is the army wing of NCC. There are regular parades in which cadets are taught marching skills. Discipline is given the highest priority. Cadets voluntarily participate in various social service activities like Swachh Bharath, Coastal Cleaning, Disaster Management, Blood Donation camps, etc. Cadets actively participate in Independence Day and Republic Day Parades on the 15th of August and 26th of January, respectively.







## 13.2 NSS (National Service Scheme)

### MEGA Cyclothon for a Cause - April 29, 2023.

**Motto** – “Our Step towards Polling Booth”

It is important for every citizen to remember that voting is not just a right, it's a Responsibility. This is the cause we NSS NITK organized a Cyclothon Event under the guidelines of the Mangalore district election committee. This was our small step towards society to showcase the importance of voting. By making people understand the importance and potential impact of their vote, we wanted them to make an informed choice about participating in this crucial democratic process.

### YOGA Session – June 03, 2023.

**Motto** – "Yoga for peaceful mind and healthy body!!" –

Believing that yoga is a perfect way to unwind and connect with our inner selves, we NSS NITK organized a yoga session that included a variety of yoga postures, breathtaking exercises and meditation techniques under the guidance of an instructor who guided the students throughout. Yoga can be a journey of self-discovery and exploration, both physically and mentally. Yoga's combination of physical movement, breathing techniques, and meditation promotes deep relaxation and stress relief. Group yoga classes offer social interaction and a sense of belonging.



### Saplings plantation and cleaning drive – On account of “World Environment Day”

We at NSS NITK organized a sapling plantation and cleaning drive at NITK, Mangalore Coordinating with Nations Volunteers India, Yuvanika Foundation and STEP NITK. This drive was a great way to improve the environment, raise awareness about the importance of trees, and get people involved in their communities. Sapling plantation drives can be a valuable educational experience, they can teach people about the importance of trees the benefits of tree planting, and how to care for trees properly, participating in a sapling plantation drive is a great way to get some exercise and fresh air, while also making a positive impact on the environment.





### Independence Day Celebrations at NITK Kannada Medium School

This year on the eve of Independence Day the volunteers of NSS NITK visited NITK Kannada Medium School and conducted competitions for the school students and distributed prizes to them. This was concluded with



numerous activities which not only made students know the importance of this day but also encouraged their talent to showcase. Activities included singing, art, quizzes, games and many more and the best talents were encouraged with prizes.



### SWACHHBHARAT ABHIYAN - October 5, 2023

**Motto- "Spreading awareness and serving society, one cleanup at a time"**



We NSS NITK in coordination with NITK SEVADAL organized a Special campaign 3.0 with the motto SWACHHATA HI SEVA, revving up for garbage-free India. Through our awareness program, we tried to address multiple goals simultaneously, creating a positive impact on public health, the environment, the economy, and community well-being. Campaigning in the streets of Surathkal made it more efficient in reaching people and spreading the

cause.



### BEACH CLEANUP DRIVE 2.0 - OCTOBER 16, 2023.

**MOTTO – "SWACHHATA H ISEVA"** We at NSS NITK organized a beach cleanup drive with the motto SWACHHATA HI SEVA for institutionalizing



Swachhta and minimizing pendency for a clean India". The whole motive of this drive was to raise awareness about the importance of cleanliness and hygiene and encourage people to take responsibility for keeping their communities clean and make a positive difference. Raising awareness was carried out by participating and being a hand towards change with this cleanliness drive.



### AMRIT KALASH YAATRA - November 07, 2023

#### Motto – “Meri Maati MeraDesh”

We NSS NITK organized AMRIT KALASH YAATRA with a motto capturing the essence of our beautiful nation at “Meri Maati MeraDesh”. The event went



successful with the participation of all our NSS volunteers, NITK staff and our respected Director and Deans. This was a great opportunity for all of us to come together and celebrate our nation's rich history and heritage. It is also a time to reflect on the sacrifices that have been made for our freedom and to pledge to work together to build a better future for India.



### NATIONAL YOUTH DAY CELEBRATION - January 12, 2024.

#### Motto: 'Arise, awake, and stop not till the goal is reached.'

—Swami Vivekananda.

Celebrated a day dedicated to radiating the vibrant energy and transformative potential of our youth. Everyone was welcome to join us for a motivating session filled with inspiring talks, performances, and the timeless wisdom of leaders.



Important guests in the event:

- Swami Jitakamanandaji, spiritual insights resonated deeply.
- Prof. B Ravi, your leadership is truly inspiring.
- Swami Sarvasthanandaji, your wisdom enriched our minds.
- Capt. Ganesh Karnik, your presence added a unique perspective.

All their speeches, guidance, and participation made the occasion truly special, leaving a lasting impact on our college community. A special vote of thanks to Utkrishta Bharat for the invaluable collaboration that made the celebration possible.



### Embracing Hope, Changing Lives! - MARCH 2<sup>nd</sup> -3<sup>rd</sup>

On March 2nd-3rd, NITK's NSS Unit and DKMS, BMST joined forces for an impactful event, focusing on stem cell donation and battling blood-related diseases. Our collaborative efforts featured informative sessions and a registration drive, attracting 270 selfless individuals eager to potentially save lives. Heartfelt thanks to our dedicated volunteers and Dr. Veershetty for guiding us.

### Beach Clean Up Drive-

On March 9th, 2024, the Yoga Club organized a beach cleaning event in collaboration with the National Service Scheme (NSS). The event aimed to not only clean the beach but also to promote coastal calming events. The volunteers from both the Yoga Club and NSS joined forces to clean the beach area thoroughly. They picked up trash, removed debris, and worked together to ensure the beach was left pristine. These sessions aimed to promote mindfulness, relaxation, and a deeper connection with nature, complementing the beach cleaning activities.



**Beach cleaning:** The combined efforts resulted in a significant cleanup of the beach, making it safer and more pristine for tomorrow's event.

**Sand leveling:** In addition to cleaning, the volunteers also leveled up the sand, enhancing the beach's aesthetic appeal and usability.



### NSS Anual Camp 2024

**Theme: \_Empowerment Odyssey**

“Building Character, Community Service – Atatime”

#### Day 1- Inauguration

The NSS camp commenced with a sense of anticipation and trepidation among the participants, as they gathered for the inaugural ceremony in the seminar hall at evening 4:00 pm on March 4th, 2024 with a lamp



lightning by respected Dr. KV Rao sir along with the other guests. Eager faces filled the venue, buzzing with excitement and a hint of apprehension about the days ahead. As they awaited the commencement of activities, thoughts swirled about the upcoming experiences, painting a picture of what was to come.



#### Day 2 – School Visit and Activities



The first full day of the NSS camp began with a visit to a local primary school in Pilikula, where engaging interactions and educational activities awaited. A quiz session, debate session, distribution of prizes and lively exchanges with the school children marked the morning, followed by an expert session by Sri Yathish Baikampady in the afternoon. Despite some participants opting to skip the latter part due to fatigue,



the day concluded with spirited games and entertainment, blending elements of learning and leisure.

### Day 3 - Community Service and Bonding



The day commenced with an early rise at 5:30 AM, as participants embarked on a refreshing jog amidst the crisp morning air, fostering camaraderie among newfound NSS companions. Engaging in community service through shramadhan activities as requested by the school authority at the primary

school, exhaustion set in, yet determination prevailed as expert talk by Sri Ramakrishna Maration Plant diversity in western Ghats and recreational games filled the day.



### Day 4 – Exploration and Learning

Another early start greeted the participants, as they ventured into a morning jog followed by a visit to a science exhibition at the planetarium. Despite the scorching afternoon sun during a medicinal



garden tour, spirits remained high amidst exhaustion, showcasing resilience and a thirst for knowledge. All the volunteers had a good



interaction with the unexpected yet inspiring guest IAS Mukul Jain sir to the camp. Later all the volunteers participated in the participated in the shramadhan at Pilikula medicinal garden.

### Day 5 – Adventure and Reflection



An adventurous morning trek through the Western Ghats invigorated participants, transforming initial apprehension into exhilaration amidst nature's beauty. A visit to the zoo provided further exploration, followed by another expert talk by SMT Vineetha K. Amidst moments of mischief and camaraderie, bonds strengthened, and experiences forged memories to cherish.





### Day 6 – Shramadhana, Culinary Endeavors and Shiver Jyothi

As the camp approached its conclusion, participants took charge of the morning jog with newfound resolve, shramadhan followed by a heartfelt gesture of cooking for fellow NSS mates. Also, another interesting and most awaited expert session by Dr Manoj Louis took place in the afternoon where all the volunteers were involved in every task and



performed together as a team. Amidst the joy of culinary success, cultural performances and reflections on shared experiences, the day epitomized the spirit of camaraderie and service that defined the NSS camp by offering prayers to the INDIA with diyas – “Shiver Jyothi” followed by traditional and cultural performances by the volunteers.



### Day 7 – Valedictory



The seventh and final day of our NSS annual camp valedictory commenced with honorable guests – Prof B Ravi, Director NITK, Prof A C Hegde, Dean SW-NITK and Dr. Arvind bhat KG, Dental surgeon, Mangalore, at 10 o'clock. The morning was adorned with the beauty of the Western Ghats, where volunteers gathered flowers and leaves, crafting handmade flower bouquets for each guest, marking a special memory. The program unfolded with inspiring speeches from the

volunteers, sharing experiences and followed by the DSW and the Director with a motivational insight. A highlight was the prize distribution, recognizing the best volunteer, team, and cultural performances. The day concluded with a sense of fulfillment, marking the successful culmination of the camp's objectives.



In conclusion, the NSS camp encapsulated a journey of self-discovery, camaraderie, and service, leaving indelible memories and fostering lasting friendships. As participants dispersed, the bonds forged amidst shared challenges and triumphs served as a testament to the transformative power of community engagement and collective endeavor.

## 13.3 Central Research Facility (CRF)

### • Exhibitions:

- ❖ CRF AS Exhibitor at AM 3D Aero 2023 Held during 13th & 14th December 2023 organised by American Society of Mechanical Engineers (ASME) India @ M. S. Ramiah Institute of Technology, Bengaluru.
- ❖ CRF exhibited its strengths at NITKconnect 23 held on 4th February 2024
- ❖ The NITK CRF building photo was on the front cover of Scopus Indexed Q2 journal, “Indian Concrete Journal”.

- ❖ CRF as an exhibitor at MAHE Manipal at the International Conference of Nanoscience and Technology

- **External visitors who visited CRF from July 2023 to March 2024:**

- Details:**

- ❖ Titan India R&D team visited CRF on 21<sup>st</sup> and 22<sup>nd</sup> February 2024
  - ❖ NIT Calicut delegates visited CRF on 24<sup>th</sup> and 25<sup>th</sup> January 2024
  - ❖ 30 Delegates of the Master Teacher Training Program visited CRF on 20<sup>th</sup> January 2024
  - ❖ Dr. Umamaheswaran, a Distinguished Scientist at ISRO & Former director of ISRO's human space flight center visited CRF on 29<sup>th</sup> December 2023
  - ❖ Professor Tori from the Kumamoto University Japan, Visited CRF on 29<sup>th</sup> December 2023
  - ❖ Dr G. Satheesh Reddy visited the CRF during 21<sup>st</sup> Annual convocation of NITK on 4<sup>th</sup> November 2023
  - ❖ More than 200 Pre-University students and graduate degree students visited CRF between December 2023 to February 2024.

### 13.4 Yoga Centre

A full-fledged Yoga center is running as per the guidelines of NEP-2020. 1<sup>st</sup> year B.Tech. students can opt for a yoga certificate course under the guidelines of a certified yoga practitioner. The course is for 1 credit upon successful completion.

### 13.5 Science and Technology Entrepreneurs' Park (STEP):

- **Training Activities:**

- ❖ One Month Internship in Image Processing – 68
- ❖ One Month Internship on Machine Learning -14
- ❖ One Month Internship on EV Design Using Matlab - 42
- ❖ One Month Internship on Industrial Internship on Iot with Machine Learning - 54
- ❖ One Month Internship on Industrial Internship on Full Stack Web Development - 103
- ❖ One Month Internship on Industrial Internship Artificial Intelligence and Python Full Stack - 77
- ❖ One Month Internship on Full Stack Development – 20
- ❖ One Month Internship on Artificial Intelligence – 52
- ❖ Basic Computer Course- 180
- ❖ One Month Internship on Industrial Internship on Iot with Machine Learning – 20
- ❖ One Month Internship on Java Full Stack Development - 13
- ❖ Short-Term Course on Pcb Design Using Open-Source Tools for Beginners -33

- **Various Activities:**

- ❖ On 15<sup>th</sup> May 2023, Arun M. Isloor, Professor in Charge at NITK-STEP, gave a talk on IPR and Startups as Pillars of Academia, organized by MIT Manipal.
- ❖ A talk on "Research, Innovation, and Startups at Higher Educational Institutions" was given by Arun M. Isloor, Professor in charge of NITK-STEP, as part of the YUVA SANGAM exchange program. 45 students from Bhopal visited NITK on May 26<sup>th</sup>, 2023.

- ❖ On July 7, 2023, STEP organized "Mind Magic: Mentalism Show & Motivational Talk on the Miraculous Power of the Subconscious Mind" by Kudroli Ganesh. Approximately 68 students, faculty, and STEP Incubatees participated.
- ❖ On July 25th and 26th, 2023, NITK and the National Innovation Foundation (NIF), an autonomous body of DST, Government of India, jointly organized an 'INSPIRE - MANAK' workshop. This mentoring workshop was attended by 76 shortlisted high school students from across Karnataka. The program was coordinated by Prof. Arun M Isloor, who is the Professor In-Charge of NITK-STEP.
- ❖ On July 3rd, 2023, Professor B. Ravi, the esteemed director of the National Institute of Technology Karnataka (NITK), paid a visit to NITK-STEP, the Science and Technology Entrepreneurship Park. Professor Arun M. Isloor, the Head of NITK-STEP, extended a warm welcome to Professor Ravi and offered an introduction to the park, highlighting its activities and achievements. Following the introduction, Prof. Ravi interacted with the incubates of the park, sharing his wealth of experience and expertise with them. The interaction proved to be highly beneficial for the incubates, who gained valuable insights and knowledge from Professor Ravi's experiences.
- ❖ On the 7th of July 2023, the Science and Technology Entrepreneurs Park (STEP) organized a program titled "Mind Magic," which comprised a mentalism show and a motivational talk on the miraculous power of the subconscious mind delivered by Kudroli Ganesh. The event was attended by a total of 68 individuals, including students, faculty members, and STEP incubatees.
- ❖ The Student Entrepreneurs Summit 2023 was held on October 7th, 2023, at the Besant campus in Bondel, Mangalore, organized by MSNIM-NITTE. Arun M Isloor, the Professor I/C of NITK-STEP, was invited to participate in the panel discussion as a member of the panel.
- ❖ On October 16, 2023, Shri Madhwa Vadiraja Institute of Technology and Management in Bantak, Udupi hosted a national Innovation Day event. Arun M Isloor, the Professor in Charge of NITK-STEP, was invited as the chief guest for the event. He also had an interaction session with around 200 students who participated in the event.
- ❖ On October 18, 2023, Swastika National Business School in Urwastore, Mangalore introduced a new club named after Swastika UdyamShala Entrepreneurs Club. Arun M Isloor, the Professor in Charge of NITK-STEP, was invited as a guest for the event. He also conducted an interaction session with the students who participated in the event.
- ❖ On October 29, 2022, Professor Arun M Isloor, NITK-STEP's Professor I/C, participated in a Business Tonic Live session on MSMEs and Startups as Growth Engines of Economy, organized by Namma Kudla.
- ❖ Swastika National Business School in Urwastore, Mangalore organized a weekly series called Udyamshala where Professor Arun M Isloor, NITK-STEP's Professor I/C, delivered a talk on innovation for entrepreneurs.
- ❖ On the 21st of November 2023, the National Institute of Technology Karnataka (NITK) announced the appointment of Prof. Subray R Hegde as the new Professor I/C. The outgoing Professor I/C of NITK-STEP, Prof. Arun M Isloor, transferred all duties and responsibilities to Professor Hegde while also providing him with an update on the ongoing activities of STEP.
- ❖ In December, Prof. Subray R Hegde, who oversees the Science and Technology Entrepreneurs Park (STEP), met with all the incubatees at their convenience to improve the relationship between them and STEP. These interactions allowed Professor Hegde to offer his support to the incubatees and motivate them in their endeavors.
- ❖ On December 18, 2023, Shri K. Ajit Kumar Rai visited NITK and had a productive interaction with our incubatees at STEP.

- ❖ On 9th January 2024, Mr Arvind Kumar from BITS Pilani, KK Birla Goa Campus, visited STEP. Prof. Subray R. Hegde, who is in charge of STEP, welcomed him and talked to him about the activities of STEP. Currently, Mr Arvind Kumar is working on a research project sponsored by DST-PCPM. The project is about the impact of indigenous S&T innovations developed by start-ups incubated in academic institutes in India.
- ❖ Under the guidance of our Professor Subray R Hegde NITK-STEP's Professor I/C On January 12th, 2024, 178 students from Shri Subrahmanyeswar Pre-University College in Kukke Subrahmanya, Kadaba completed a three-month Basic Computer Application Systems course. The course was organized by NITK-STEP and the Department of Information Technology, NITK Surathkal. After finishing the course, STEP conducted written and practical exams for all students and awarded them certificates. Ningaih (Secretary S S P U College Subramanya), Dr Dinesh Naik (Assistant Professor Dept of IT NIT Surathkal), Mr. Sujithraj I and, Ms. Swapna, from STEP Mr. Rajesh M Katte (PTA President S S P U College Subramanya), and Mr. Somashekhar Nayak (Principal S S P U College Subramanya) were present during the event.
- ❖ On 18th January 2024 Karnataka Digital Economy Mission (KDEM) organized a discussion on Setting Technology Vision Roadmap for our emerging cluster in which Professor Subray R Hegde NITK-STEP's Professor I/C was invited to participate.
- ❖ On March 15, 2024, Professor Narayan K and his team from The National Board of Accreditation (NBA) conducted a visit to STEP and engaged in discussions with the incubatees. The purpose of their visit was to evaluate the incubation program and its effectiveness. During the interaction, the NBA team gained insights into the entrepreneurial ecosystem at STEP and provided feedback to the incubatees on their ventures. This visit marks a significant milestone in STEP's journey towards excellence in nurturing startups and fostering innovation.
- ❖ On the 22nd of March 2024, undergraduate students from Poorna Prajna College, Udupi, paid a visit to the Science and Technology Entrepreneur's Park (STEP). Professor Subray R Hegde, the Professor in Charge at NITK-STEP, extended a warm welcome to the students and faculty members. He provided a comprehensive overview of the activities conducted at STEP. Subsequently, the students engaged in insightful interactions with the resident incubates of the park. The visit culminated with a tour of all the startup units housed within STEP.
- **Startups By NITK Faculty Members:**
  - Dr. Pathipati Srihari - (Sri Shasha Prayathi Technologies Limited)
  - Dr. B Dastagiri Reddy - (Dri-Ev Tech Solutions Pvt Ltd)
  - Dr. Mohit Prakash Tahiliani - Stackwalk Technologies Pvt. Ltd
  - Dr. Shyam Lal, Dr. Sandeep Kumar, Dr. Sushil Kumar Pandey - (Aiquantum Smart Solutions Pvt. Ltd.)
  - Dr. Karra Ram Chandra – (Rock Tech Solutions Lib)
  - Dr. Poornesh – (Tapas Nano Tech Pvt. Ltd)
- **Existing Alumni Entrepreneurs:**
  - Kambala Solution Pvt. Ltd
  - Tech Millennials Pvt. Ltd.
  - Sasyaani Pvt. Ltd.
  - Vishuddhi Aqua Tech Pvt.Ltd



## 14. CAMPUS FACILITIES

### 14.1 Hostels

National Institute of Technology Karnataka, Surathkal (NITKS) is an autonomous Institute of the Government of India under the Ministry of Education imparting technical education. National Institute of Technology Karnataka, Surathkal is one of the “Institutes of National Importance” declared under the NIT Act – 2007 (Act No.29 of 2007). The NITK Hostel Trust looks after NITK Hostel activities.

All students including foreign students are accommodated in hostels as per the following details:

Total number of boys’ hostel = 13

Total number of girls’ hostel = 06

Total capacity for boys = 4473

Total capacity for girls = 1343

Sl. No.	Block	No. of Students	No. of Rooms
1	Karavali (Block-1)	220	77
2	Aravali (Block-2)	235	80
3	Vindhya (Block-3)	255	130
4	Satpura (Block-4)	255	129
5	Nilgiri (Block-5)	247	247
6	Pushpagiri (Block-PG)	287	149
7	Brahmagiri (Block-PG New)	464	464
8	Sahyadri (Block-7)	314	158
9	Trishul (Block-8)	314	157
10	Everest (Mega Tower- 1)	503	507
11	Himalaya (Mega Tower- 2)	503	510
12	Kailash (Mega Tower- 3)	503	504
13	Shivalik (Block-11)	373	200
14	Ganga (GH -1)	60	39
15	Kaveri (GH-2)	91	49
16	Yamuna (GH-3)	265	153
17	Sharavathi (GH-4)	308	331
18	Netravathi (GH-5)	241	253
19	Godavari (GH-6)	378	212
<b>Total</b>		<b>5816 (B-4473, G-1343)</b>	

Two new hostels viz Shivalik (Block-11) with a capacity of 600 for boys and Godavari (GH-6) with a capacity of 424 for girls started in the academic year (2023-24). These hostels were dedicated to the nation on 20<sup>th</sup> February 2024, by the honorable Prime Minister of India (virtually).

#### 1. Hostel Mess:

11 messes are operating in various hostel blocks to cater to the needs of inmates, out of which one vegetarian and one non-vegetarian mess are running in the girl's hostel and four vegetarian messes and five non-vegetarian messes are running in the boy's hostel. All the messes are provided with the



necessary infrastructure to cater to the different food habits of the students drawn from various parts of the country.

**Total number of messes:**

**Name of the Mess**

- Karavali (Block-1 non-Veg)
- Aravali (Block-2 non-Veg)
- Vindhya (Block-3 Non-Veg-Outsource)
- Satpura (Block-4 Non-Veg-Outsource)
- Nilgiri (Block-5 Non-Veg-Outsource)
- Pushpagiri (Block – PG, Veg -Outsource)
- Sahyadri (Block-7 Veg)
- Thrishul (Block-8 Veg-Outsource)
- Mega Block Mess (Veg-Outsource)
- GH I Mess, Ground Floor (Veg-Outsource)
- GH II Mess, First Floor (Non-Veg-Outsource)

All messes are managed by Hostel Administrative, with the active participation of the student mess managers and Mess council for preparation of the menu and other issues. Monthly mess bill accounts are audited by verifying the mess cards, stock sheets, purchase registers, mess membership issue register, mess bill calculation registers, petty cash book with vouchers and other records connected with monthly mess bill. The rationalization method is adopted to avoid the rate difference problem of various messes.

Total mess membership varies every month. Out of the 11 messes Vindhya (Block-3), Satpura (Block-4) mess, Nilgiri (Block-5) mess, Trishul (Block-8) mess, Pushpagiri (Block-PG) mess, Mega Mess (Chaitanya) and Girls hostel messes are outsourced to private mess contractors.

## **2. Hostel Amenities**

During this academic year, the cable TV facility has been extended to all the hostels. All the Hostel Rooms (Boys and Girls) have continuous high-speed uninterrupted internet facilities to carry out their studies and research.

## **3. Hostel Activities**

### **a. Crescendo Committee**

Crescendo, a committee that organizes co-curricular activities for the students, is managed by a group of elected students from the hostel representatives. The Crescendo has organized the AURORA DANCE EVENT on February 4<sup>th</sup>, 2024, PANACHE on March 17<sup>th</sup>, 2024, and the Coliseum Event from 15<sup>th</sup> March to 17<sup>th</sup> March 2024 which attracted many students from various branches for the competitions. The winners were awarded with attractive prizes and certificates.

### **b. Phoenix committee**

The Phoenix Committee is another student committee that looks after the sports activities for the residents of the hostels and provides indoor game facilities to them. Phoenix is managed by a group of elected students from the hostel representatives. The Phoenix Recreation Committee organized the Fresher' Cup from November 17<sup>th</sup> to 19<sup>th</sup> 2023, Flood Lights Tournament from January 19<sup>th</sup> to 21<sup>st</sup>, 2024, Interbranch Tournament from 15<sup>th</sup> March to 17<sup>th</sup> March 2024 and Hostel Day celebrated

on 16<sup>th</sup> March 2024. All the events attracted many students from various branches for the competitions. The winners were awarded with attractive prizes and certificates.

**c. Task Force**

Task Force is a platform for students to showcase their talent in administrative work at NITK Surathkal. It has been instituted in the NITK Hostel Administration to serve the well-being of all students. The members of the task force are elected by the hostel representatives.

**4. Mess Concession Scholarship**

Mess Concession scholarship is offered to residents, who need financial assistance to continue their studies in the Institute. This financial assistance will be managed by the fund raised by the contribution from the hostellers i.e. 10/- per semester along with hostel mess fees. The concessions are granted based on the information furnished by the individual applicants in the prescribed applications. The mess concession grantee must be regular in attendance and would have shown good performance in academics. The amount granted above will be credited to the mess bill account of the respective student, and will not be paid in cash.

**5. Celebrations**

Several festivals like Holi, Diwali and Ganesh Chaturthi are celebrated by hostellers. The expenses were managed by the fund raised by contribution i.e. Rs. 40/- from the hostellers.

**6. Medical Emergency**

During the year under report, Medical Relief to the tune of ₹12,02,842/- has been sanctioned to students of the hostel blocks as per the recommendation of the Block Warden and Institute Resident Medical Officers, for their hospitalization in nearby Surathkal/Mangalore hospitals for outpatient treatment. Each student is eligible for medical reimbursement up to Rs. 25,000/- per annum.

**7. Hostel Automation**

To improve the accounting process, computerization of accounts in the hostel has already been initiated. A new website and hostel model has been developed for the room booking and mess selection for the students. Using this new hostel portal students can book the room and mess of their choice online. Students are not required to be physically present in the hostel office to get the rooms and mess as it was done previously.

To receive feedback related to messes and maintenance issues, an online complaint registration system is also initiated.

**8. Auditing**

All the accounts of the hostels are duly audited by a Chartered Accountant every year.

**9. Laundry Facility**

A Laundry Facility was established in Mega Tower II (Himalaya) of the NITK Hostels for the benefit of the students. The laundry facility was a total of 24 Lakh project which was funded by Karnataka State Minerals Corporation Limited, Bengaluru under the Project entitled “Laundry Facility in the Hostels of NITK Surathkal”.

## 10. Hostel Office Bearers

Prof. Pushparaj Shetty D is the Professor in-charge of Hostels, NITK Surathkal. Presently, the following faculty members are rendering their services as wardens in different Hostel Blocks as mentioned against their names:

**Prof. B Ravi, Director, NITK Surathkal**, is Ex-Officio President of NITKS Hostels. He being the President of hostels will be giving guidance to the Council of Wardens from time to time for the smooth administration and functioning of the hostel activities.

- |     |                            |   |
|-----|----------------------------|---|
| 1.  | Dr. Pushparaj Shetty D     | : Professor In-charge Hostels   |
| 2.  | Dr. Ramesh M. R.           | : Finance Warden  |
| 3.  | Dr. Prabu K                | : Karavali (Block-1)  |
| 4.  | Dr. Debabrata Karmakar     | : Aravali (Block-2)/ Student Activity   |
| 5.  | Dr. Mandeep Singh          | : Vindhya (Block-3)   |
| 6.  | Dr. Ravi Raushan           | : Satpura (Block-4)   |
| 7.  | Dr. P. S. Suvin            | : Nilgiri (Block-5)   |
| 8.  | Dr. Vignesh Kumar V        | : Sahyadri (Block-7)  |
| 9.  | Dr. Pavan G. S             | : Trishul (Block-8)   |
| 10. | Dr. Bijay Mihir Kunar      | : Everest (MT-1)  |
| 11. | Dr. Jothi Ramalingam       | : Everest (MT-1)  |
| 12. | Dr. Mruthyunjaya Swamy K B | : Himalaya (MT-2)   |
| 13. | Dr. Kiran M                | : Himalaya (MT-2)/Student's Welfare   |
| 14. | Dr. Sandeep Kumar          | : Kailash (MT-3)  |
| 15. | Dr. Gopalakrishna B. V     | : Kailash (MT-3)  |
| 16. | Dr. P. Parthiban           | : Pushpagiri (Block-PG)   |
| 17. | Dr. Vinoth S               | : Brahmagiri (Block- New PG)  |
| 18. | Dr. Sumanth Govindarajan   | : Brahmagiri (Block- New PG)  |
| 19. | Dr. Sreevalsa Kolathayar   | : Shiwalik (Block-11)   |
| 20. | Dr. S Jitendra Pal         | : Shiwalik (Block-11)   |
| 21. | Dr. Dhishna P              | : Ganga (GH-1) & Sharavathi (GH-4)  |
| 22. | Dr. Bhawana Rudra          | : Kaveri (GH -2) & Nethravathi (GH-5)   |
| 23. | Dr. Anupama Surenjan       | : Yamuna (GH-3)   |
| 24. | Dr. Geetha V               | : Godavari (GH-6)   |
| 25. | Dr. Saumen Mandal          | : Quality and Maintenance (Karavali (Block-1), Aravali (Block-2), Vindhya (Block-3), Satpura (Block-4), Sahyadri (Block-7))                               |
| 26. | Dr. Ranjeet Kumar Sahu     | : Quality and Maintenance (Nilgiri (Block-5)), Pushpagiri (PG), Trishul (Block-8), Brahmagiri (New PG)  |
| 27. | Dr. S Pavan Kumar          | : Quality and Maintenance Everest (MT-1), Himalaya (MT-2), Kailash (MT-3), Shiwalik (Block-11), Mega Mess (Chaitanya)                                     |
| 28. | Dr. Shwetha H R            | : Quality and Maintenance Ganga (GH-1), Kaveri (GH-2), Yamuna )GH-3(, Sharavathi )GH-4(, Nethravathi (GH-5) Godavari )GH-6(, GH Veg Mess, GH Non-Veg Mess |

## 14.2 Central Computer Center

CCC plays a pivotal role in maintaining the Institute's IT infrastructure, tailored to academic requirements, by delivering quality IT services to facilitate teaching, learning, research, and innovation. The goal of CCC is to provide uninterrupted campus network connectivity and Internet access around the clock from its location opposite the Silver Jubilee Auditorium, since its establishment in 1995. Dr. Mohit P Tahiliani (Dept of CSE) currently leads CCC, which comprises a team of permanent staff, including a Systems Manager, Senior Scientific Officer, Technical Officers, Assistant Engineers, Technical Assistant, and Junior Assistant, supplemented by contract-based clerical and maintenance personnel.

Under the guidance of the CCA Committee, CCC oversees NITK's extensive campus LAN, extending across academic buildings, residences, and hostels via wired and wireless networks. The backbone network, spanning approximately 20 km of optical fiber cable, delivers 1 Gbps and 10 Gbps connectivity to various campus facilities, with individual connections to departments, residences, administrative offices, guest houses, and hostels. Network expansion phases, funded by TEQIP, have been ongoing since 1999, culminating in the completion of the Core Network Expansion and Campus WiFi in 2016, totaling approximately Rs 6.78 crores. BSNL maintains the expanded network equipment under warranty for five years, including core switches, firewalls, and WiFi infrastructure.

With 11 Gbps Internet bandwidth, sourced from National Knowledge Network and BSNL, NITK invests approximately Rs 2 crores annually for network connectivity and broadband services, with plans for redundancy through multiple ISPs. Additionally, IPv6 implementation and Fiber-to-the-Home (FTTH) initiatives are underway.

The NITK Data Centre, housed within CCC's premises, serves as a central hub for network integration and critical services. Virtualization technology, utilizing Blade Servers with VMWare and Dell/Lenovo Servers with Proxmox or Ubuntu containerization environments, optimizes resource utilization and service accessibility. CCC also manages NITK's website updates and domain administration, alongside coordinating the campus-wide MATLAB license distribution.

CCC's physical space is dedicated to various functions, including the upcoming Data Centre, Skill Development Centre, and a general-purpose computing hall equipped with desktop computers. Network infrastructure management is outsourced, with onsite support and maintenance facilitated through a dedicated helpdesk. Power redundancy is ensured through MESCOM and generator backups, supported by UPS systems for uninterrupted network operations. Amidst the transition to online learning since March 2020, CCC has maintained network reliability and provided essential support services, including VPN and captive portal logins as required.

Laboratories within CCC encompass a LAN facility with desktops, a Skill Development Centre with thinclients, general-purpose servers, and MATLAB licensing services, catering to diverse academic and research needs.

## 14.3 Central Library

### **ABOUT THE LIBRARY:**

Central Library was established in the year 1960 along with the institute. Starting with a small collection of books, it has recorded impressive growth over the decades and is today considered one of the best technical libraries in the country having modern facilities and a fully automated library system. The Main Library is housed in a spacious three-storied building with an area of 3555.75 (Sq. mtr.) adjoining the main building of the Institute on the southern side. Being an integral part of academic and research work on the campus, the library caters to information services to support the teaching, learning and research activities of the Institute

by providing state-of-the-art facilities and offering innovative services. Library operations are fully computerized with the KOHA Integrated Library Management System and an online catalog for the entire holdings of books is accessible on/off the campus. The newly established e-library Complex with an area of 2260 (Sq. mtr.) is equipped with State-of-the-Art digital infrastructural facilities like Digital Learning Centre for Lecture Recording & Live Streaming of online programs, Digitization & Archiving Centre, Cyber Libraries to conduct hands-on training, Seminar Halls, Discussion Rooms, Laptop Zones and cafeteria. It provides 24x7 services to 8000 plus on-campus library users.

#### **VISION & MISSION:**

The library's vision is to "To serve as one of the leading libraries of Technical & Engineering institutes in the country."

The library's mission is to "To provide the NITK user community with the highest quality of information services to support their teaching-learning and research activities."

#### **LEARNING RESOURCES:**

The library has a rich collection of research monographs, textbooks, current periodicals, periodical bound volumes, standards, conference proceedings, reference books, edited volumes, etc. encompassing all disciplines taught and researched at the Institute. The collection of reading materials in the library is rich, diverse and growing day by day. Special emphasis has been given to e-books and e-journals, which one can access 24x7, whether on campus, at home, or on the move. Currently, the collection consists of more than 90,000 print books, 16,357 periodical bound volumes, nearly 25,000 e-books, 70 print periodicals, 11,367 full-text e-journals, 837 e-Theses, and 32 online databases.

The library added the following e-resources during the financial year 2023-24 to support teaching and research.

##### **❖ e-Journals Collections:**

- SAGE – Management & Organisation Studies Journals Collections
- SAGE – Engineering and Material Science Journals Collection
- IWA Publishing - Read & Publish Model
- Indiastat.com Database
- AAAS Science Journals

##### **❖ e-Book Collections:**

- Materials Engineering, Earth and Environmental Eng. (Ebooks related to Ocean/Water/Mining) AI & Robotics (316 titles)
- Springer Computer Science eBooks collection with access to LNCS Backfiles (2024 CY) (1233 titles)
- Springer Synthesis collection of Technology (2005-2023 CY) (1292 titles)
- World Scientific AI, IoT and Clean Energy eBook Collections (129 titles)
- De Gruyter Computer Science and Engineering E-Books Collection (200 titles)

#### **LEARNING SPACES**

For many students, the library is a favored place of learning and a popular meeting place on campus. We offer more than 1000 seating capacity in the library. For teamwork, there are 6 group discussion rooms (10-student capacity) available in the e-Library Complex. For those who prefer to study undisturbed, there are

individual study places (carrels) on the Ground Floor of the e-Library Complex. More than 50% of the reading places have power sockets to recharge mobiles/laptops.

### **ARRANGEMENT OF BOOKS ON THE SHELF**

The library has an open-access policy for the books and periodicals on the shelves. The users are free to browse through the collection and pick any book of their interest. All books in print are classified as per the latest Dewey Decimal Classification system and arranged by classification numbers (subject-wise) on the shelf. The detailed shelf & row guides are provided in the stack area for easy location. Print journals are arranged in alphabetical order and CDs are by Accession Numbers.

### **DIGITAL LIBRARY**

The institute established an e-Library Complex in 2018 to provide digital library services and it has State-of-the-Art digital infrastructural facilities like the Digital Learning Centre for Lecture Recording & Live Streaming, Computer Labs to conduct hands-on training, Seminar Hall, Discussion Rooms, Laptop Zones, etc. catering to more than 8000 on campus library users 24X7 along with in-housed cafeteria. As part of the e-Library system, a dynamic library website (<http://library.nitk.ac.in>) has been developed by the library team to provide access to the e-resources from anywhere in the world and at any time using the Remote Access facility. Institutional Digital Repository (<http://idr.nitk.ac.in>) provides access to all the publications of the NITK till today including the full-text Ph.D theses. IRINS (<http://nitk.irins.org>) a web-based research information system provides faculty profiles and their research collaboration including their h-index and citation metrics.

Some of the services offered under Digital Library include:

- Dynamic Library Website (<http://library.nitk.ac.in>)
- Online Access to e-Resources through e-Library Portal
- Online Library Catalogue (<http://opac.nitk.ac.in>)
- Institutional Digital Repository (<http://idr.nitk.ac.in>)
- Knimbus m-Library Remote Access Facility (<http://nitks.knimbus.com>)
- Mobile Library App (Android & iOS)
- Online Plagiarism Check through TURNITIN Software Access to Grammarly Software
- e-Studio facility to record faculty lectures and live streaming Digitisation and Archiving facility
- IRINS Faculty Profile Management System (<http://nitk.irins.org>)
- Online LiveChat with Library Staff
- QR Codes for Library Digital Services
- News@NITK Digital Newspaper Clipping Service (Monthly)
- Publications@NITK Article Alert Service (Monthly)

### **LIBRARY SERVICES**

- Borrowing of Reading Materials
- Reference and Information Services
- Document Delivery Service (DDS)
- New Arrivals of Books
- Photocopy Service (Outsourced)
- Ask A Librarian
- Literature Search & Other Services
- Research Support Services



- User Awareness Programmes
- Instructional Services and Author Workshops
- Technical Support

#### LIBRARY FACILITIES

- High-speed internet connectivity with Wi-Fi on all floors
- Air-conditioned reading rooms
- Dedicated Laptop Zones
- Reading tables with power sockets for recharging mobiles and laptops
- Individual Study Carrels
- Digital Learning Centre for soundproof lecture recording and live streaming of online programs
- Digitisation and Archiving Centre
- Digital Library / Cyber Library
- Kindle Library
- Discussion Rooms for group study/presentations
- Air-conditioned soundproof Seminar Hall (60 capacity) with 85 inches digital touchscreen
- Drinking water (Hot, Normal & Cold)
- In-house Cafeteria

#### LIBRARY MEMBERSHIP

Central Library offers its services to the faculty members, students and staff who are primary users of the library free of cost. Upon joining the Institute, membership is enrolled by default. The borrowing privileges for different categories of members are:

Type of User	No. of Books	Period
Faculty Members	15	1 Year
Non-Teaching Staff	4	30 days
Research Scholars	5	1 Semester
Post Graduate Students	4	15 days
Under Graduate Students	4	15 days

**Note: Late Fee (applicable to UG & PG categories of users) (Rs.1.00 per day/book)**

#### CORPORATE LIBRARY MEMBERSHIP

To facilitate industry linkages and interactions for mutual benefit, the library has recently opened up its membership to corporate organizations by offering access to its collection and services against a nominal fee. The members enrolled will be issued 5 Membership Cards and can borrow 5 books for 30 days period. In order to get the membership, the corporate organisations need to fill in a separate form and pay the following membership fee.

Membership with Borrowing Facility	Amount (Rs.)
Annual Fee including GST	12,000.00
Library deposit (Refundable)	25,000.00

**Note:** A late fee of Rs.5.00 per day/book will be charged.

### ACADEMIC LIBRARY MEMBERSHIP

To facilitate institutional linkages and interactions for mutual benefit, the library has recently opened its membership to academic institutions by offering limited access to collection and services against a nominal fee. To get the membership, the academic institutions need to fill in a separate form and pay the following membership fee.

Membership without Borrowing Facility	Amount (Rs.)
Annual Fee including GST	5000.00
Library Deposit (refundable)	10000.00

## 14.4 Laboratories

### 1. DEPARTMENT OF CHEMICAL ENGINEERING

**Testing & Quality Control Lab:** Flame Photometer, Tinto meter, Turbidity meter, C.O.D. Digester, Brook Field Viscometer, Flue Gas Analyser, Trinocular microscope, Bomb calorimeter, Conductivity meter, Spectrophotometer, B.O.D. incubator, Noise Level Meter, Water Purification system.

**Project Lab I & IA:** Ultrasonic water Bath, Muffle furnace, Peristaltic pump, Ultrasonic Sonicator, UV Ozone Cleaner, Continuous homogenizer.

**Project Lab II:** Horizontal laminar flow workstation, Gel document, spectro photo meter, Eppendorf centrifuge.

**Computer Simulation Lab:** Ansys CFD, Aspenplus, MATLAB, Design Expert.

**ProjectLab III:** Deep Freezer, Centrifuge, UV solid sampler, centrifuge, Microscope.

**Heat Transfer Lab:** Jacketed vessels, Shell and tube heat exchanger, double pipe heat exchanger, Thermal conductivity of solids apparatus, High volume sampler, Portable gas sampler, Plate heat exchanger, Stack monitoring kit, Fluidized Bed Combustor (IIT Madras), Deep Freezer.

**Project Lab IV:** Ultra Sonic water bath, Autoclave, Stirred Cell Membrane Unit, U V Irradiated membrane filtration Unit.

**Project Lab V:** Flash point apparatus, Viscometer - (Redwood & Saybolt), Eddy current drive with motor & accessories, Ozone Generator, Jacketed vessels, Generator - 10 KVA, Ozone Monitor/TLA.

**Biotechnology Lab:** Laboratory Centrifuge, Digital Refractometer, Orbital shaker, Hi-Anaerobic system, Autoclave (vertical), Compound Microscope, Microwave Oven, Lyophilizer, Gel Electrophoresis, Continuous Homogenizer, Lab Bioreactor with variable Volume Fixtures, Brook Field Viscometer, Tangential Flow Filtration with ultrafiltration Module, Temp Controlled Digital Density Meter, Spectrophotometer, Incubator - shaker, Horizontal laminar flow work station, ultrasonic processor.

**Project Lab V:** Elgi Centrifuge, Electric oven, Muffle Furnace, Surface tension meter, Membrane testing System, Peristaltic pump, Incubator - shaker, Vortex Mixer, rotating disc contactor, Continuous membrane filtration unit, Ice Flaker.

**Fermentation Lab:** Colony Counter, CO2 Incubator, Microwave Digestion System, Muffle furnace, Incubator - shaker, High-speed cooling centrifuge, Freeze dryer, C.O.D Analyser, Pestle & Mortar, Pellet Press, Slow Speed Cutting Machine, Vacuum Cleaner, ionic conductivity source meter.

**Advanced Instruments Lab:** Electrochemical Workstation, cell, C-Electrode, Gel Electrophoresis, Bio Sensor, Mini Protean Tetra cell, Trinocular microscope tific, Spectrophotometer, Total organic carbon analyzer, Graphite furnace and hydride generator, Ultrapure water generator, AAS, Electrophoresis,

High-Performance liquid Chromatograph, Gas chromatography Mass spectrophotometer, Ion Chromatography, High-speed refrigerated cooling centrifuge.

**Immunology Lab:** Micro Centrifuge, Power Pack for Southern & Northern blots, Automated microplate reader, Western Bolt unit, Photometer for PCR Work, Polymerase Chain Reaction Machine.

**Mass Transfer Lab:** Liquid Extraction in Packed Bed, Vertical Tube Evaporator, Packed Distillation Column, Absorption in Packed Tower, Spray Tower, Fluidized Bed Dryer (With air circulation) Model No.MT - 18, Wetted Wall Column (with air circulation), Batch Crystallizer, Forced Draft Tray Dryer, Diffusivity Measurement, Counter current leaching, Crosscurrent leaching, Steam Distillation, Vapor-liquid equilibrium, Surface evaporation, Liquid Extraction in Packed Bed.

**Process Control & Reaction Engg:** Batch reactor, RTD in tubes plug flow reactor, RTD in packed bed, RTD in CSTR, Reactor combination of PFR and Magnet pump Multi range conductivity meter, Digital online, Process control loop trainers, non-interacting tank, Time constant of Pressure Vessel & mercury meter, Constant temperature bath.

**Heat Transfer Lab:** Shell and Tube Heat Exchanger, Electrically Heated Boiler, Parallel flow/counter flow/Double pipe heat exchanger, Pool Boiling Heat Transfer Apparatus Forced Convection Heat Transfer, Natural Convection Heat Transfer Model, Stefan Boltzmann apparatus, Thermal conductivity of insulating Powders, Thermal conductivity of liquids, Horizontal Condenser & Vertical Condenser Steam, Heat Transfer through coils, Natural and forced convection in air, Heat Transfer through packed bed apparatus, Transient heat conduction-constant heat flux, Transient heat conduction-constant temperature, Heat Transfer through vertical barre and finned tube heat exchanger, Plate heat exchanger, Spiral plate heat exchanger, Heat losses by combined convention and radiation (for cylinder & sphere.

**Fluid Mechanics Lab:** Flow through pipes and fittings, Flow through orifice meter, through rotameter, Flow through fluidized bed, Flow through Packed bed, Flow through venturi meter, Flow through Notches, Flow through coils, Characteristics of a centrifugal pump, Pitot tube, Open orifice, Annulus.

**Particulate Technology Laboratory:** Ball mill, Sieve Shaking Machine, Screen effectiveness, permeability, Jaw crusher, Air elutriation, Batch sedimentation, Leaf filter, Drop weight crusher, Attrition mill, Jaw Crusher, Vibrator.

**Environmental Immunology Laboratory:** Kinetic plate reader, universal plate reader, freezer, cooling centrifuge, CO<sub>2</sub> incubator, hot air oven, Gel electrophoresis units, minivol samplers, microbial samplers.

**Systems And Control Laboratory:** Heating and Cooling Circulator, Crystallizer, Lab scale Wastewater Treatment Set up.

**Energy & Catalysis Materials Laboratory:**

Dilatometer, Ionic conductivity meter, Fume hood, Hot air Oven, Tubular and horizontal Muffle furnaces, High-temperature Muffle furnace, Pellet presser, Low speed cutting machine, CO Gas analyzer. Electric Agate mortar and pestle.

**Particulate Technology Lab:** Screen Effectiveness, Air Permeability, Jaw Crusher, Air Elutriation, Batch Sedimentation, Ball Milling, Cyclone Efficiency, Drop Weight Crusher.

**Industrial Biotechnology Lab:** Gel swinger, Bioreactor, Autoclave, Centrifuge, Digital Microscope.

**Environmental Sciences & Technology Lab:** Biospectrometer, BOD System, COD System, Respirable dust sampler, Ambient fine dust sampler, Stack Monitor kit.

#### **MAJOR EQUIPMENT/ FACILITIES**

- Gas Chromatograph.
- Refrigerated Centrifuge.
- Quartz Immersion well Reactor.
- Electro Spinning equipment.

- Bench Top Fermentor.
- Particle Size Analyser.
- Freeze Dryer.
- Gel Documentation.
- Thermogravimetric Analyser.
- HPLC.
- LC-MS.
- ICP-OES.
- FPLC.
- Fermentor.
- Real time Polymerization chain reaction machine.
- Biosafety cabinet level II.

**Energy And Catalysis Materials Laboratory:**

- Solid Oxide Fuel/Electrolysis.
- button cell Test Station.
- CH Instrument.
- Gas Analyzers.
- Electrospinning Unit.
- Dilatometer.
- Reducing atmosphere setup.
- DC four-probe Keithley 2450
- source meter.

## 2. DEPARTMENT OF CIVIL ENGINEERING

**Transportation Engineering Laboratory:** Marshall stability machine, Centrifuge extractor for bitumen, Servo controlled fatigue testing machine, Gyrocompactor.

**Transportation Design Studio:** Video cameras, Radar Guns, Laser speed gun and Computing facility.

**Earthquake Engineering Laboratory:** Small shake Table and computing facility.

**Concrete Materials Laboratory:** 2000 kN Compression Testing Machine, Accelerated Curing Tank, Pelletizer, Rebound Hammer, PUNDIT UPV-Tester, Setting Time of Concrete Apparatus, Equipment for testing rheological characteristics of SCC, Carbonation Chamber.

**Structural Engineering Laboratory:** 100kN OHT (Manual), 200 kN Testing Frame, 50 kN Testing Frame, Column Testing M/c.

**Environmental Engineering Laboratory:** Gas Chromatography, HPLC, Atomic Absorption Spectrophotometer, High volume air sampler.

**Geotechnical Engineering Laboratory:** Compaction Test, Triaxial Testing Machine, Consolidation set up. CBR testing mould. Atterberg Limit apparatus, Rock Cutting machine.

**Environmental Geotechnology (EnGTE) Laboratory:** TCLP test, equipment related to soil chemical analysis.

**Advanced Asphalt Characterisation and Rheology Laboratory:** Modular Compact Rheometer system, Pressure Aging Vessel, Rolling Thin Film Oven, Rotational Viscometer, and Capillary Viscometer system.

**Geo-Disaster Prevention Laboratory:** Landslide Apparatus, Tsunami Flume, Submarine Landslide Apparatus, Wind Turbine Foundation Experimental facilities, Data Acquisition System, Dynamic Analyser, Displacement Gauges, Strain Gauges, Load Cells, Hot Air Oven, Computing System.

**Geotechnical Earthquake Engineering Laboratory:** Shake Table (2mx2m), Cyclic Loading Jack, Apparatus for Physical Model tests, Air Pulverization system, Experimental facilities for reinforced soil retaining wall and other Foundation Systems, Geophones, Earth Pressures Sensors, Data Acquisition System, Dynamic Analyser, Accelerometers, Pore Water Pressure Transducers, Laser Displacement Gauges, Hot Air Oven, Computing System. Geotech Software FLAC3D.

**AutoCAD Lab:** 60 Desktop systems (2013 make) running on WINDOWS 7 OS.

**Bio-Concrete Laboratory:** UV-ViS spectrophotometer, Laminar Air Flow chamber, Data Acquisition System, Incubator-Shaker, Distillation unit.

**Geology Lab:** Rock and mineral samples, Electrical Resistivity meter (Hydrogeology Lab), Geological models (Structural Geology Lab).

**Bioprocesses-Engineering Lab:** Automated Small scale decentralized Greywater treatment system 250 L/d Capacity, Portable Multiparameter analyzer, Digital ORP meter, Distillation unit, Bioreactor 10 L operating volume, Soxhlet apparatus, Deep Freezer, Peristaltic pumps-2 No., and other minor equipments.

**Center for Safety Evaluation of Dams and Special Structures:** Workstations (2 Nos - Intel Xeon W 2255), Workstation (3 Nos - i7), Seismoartif and Seismomatch software.

**Advanced Geotechnical Engineering Laboratory:** Automated triaxial test apparatus, Flexible permeability apparatus, Digital direct shear test apparatus, Consolidation gangs, Constant Rate of Strain consolidation test apparatus.

### 3. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

#### U.G Lab-1:

- Dell Desktop OptiPlex 5070: Processor: Intel core i5 9500 RAM: 16 GB, HDD: 1 TB, (Ubuntu 18.04 LTS)-30.
- HP Desktop EliteDesk 800 G1 TWR-Intel Core i7-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD (Windows 8, Ubuntu) -34.
- Dell OptiPlex 9010: Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB, (Windows 8, Ubuntu)-03.
- HP Pro Desk 600 G3 MT: Processor: Intel core i5, RAM: 8 GB HDD: 1 -03.
- Lenovo M series: Processor: Intel Core i7-4790@3.60GHz x 4.
- RAM: 16 GB, HDD:500 GB -01.
- Dell OptiPlex 9020: Processor: Intel core i7-4790, RAM: 16 GB.
- HDD: 1TB – 01.
- Lenovo ThinkCenter M920t: Processor: Intel Core i7-8700, RAM: 8 GB, HDD:1 TB- 02.
- Canon image CLASS MF3010-01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

#### U.G Lab-2:

- Dell Desktop OptiPlex 5070: Processor: Intel core i5 9500 RAM: 16 GB, HDD: 1 TB, (Ubuntu 18.04 LTS)-30.
- Dell Desktop OptiPlex 5070: Processor: Intel core i5 9500 RAM: 16 GB, HDD: 1 TB, (Ubuntu 18.04 LTS)-06.
- HP Elite Desk 800 G1 TWR: Intel Core i7-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD, (Windows 8, Ubuntu) - Out of warranty-11.
- HP Elite desk 800 G8 - Processor: Intel core i5, RAM: 16 GB, HDD: 1 TB, (Ubuntu 22.04 LTS)-23.

- Dell OptiPlex 9010: Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB, (Windows 8, Ubuntu)-01.
- HP M132nw Printer -01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**U.G Lab-3:**

- HP 800 G9 elite Desktop: Processor: Intel Core i9-13900, RAM: 64 GB, SSD: 512GB, HDD: 1 TB -18.
- Dell OptiPlex 7000: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 56GB, HDD: 1 TB- 26.
- HP Elite Tower 600 G9 Desktop PC: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB – 13.
- Lenovo Think Center M920t: Processor: Intel Core i7-8700, RAM: 8 GB, HDD: 1 TB -01.
- Lenovo ThinkCenter M910t: Processor: Intel Core i7-7700, RAM: 8 GB, HDD: 1 TB -01.
- HP LaserJet Tank MFP 2606sdw Printer -01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Digital Lab:**

- Digital IC Trainer Kit-65.
- Digital IC Tester-02.

**I M.Tech (CSE) Lab:**

- HP Elite desk 800 G8 - Processor: Intel core i5, RAM: 16 GB, HDD: 1 TB, (Ubuntu 22.04 LTS)-47.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-01.
- HP Elite Desk 800 G1 TWR - Intel Core i7-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD (Windows 8, Ubuntu)-01.
- HP Elite Tower 600 G9 Desktop PC: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB – 01.
- HP LaserJet M1005-01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**I M.Tech (CSE-IS) Lab:**

- HP Elite desk 800 G8 - Processor: Intel core i5, RAM: 16 GB, HDD: 1 TB, (Ubuntu 22.04 LTS)-40.
- HP Elite Tower 600 G9 Desktop PC: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB – 16.
- Dell OptiPlex 9010: Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB, (Windows 8, Ubuntu)-01.
- HP LaserJet 1020 – 01.
- HP LaserJet MFPM132 NW printer-01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 1:**

- HP Pro Desk 600 G9 MT: Processor: Intel core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB, (Ubuntu 24.04, Windows 11)-03.
- HP Elite desk 800 G8 - Processor: Intel core i5, RAM: 16 GB, HDD: 1 TB, (Ubuntu 22.04 LTS)-01.
- HP Pro Desk 600 G3 MT: Processor: Intel core i5, RAM: 8 GB HDD: 1 TB, (Ubuntu 20.04)-02.
- Dell OptiPlex 9010 - Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB (Windows 8, Ubuntu)-01.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-01.



- Dell OptiPlex 9020- Processor: Intel core i7 4790, HDD: 1 TB, RAM:16 GB, 19" TFT/LCD Monitor, Ubuntu/Windows10 Pro-01.
- Lenovo Think Center M920t: Processor: Intel Core i7-8700, RAM: 8 GB, HDD: 1 TB- 02.
- Dell OptiPlex 7000: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB- 02.
- HP HPLJM1319-F – 01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 2:**

- Lenovo Think Station- type 4353 (D30 Workstation): Intel Xeon E5-2650, 8 core 2.6 GHz, 64/128GB, 4TB (Windows 8 Pro, Ubuntu)-19.
- Dell OptiPlex 9010: Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB (Windows 8, Ubuntu)-01.
- Dell Precision Tower 7910: Intel Xeon E5-2670, 8 core 2.3 GHz, 128GB, 4TB (Windows 8, Ubuntu)-02.
- Dell Precision 7820: Intel Xeon® Gold 5120 CPU @2.20GHzX28, 64GB, 4TB (Windows 10, Ubuntu)-01.
- HP Pro Desk 600 G3 MT: Processor: Intel core i5, RAM: 8 GB HDD: 1 TB, (Ubuntu 20.04) -03.
- Dell/OptiPlex 9020- Processor: Intel core i7 4790, HDD: 1 TB, RAM: 16 GB, 19" TFT/LCD Monitor, Ubuntu/Windows10 Pro-01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 3:**

- Dell/OptiPlex 9020- Processor: Intel core i7 4790, HDD: 1 TB, RAM: 16 GB, 19" TFT/LCD Monitor, Ubuntu/Windows10 Pro– 01.
- HP Pro Desk 600 G3 MT- Processor: Intel core i5, RAM: 8 GB HDD: 1 TB (Ubuntu 20.04) -02.
- Lenovo M920t: Processor: Intel core i7 8700, RAM: 8 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 18.04 LTS)-03.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-01.
- HP Elite Tower 600 G9 Desktop PC: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB – 01.
- Lenovo Think station Workstation-02.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 4:**

- Lenovo ThinkCentre M910t: Processor: Intel Core i7 7700 CPU@3.60 GHz, RAM: 8 GB DDR4, HDD: 1 TB (Windows 10, Ubuntu)-12.
- Lenovo ThinkCentre M920t: Processor: Intel Core i7 8700 RAM: 8 GB DDR4, HDD: 1 TB (Ubuntu 20.00)-02.
- HP Pro Desk 600 G3 MT: Processor: Intel core i5, RAM: 8 GB HDD: 1 TB, (windows10 / Ubuntu 20.04)-03.
- Dell OptiPlex 9020- Processor: Intel core i7 4790, HDD: 1 TB, RAM: 16 GB, 19" TFT/LCD Monitor, Ubuntu/Windows10 Pro (Project PC)-04.
- Lenovo Think station(P700) (Cluster) (2016)- out of warranty-07
- Lenovo Think Centre S-20 (2011)-01.
- Lenovo Think station S30 workstation with 24" LCD monitor (2014)-out of warranty-01.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-02.
- Dell High-End Workstation (DT Precision 5820) (2018)-02.

- DELL OptiPlex 9010: Processor: Intel®) Core™ i7-3770 @ 3.40 GHz RAM: 8 GB DDR4, HDD: 500 GB (Windows 8, Ubuntu)-01.
- Dell Precision 5820 Workstation (2020)-02.
- HP LaserJet 1010 – 01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 5:**

- Lenovo Think Centre M910t: Intel Core i7 7700 CPU 3.60 GHz, RAM: 8 GB DDR4, HDD: 1 TB, (Window 10 Pro 64 Bit, Ubuntu 3.28.1)-06.
- Dell OptiPlex 9010 - Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB (Windows 8, Ubuntu)-02.
- Dell OptiPlex 9020: Processor: Intel core i7 4790, RAM: 16 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 16.04 LTS)-01.
- HP Pro Desk 600 G3 MT- Processor: Intel core i5, RAM: 8 GB HDD: 1 TB (Ubuntu 20.04)-05.
- Lenovo M920t: Processor: Intel core i7 8700, RAM: 8 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 18.04 LTS)-02.
- Dell OptiPlex 7000: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1TB -04.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-02.
- HP Pro Desk 600 G9 MT: Processor: Intel core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB, (Ubuntu 24.04, Windows 11)-01.
- Dell Workstation OptiPlex 5090 MT-01.
- HP LaserJet MFPM132 NW printer-02.
- HP LaserJet 1010 printer-01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 6:**

- Lenovo ThinkCentre M910t: Intel Core i7 7700 CPU 3.60 GHz, RAM: 8 GB DDR4, HDD: 1 TB, (Window 10 Pro 64 Bit, Ubuntu 3.28.1)-08.
- Dell OptiPlex 9010, Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB, (Windows 8, Ubuntu)-02.
- Dell OptiPlex 9020: Processor: Intel core i7 4790, RAM: 16 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 16.04 LTS)-07.
- HP Pro Desk 600 G3 MT: Processor: Intel core i5, RAM: 8 GB HDD: 1 TB, (Ubuntu 20.04)-09.
- Lenovo M920t: Processor: Intel core i7 8700, RAM: 8 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 18.04 LTS)-02.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-05.
- Dell OptiPlex 7000: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1TB -01.
- HP Elite Desk 800 G1 TWR: Intel Core i7-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD, (Windows 8, Ubuntu)-01.
- HP 280 G6 Project PC: Intel Core i5 10400, 8GB DDR4 RAM, 1TB HDD SATA, 128 GB SSD, Win 10 Pro-01.
- Dell –OptiPlex 5050 Desktop MT XCTO Systems (Project)-01.
- Dell Inspiron 3250 Mini (project)-01
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Research Lab 7:**

- Lenovo Think Centre M910t: Processor: Intel Core i7 7700 CPU@3.60 GHz, RAM: 8 GB DDR4, HDD: 1 TB (Windows 10, Ubuntu)-04.
- Lenovo M920t: Processor: Intel core i7 8700, RAM: 8 GB, HDD: 1 TB, (Windows 10 pro, Ubuntu 18.04 LTS)-04.
- Dell OptiPlex 7000: Processor: Intel Core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1TB -04.
- HP Elite desk 800 G8 - Processor: Intel core i7, RAM: 16 GB, HDD: 1 TB, (Windows 11 / Ubuntu 22.04 LTS)-02.
- HP Pro Desk 600 G9 MT: Processor: Intel core i7-12700, RAM: 32 GB, SSD: 256GB, HDD: 1 TB, (Ubuntu 24.04, Windows 11)-02.
- Dell/OptiPlex 9020- Processor: Intel core i7 4790, HDD: 1 TB, RAM: 16 GB, 19" TFT/LCD Monitor, Ubuntu/Windows10 Pro (with Wi-Fi)-04.
- HP Elite Desk 600 G3 TWR: Intel Core i5-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD, (Windows 8, Ubuntu)-09.
- HP Elite Desk 800 G1 TWR: Intel Core i7-4790 CPU @ 3.60 GHz 16 GB Ram 500 GB HDD, (Windows 8, Ubuntu)-02.
- Dell OptiPlex 9010: Intel (R) Core (TM) i7-3770 CPU @ 3.40GHz, 8GB, 500GB, (Windows 8, Ubuntu)-02.
- HP Elite Desk 705 G1 TWR-01.
- Dell OptiPlex 5050-05.
- Vantageo 15K0-W (Project-BT) Processor: Intel Xeon W-2245, RAM: 32 GB HDD-2TB-03.
- Canon Printer – 01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**Data Centre Lab: Server Class**

- IBM E Server with accessories – 01.
- Dell power Edge Server R420 – 01.
- Dell power Edge Server R720 – 01.
- Dell power edge server T630 – 03.
- Dell Server PE 730XD – 01.
- Dell Server (R740) – 01.
- C-Boston Sys- 5038K-j-KNL Development Workstation – 01.
- Dell R7 power edge R7404 rack server – 03.
- Dell EMC Switch 54112T– 01.
- KVM Switch 8 port VGA – 01.
- C-NVIDIA DGX P2787 – 01.
- C-NVIDIA DGXS -01.
- DELL R750 PowerEdge server -01.
- LAN – 100/1000 Mbps, Seamless Wi-Fi connectivity with WAPs.

**4. DEPARTMENT OF CHEMISTRY**

- Material Science and Catalysis Lab.
- Synthetic Organic Chemistry and Catalysis Lab.
- Membranes and separation technology laboratory.
- Material science laboratory.
- Supramolecular chemistry materials science lab.

- Catalysis and materials chemistry lab.
- Electrochemistry lab.
- Materials science lab.
- Organic and material chemistry lab.
- Macrocyclic Synthesis lab.
- Biophysical and computational chemistry lab.
- Synthesis and material lab.
- Chemistry of renewables and catalysis.

## 5. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

**Analog and Digital Electronic Circuits Lab:** Comprises Analog Circuit Trainer Kits, Digital Circuit Trainer Kits, Microprocessors and Microcontrollers, FPGA modules, Protocol Conversion and Communication Units, Embedded System Design Modules.

**Computer Laboratory:** This Lab has 60 computers with engineering software. The simulation exercises carried out will lead to a better understanding of the concepts in Signals and Systems, Electrical Machines, Power System Modelling, Power Electronics, Computer Aided Design Packages for the Design and Analysis of Power Systems, Distribution Systems, Mini and Major Project Execution.

**High Voltage Testing Laboratory:** High Voltage Test System of 0-100 kV, 100 mA HVAC and corresponding High Direct and Impulse voltage generating system, Insulating oil test kit, 5 kV megger (Tera Ohm Insulation tester), 0-30 kV, 50 mA HVAC source, AEPD analyzer with linear location system, DSO.

**Control Systems Laboratory:** Temperature Control Trainer Kit, Furnace: Heater Supply, 230V AC/50Hz, Lead-lag Compensation Kit, DC motor Speed Control Trainer Kit with DC Motor, PID Controller Trainer Kit, DC Motor Position Control Trainer Kit with DC Motor, AC Motor Position Control System with AC Motor, Time Response of Second Order System kit.

**Electrical Machines (Induction Motors and Transformers) Lab:** DC Generators and Motors, Single Phase and Three Phase Transformers, Single Phase and Three Phase Induction Motors, Synchronous Machines Stepper Motors, Servo Motors.

**Electrical Machines (Synchronous Machines and DC Machines) Laboratory:** Four MG-Sets, RLC-Loading Arrangements, Synchronization Setup, Thyristor Modules, Data Acquisition Systems.

**Measurements and Instrumentation Lab:** CT testing Unit, Energy Meter Calibration, Power Analyser, Earth Resistance Measurement Setup, Cable Test Measurement Setup, Programmable Logic Controllers, Remote Terminal Unit, Distributed Control Systems.

**Power Electronics Laboratory:** Thyristors and Gate Control Modules, IGBTs, Drive Control Unit, DSP Based Controller Modules.

**Power Systems Laboratory:** Four MG-Sets, RLC-Loading Arrangements, Synchronization Setup, Thyristors Modules, Data Acquisition Systems.

**Embedded Systems Laboratory:** OSEK RTOS, KEIL RTOS, KEIL IDE for 805x, ARM, CODEWARRIOR IDE for 68HCXX, TI DSC Code Composer Studio for 28XX MOTOROLA, INTEL, ARM, PIC DSC/MC units.

**DSP Laboratory:** Using a Math Works-based computational platform to write the code and Simulink to understand the application of signal transformation in linear and nonlinear mixing, in typical communication systems such as AM, FM processes. Understanding of Phase lock loop (PLL) functioning, Approximation of Ideal filter responses using FIR and IIR filters.

## 6. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### **Analog Electronics Lab:**

Digital Storage Oscilloscope (Metravi 5100E, GDS 2074E), Function/Arbitrary Waveform Generators (Siglent SDG810), Power supplies (LQ6324, Scientific PSD3304), Digital Multimeters (GDM 541, Fluke 115), Analog multimeters (Motwane) LCR Meters, Bench grinder, Power drill machine, Analog & Digital IC testers (ADIT 40).

### **Digital System Design Lab:**

Lenovo ThinkCentre Desktop Computers (Intel (R) Core™ i5-9500 CPU @3.00GHZ, 16.00GB, 64bit Windows OS, Linux), M1006 Digital Trainer Kits, Model-625 Logic Probes, Digital IC Tester, DE1-SoC, DE10-Standard Boards, Avnet Digilent Zed Boards, Zynq-7000 EPP ZC702 Evaluation Kit, Digilent Zybo Zynq™-7000 Development Boards, Digilent Nexys Video Kits, Nexys 4 Kits, FPGA Peripherals, Softwares (Xilinx Vivado, Altera Quartus Lite, Prime, ModelSim Simulator).

### **Digital Signal Processing Lab:**

Dell OptiPlex 7000 x64-based desktop PC(s) with Intel vPro i7 Processor (Windows and Linux OS), Dell 3630 Workstation (Intel (R), Xeon (R) E-2124G CPU @ 3.40GHz, 16GB RAM) Dell 3650 Workstations (Intel (R), Xeon (R) W-1350 CPU @ 3.30GHz, 16GB RAM), Canon Image CLASS MF4820d Printer, Hardware Kits (STM32F407VG MCU Discovery Kits, L.TEK TLV320 AIC23B Audio Boards, MSP430 Lunch Box Kits, Saleae – Logic Analyzer), Softwares (Keil Microvision, Matlab with various toolboxes, Jupyter Notebook).

### **Communication Lab:**

Desktop Computer HPPRODESK 600 With Matlab Installation, MF244DW LASER Printer Digital Storage Oscilloscope (DSO-X 2004A), Four Channel Digital Storage Oscilloscope (GWINSTEK GDS-2074E, SIGLENT SDS2104X Plus), Function/Arbitrary Waveform Generator, (Keysight 33220A (20MHz), Aplab AWG30D (30MHz), Metravi DDS- 1025, Tektronix AFG1022 (25MHz)), Regulated DC Power Supply (CBPS, LQ6324), Digital multimeter (GWINSTEK GDS 541), Agilent True RMS Multimeter (U1232A), Component Tester (LCR131), Analog and Digital IC Tester (MME ADIT 40, MME - DIT 2040).

### **Microprocessor & Embedded Systems Lab:**

Dell Optiplex 3090 Desktop computers with 8GB RAM Intel i3 Processor, HP Laserjet Printer, Keil MCB 1760 Ulink2-ED-ARM Cortex M3 boards, ARM 7 Development Kit (MCB 2140), ARM 9 (MCB 2919), ARM 9 Evaluation Board, Intel Inforce Computing with power supply kits, LPC 1768 Microcontrollers, LPC 11U24 Microcontrollers, Discovery kits (STM32L, STM32 F4), PSOC 3, PSOC5 Development Kits, Cypress Programmable system-on-chip solution PSOC Development Kits, Cypress Semiconductor CY8CKIT-059 PSOC 5LP & Prototyping Kit, Ultra-low power MSP 430 Microcontrollers, MSP430 Ultra-low power MCUS eZ430-F2013, MSP 430 Launch Pad, Raspberry Pi Kit & Accessories, Arduino UNO Board, E430-Chronos Development Tool, Beaglebone, ARM & CORTEX M4 Based development Kits.

### **VLSI Lab:**

Workstations, License servers, Printer, CADENCE Tools, Visual TCAD Tools, Licenses, Mentor Graphic Tools, Synopsys Tools, NG Spice & MAGIC tools, Hardware kits (Basys 3 Boards + accessories, Analog Discovery Kit, Zybo Boards+ accessories, Nexyx 4 DDR, PMOD Key, PMOD CLP).

### **Microwave and Optical Communication Lab:**

Microwave Integrated Circuit Trainer Model GBT-MIC 382 GB Technology, Branchline DC, Low Pass Filter, 15dB Backward Wave Coupler, 50 Ohm Line, 10dB Directional Coupler, Schottky Detector, 3dB Hybrid Ring, 50 Ohm Load, Short, Ring Resonator, Band Pass Filter, Attenuator, 25 Ohm Load, Microwave Source 302, VSWR Meter GB 202 (GB Technology), Attenuator pads 3db, 6db, 10db one each 300A3610 (GB), Microwave Bench Full Set Up, X Band Microwave Kit & accessories (Nvis Technologies) SWR Meter NV103A, Gun Power Supply NV101, Freq meter (1nos), Klystron Power Supply

NV102, Microwave Experiment Kits including accessories (Nvis) Full Microwave Bench, Nvis accessories- Gunn Power Supply Nv 101A, SWR Meter Nv 103A, Radiation Pattern Turn Table, Digital DRF Freq Meter Nvis 205A, Slotted Section, Directional Coupler, Circulator Antenna, Gun Power Supply Microwave Bench and Its accessories (Techni lab), Klystron Power Supply Microwave Bench and Its accessories (Techni lab), YOKOGAWA AQ6370C Optical Spectrum Analyzer, DWDM & Bragg grating module & accessories (Benchmark), Model LS850, Fiber Optic 850 LED Power Source, Digital Source 2400 SMU and Accessories.

**IC Design Lab:**

Dell Optiplex 5090 desktops-I7 Processor with 19" monitors. (Linux OS), HP 600G9 Desktop Computers, HP Laser MFP 136 nw Printer, NG Spice & MAGIC tools, Hardware kits (Basys 3 Boards + accessories, Analog Discovery Kit, Zybo Boards+ accessories, Nexyx 4 DDR, PMOD Key, PMOD CLP).

**Signal Processing and Machine Learning Lab:**

C-RDP XNG SPRINT GPU-Intel® Xeon (R) Gold 6226R CPU @ 2.90 GHz x 32 with 24" Monitor. Dell Optiplex 5090 desktops-I7 Processor with 19" monitors. (Windows and Linux OS), HP Laser MFP 136 nw Printer, Software (Keil Microvision, Matlab with various toolboxes, Jupyter Notebook, Xilinx Vivado, Altera Quartus Lite, ModelSim Simulator, Hardware Kits (STM32F407G Audio Discovery Kits, L.TEK TLV320 AIC23B Audio Boards, Analog Discovery Kits (USB Oscilloscope and Variable Power Supply), Saleae - Logic Analyzer, Carrier Board (JETSON-IO-BASE), AI Developer Kits (Daughter Board), DE-10 Standard FPGA Boards, TFT without Touch LCD Display Module.

**Wireless Communication and Networks Lab:**

Dell Optiplex 5090 desktops I7 Processor with 19" monitors, HP Laser MFP 136 nw Printer, Adalm Pluto SDR Active Learning Module.

**Project Lab:**

Desktop Computers, Digital Storage Oscilloscopes, Function Generators, Regulated DC Power Supplies, Digital multimeters, Analog and Digital IC Tester.

**Research Laboratories:**

Analog/Sub-THz RF Integrated Circuits and Microsystems (ASCM) Lab, Semiconductor Research for Electronic Integration and Automation Lab, Ultrathin Semiconductors Deposition (USO) Lab, Stochastic Modeling, Imaging and Learning (SMILE) Lab, Computer Vision and Deep Learning (CVDL) Lab, Sensing, Imaging and Informatics Lab, Data Science Systems Lab, Applied Photonics Lab, RF and Antenna Systems Lab, Sensor Integration Lab, 5G lab.

## 7. DEPARTMENT OF INFORMATION TECHNOLOGY

**Undergraduate Lab-1:** *Desktops:* Dell Optiplex 5090-10, *Desktops:* Dell Optiplex 5050 – 29, HP Prodesk 600G5 MT-29, Dell Optiplex 9020 MT core i7-1, HP Elite Desk 800 G1-2, *Surveillance Cameras:* HIKVISION make 4 MP Dome IP Camera -3, Dlink DCS4602 EV Full HD-1.

**Undergraduate Lab-2:** *Desktops:* HP Elite Desk 800 G8 Tower - 48, HP Prodesk 600 G5 MT-1, Dell Optiplex 5050 -2, *Surveillance Cameras:* Dlink DCS4602 VE (Vigilance Full HD Outdoor Vandal Proof POE) Dome Camera-2.

**Undergraduate Lab-3:** *Desktops:* HP Elite Tower 600 G9 Desktop PC -60.

**Undergraduate Lab-4:** *Desktops:* HP Elite Tower 600 G9 Desktop PC -30.

**Undergraduate Lab-5:** *Desktops:* HP Elite Tower 600 G9 Desktop PC -30, DIGITAL IC TRAINER Model -UDT 4004-20, DIGITAL IC TESTER MME-DIT 2040-1, DIGITAL IC TRAINER Model – ML 555T-20, DIGITAL IC TESTER MME-DIT 2040-1.

**Project Laboratory:** *Desktops:* Dell Optiplex 5050- 36, HP Prodesk 600 G5 MT-1, *Surveillance Cameras:* Dlink DCS4602 VE (Vigilance Full HD Outdoor Vandal Proof POE) Dome Camera-2.



**Post Graduate Lab-1:** Desktops: HP Prodesk 600G5 MT-36, Surveillance Cameras: HIKVISION make 4 MP Dome IP Camera -2.

**Post Graduate Lab -2:** Desktops: HP Prodesk 600G5 MT-29, Dell Optiplex 5090-6, Surveillance Cameras: HIKVISION make 4 MP Dome IP Camera -2.

**Research Lab-1:** Desktops: HP Elite Desk 800 G8 Tower-1, Dell Optiplex 5090-7, and HP Prodesk 600 G 5 MT-6, Dell Optiplex 5050 -1, Printer: Canon Lbp 6230dn Laser Printer-1, Surveillance Cameras: Hikvision 2 MP-2.

**Research Lab-2:** Desktops: HP Elite Desk 800 G8 Tower-1, Dell Optiplex 5090-1, HP Prodesk 600G5 MT-7, Dell Optiplex 9020 MT - 1, Printer: Canon Lbp 6230dn Laser Printer-1, Netgear RN626X000-100NS-1, Surveillance Cameras: Hikvision 2 MP-2.

**Research Lab-3:** Desktops: Dell Optiplex 5090-2, HP Prodesk 600G5 MT -1, HP Elite Tower 600 G9-20, Surveillance Cameras: Hikvision make 4 MP 2.8mm Dome IP Camera-2.

**NITK RDL IoT & Data Analytics Lab:** RDL & IoT Kit-30, Memsic Classroom Kit-1, Memsic WSN Professional Kit-1, PCI DIOT I/O Interface Kits-20.

**High Performance Computing Lab:** C Dell 7010 Optiplex Tower Plus-1.

**Network Switch Room:** Desktops: Dell Optiplex 5050-2, Dell Optiplex 9020-1, Servers: NVIDIA DGX Station -1, TYRONE CAMARERO DS 400TG-1, Dell Power Edge R730XD 2U Rack server -2, Dell Power Edge R540-1, NETGEAR READY NAS RN316/6BAY 4TB Surveillance HDD, Hikvision 16 CH 2 SATA NVR-2.

## 8. DEPARTMENT OF MECHANICAL ENGINEERING

**Advanced Dynamics Lab:** Experimental Modal Analysis, Forced Vibration Analysis, Tuned Impulse Hammer, Minishaker with Controller, Modal Analysis Software.

**Wind Tunnel Laboratory:** subsonic wind tunnel, force balance.

**Advanced Manufacturing Laboratory:** 3-D Printing, Fused Deposition Modeling based 3-D Printer, Material Extrusion, Single Screw Extruder.

**Smart Structures Laboratory:** Free and forced vibration setup with controller, Impact hammer, Tri-axial accelerometer, Electrodynamic shaker, Analyzer, closed-loop controller, force sensor, impedance head.

**Refrigeration and Air-conditioning Research Laboratory:** Micro heat pipe test rig, Vapour pressure determination test rig, Thermoelectric refrigeration test rig, Condenser pressure variation VCR test rig, Vortex tube refrigeration test rig, Air engine test rig, Weather simulation chamber & Window air conditioner test rig, two Stage VCR test rig with intercooler.

**Turbomachinery Laboratory:** Low-speed compressor cascade test facility, Low-speed turbine cascade test facility, Centrifugal blower test rig.

**Polymer Composites Lab:** vartm facility.

**Advanced Fluid Mechanics Lab:** Desiccant analysis test rig.

**Tribology Laboratory:** Metallurgical Sample Saw, High-Temperature Tubular furnace, Ball mill, Disc Polishing Machine, Microscope, Pin on Disc Tribometer. Nano indenter with AFM attachment, Microwave heat treatment setup. Tumbler Ball milling setup.

**List of Software in CAD/CAM Laboratory:**

1.	Pro Engineer CREO	50 Users.
2.	Autocad	50 Users
3.	Ansys15.0	25 Users
4.	AnsysV10.0	10 Users
5.	MSCAdams	50 Users

6.	MSCatran	50 Users
7.	MSCastran	50 Users
8.	MSCMarc	50 Users
9.	MSCytran	50 Users
10.	CatiaP3	10 Users
11.	CATIANovia	05 Users
12.	CATIADelmi	05 Users
13.	CATIAPLMExpress	05 Users
14.	LMS AMESim (multi-domain system Simulation)	05 Users
15.	Unigraphics with Advanced Machining Module	05 Users
16.	Deform (Design Environment for FORMing	01 User
17.	AutodeskMoldflow	25 Users
18.	SimPACK (MBD Software)	25 Users
19.	MasterCAM	02 Users
20.	HyperWorks	05 Users
21.	RobotKit	02 Nos.
22.	ANSYS research license	(1 No)

**Materials Characterization Laboratory:** Vacuum Arc Melting Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine.

**Vibration and Condition Monitoring Laboratory:** Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, Single and tri-axial accelerometers, Data acquisition system (NI, HBM), Microphone and SLM, MicroEpsilon Laser displacement pickups, ADAMS, NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron, Labview.

**Robotics Laboratory:** Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors, Connecting Pins, Wires, LEDs Berg Strip, and Bread Board, Quadcopter Kit, Wall Following Robot.

**Metrology Laboratory:**

**A. Linear Measurements**

1. Vernier Caliper.
2. Vernier Depth Gauge.
3. Vernier Height Gauge.

**B. Micrometer**

4. External Micrometer.
5. Internal Micrometer.
  - Jaw Type Inside Micrometer.
  - Caliper Type Inside Micrometer.
6. Depth Micrometer.
7. Bench Micrometer.
8. Digital Micrometer.
9. Telescopic Gauge.

**C. Measurement Using Slip Gauge**

10. Calibration of Micrometer, Vernier Caliper.

11. Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge.
12. Measurement of Mean Distance between Surface and Spacing between Holes.
13. Measurement of Dovetail Angle and Checking the Taper Angle of the Taper Plug Gauge.
14. Checking An Angle Plate.
15. Study On Limit and Position Gauges.

**D. Linear and Angle Measurement**

16. Combination Set.

**E. Angle Measurement**

17. Universal Bevel Protractor.
18. Sine Bar.

**F. Flatness And Straightness Measurement**

19. Clinometer.

**G. Screw Thread Measurement**

20. Screw Pitch Gauge.
21. Screw Thread Micrometer.
22. Effective Diameter Measurement Using Two Wire and Three Wire Method.

**H. Gear Tooth Measurement**

23. Vernier Gear Tooth Caliper.
24. Tooth Span Micrometer.

**I. Study On Opto-Mechanical Instruments**

25. Tool Makers Microscope.
26. Measurement Using Comparator.

**J. Surface Roughness Measurement**

27. Surface Roughness Meter (SJ 301).

**Microsystems Laboratory:** MEMS Sensors Scanning Tunneling Microscope, Self Build Kit, Atomic Force Microscope, Comsol and Intellisuite (Courtesy: NMDC), Sugar Toolbox and MATLAB (Institute Network).

**Heat Transfer Laboratory:** Free convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube heat exchanger, Measurement of thermal conductivity of metal rod, Measurement of thermal conductivity of solids, Computerized vapour, compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal surfaces, Heat transfer through lagged pipe, Heat transfer through Forced convection, Computerized Air conditioning test rig,. Boiling heat transfer apparatus, Film and Dropwise condensation, Ice plant tutor, Parallel flow heat exchanger, Plate Heat exchanger, Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus, Humidifier-Dehumidifier.

**Machine Dynamics and Vibration Laboratory:** Kinematics of Epicyclic Gear, Kinematics of Cam Mechanism, Kinematics of Gear Train, Kinematics of Slider Crank Mechanism, Spring Mass System, Transmissibility Apparatus, Free Vibration of beam, Experimental Modal Analysis.

**CNC, Pneumatic and Electro-Pneumatic Laboratory:** Trainer Lathe, Trainer Milling Machine, Electro Pneumatic Trainer Kit with Cylinders and Control valves.

**IC Engine Research Laboratory:** MMM Vertical 4- Stroke Diesel Engine, Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, (a) Compression Ratio of given IC Engines, (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Gas Analyzer, Hydrogen fuelled SI Engine test rig, CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig.

**Fuels Laboratory:** Boys gas Calorimeter set (Calorimeter+ gas flow meter (0-1000ml), Redwood viscometer No.1, Saybolt Viscometer, TAR Viscometer (Redwood viscometer No.2, Instech Calorimeter, Flash point tester (Close-up), Barometer with room temperature no.597, Digital weighing machine (0-10 grams), Saybolt Viscometer (old), Bomb Calorimeter, Cleveland Flash & fire point apparatus, Weighing machine (0-2 kg), Flash and Fire point Tester.

**Theory of Machines Laboratory:** Spring mass system, Whirling shaft apparatus, Motorised. gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester (0-35kg), Digital dead weight tester (0-60kg), Digital dead weight tester (0-250kg), Planimeter set, Thermo-Hygrograph H-10/100%, Computerised Emission test set up, Single stage spur gear, Single stage spur gear with intermediate, Two stage spur gear, Three stage spur gear, Three speed and reverse gear, Worm gear, Bevel gear, Rack and quadrant gear drive, Reversing gear, Epicyclic gear (sun & planet), Cycloidal motion, Internal rolling gear drive, Internal gear and pinion drive spur gear.

**Automotive Electronics Laboratory:** IRIS CAR (Lab Car), with Breakout box, ECU, Injector Box, Wire harness, Communication Module, DC Power Supply, Function Generator, Oscilloscope, and Cut Section Models.

**Stress Analysis Laboratory:** Poloriscope, Strain measurement setup, Strain Indicator and Recorder.

**Fracture and Fatigue Laboratory**

**Fatigue setup**

**Applied Solid Mechanics:** Workstation with GPU.

**Solidification simulation laboratory:** Quick Cast casting simulation software.

**Solar Energy Laboratory:** Solar Air Heater, Pyranometer and Pyrheliometer.

**Vehicle Dynamics Laboratory:** Damper Testing Machine, Quarter Car Suspension Test Rig.

## 9. DEPARTMENT OF MINING ENGINEERING

**Rock Mechanics Laboratory:** Rock cutting machine, Compression testing machine, Schmidt hammer, Slake durability index apparatus, point load strength index apparatus, P-wave velocity apparatus, Los Angeles machine, and Other rock testing facilities.

**Drilling Laboratory:** Jack hammer drilling set-up, Air compressor, Modified lathe machine for rock cutting, horizontal and vertical coring machines.

**Rock Blasting Laboratory:** Minimates, Minimate plus, High-speed video camera, VOD monitor, Laser profile, WIPFRAG software.

**Mine Environmental Engineering Laboratory:** Water pollution monitoring kit, Respirable dust sampler, Manometer, Crossing point temperature, Digital Methanometer, CO detector, Psychomotor, Sound level meter, Gas testing set up, Exhaust gas analyzer, Multi-gas detector; High Volume sampler, Noise Dosi meter, Human Vibration Analyzer, Vibration Analyzer.

**Mineral Processing Laboratory:** Jaw Crusher, Roller Crusher, Rod Mill, Ball Mill, Bond' Work Index Setup, Electro Magnetic Sieve Shaker, Riffle Sampler, Jigging Machine, Wilfly's Table, Automatic Mineral Separator, Spiral Classifier, Density Separator Hydro Cyclone, Davis Tube Tester, Electro Magnetic Drum Separator-Wet, Electro Magnetic Drum Separator- Dry, Froth Floatation Cell, Sampling / Crushing / Grinding - Integrated Unit, Turbo Mixer, Micro Mill, Vacuum Filtration Unit, Disc Mill, Pot Mill, Double Deck Vibratory Screen Model, Infrared Drier, Spiral Concentrate, Sieve Shaker, Polishing Machine, Microwave Furnace, Optical Microscope.

**Mine Surveying Laboratory:** Prismatic Compass, Surveyor Compass, Vernier Theodolite, Micro-Optic Theodolite, Dumpy level, Auto level, Digital level, Total station, Handheld GPS, DGPS.

**Mine Planning and Design Laboratory:** Surpac, Minex, Sirovision, Jk Sim blast software, rocscience software.

**Mine Pollution Laboratory:** Water quality analyzer, High volume air sampler, Respirable dust sampler, Sound level meter, Opacity meter, Point sampler, Beta attenuation meter, and Weather monitoring station.

**Mine Health and Safety Laboratory:** Personal dust monitors, High volume sampler, Human vibration analyzer, Multigas detectors, Personal noise monitors, Frequency analyzer cum vibration analyzer, Ground vibration analyzers, Muscle Oxygen Meter.

**Internet of Thing Laboratory:** Wireless LoRa modules for ESP32, ESP32 Development Board, MQ7 - Carbon Monoxide (CO) Gas Sensor, MQ4 - Methane Natural Gas Sensor Module, DHT22 AM2302 Digital Temperature and Humidity Sensor, MQ-136-Hydrogen Sulfide Gas Sensor, 110-508 - NO2 Nitrogen Dioxide Sensor 5ppm, 110-602 - Sulfur Dioxide (SO2) Sensor 20ppm, MQ8 Hydrogen H2 Gas Sensor Module, MG811 Carbon Dioxide CO2 Sensor Module, 3.7V 4000mAh (Lithium Polymer) Lipo Rechargeable Battery Model KP-357090, Industrial Standard Methane Gas Sensor (CH4), Industrial Standard Carbon monoxide Gas Sensor (CO), Industrial Standard hydrogen Gas Sensor (H2), Industrial Standard Carbon dioxide Sensor (CO2), Industrial Standard nitrogen Sensor (N2), Industrial Standard nitrogen Sensor (N) oxides, Industrial Standard hydrogen sulfide Sensor (H2S), Industrial Standard Temperature and Humidity Sensor, [DLOS8N EC25] Multi-channel Outdoor Gateway With 3G/4G for LoRaWAN® - DLOS8N EC25 Accessories: 1. Pole, 2. Clamps & screws, 3. Wall plug, 4. SIM card (recharged for one year), Multi Gas Detector equipment, Portable Temperature & Humidity Data Logger.

## 10. DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

**Mechanical Testing Lab:** UTM, Instron, Wear testing machine, Hardness testers, Fatigue testing machine, rolling mill, Precision cutting machines, 250-ton Hydraulic press.

**Foundry Lab:** Permeability meter.

**Heat treatment Lab:** Heat treatment furnaces, Thermal cycle furnaces, Muffle Furnace.

**Extractive Metallurgy Lab:** Crushers, Ball mill, Floatation cells, C&S analyzer, Sieve analyzer.

**DSC Lab:** Differential Scanning Calorimetry.

**Advanced XRD Lab:** X-ray Diffractometer with GI XRD and HT XRD facility. Xpert High Score Plus Software for XRD data analysis.

**Transmission Electron Microscope Lab:** Transmission electron microscope, GATAN ion milling unit.

**Corrosion Lab:** Potentiostat and Impedance analyser.

**Coating Lab:** PVD facility, electron beam deposition set up. DC sputtering setup.

**XRD Lab (old):** X-ray Diffractometer.

**Microscopy Lab:** Optical Microscope, Inverted Microscope, Stereo Microscope.

**Specimen Preparation Lab:** Disc Polishing Machine, Automatic Polishing Machine, Hot Mount Machine.

**Powder Metallurgy & Nano Technology Lab:** Thermolyne High Temperature Furnace, Density Measurement Kit, Incubators – Ecogain series, Hot Air Oven.

**Casting Research Lab:** Contact Angle Analyser, Image analyzer, Instron tensile tester, Quenchometer, Stereo microscope, 2D Surface Profiler, Thermal conductivity meter K2 probe, Thermal, DAGE bond tester, Shimadzu Micro-Vickers Hardness tester.

**Simulation Lab:** High-Performance Computer.

**Metallurgical Failure Analysis Lab:** Disc Polishing.

A. **Thin Films and Coating Lab:** Spin coater, Dip coater, Spray Atomizer, hot plate, Screen printer.

B. **FTIR Lab:** FTIR spectroscopy, 4-probe, Near Normal Spectroscopic Reflectometer, Impedance Analyzer

**Ceramic Processing Lab:** Muffle Furnace, Vacuum and Inert gas furnace, Tubular furnace, Spray coating setup, Hot air Oven, Vacuum Oven, Density measurement kit, Incubator, UV- ozone cleaner, Hot plates, Magnetic stirrer.

**Physical Metallurgy Lab:** Metallography, Microhardness, Image Analyser, Dilatometer.

**Polymeric Materials Lab:** Hot air oven, Melt flow Index (D400 2HV), Conductivity meter, pH meter, Magnetic stirrer, Limiting Oxygen Index (LOI), Ultrasonic bath.

**Advanced Nanofiber Lab:** Electro spinning equipment, Vacuum oven, Shore A hardness tester, Shore A and Shore D hardness tester (Durometer), Viscometer.

**Surface Engg. & Materials Degradation Lab:** Furnace, Precision Cutter, Polishing Machine.

**Metal Joining Lab:** TIG Welding Machine.

**Functional Biomaterial Lab:** UV-Spectroscopy, Nanodrop Spectrophotometer and Bacteria Incubator.

**High-Temperature Materials Testing Lab:** High-Temperature Erosion Tester.

## 11. DEPARTMENT OF PHYSICS

### U.G Laboratory:

Experimental Kits (7 experiments of 5 sets each).

### P.G Laboratory I:

Experimental Kits (8 experiments of 2 sets each).

### P.G Laboratory II:

- Experimental Kits (8 experiments).
- Vacuum Coating Unit (2 no. s).

### M.Sc. Project Laboratory:

- Keithley Source Meter.
- DC – RF Sputtering Unit.
- Spray Pyrolysis Unit.
- Vacuum coating unit.

### Optoelectronics Laboratory:

- Optics Inc SD2000 spectrometer (UV vis spectra).
- Lux meter (Lutron).
- UVC Ozone Cleaning Unit.
- Thermal evaporator.
- Clean air flow bench.
- OLED measurement system.
- Keithley Sourcemeeter (model 2400).
- Jobin Yvon spectrometer with a CCD-based detector or a silicon photodiode (SM1PD2A Mounted UV Enhanced Silicon Photodiode, 200-1100 nm Cathode Grounded).
- Optical power meter (Ophir Optronics, model NOVA II with PD300-UVdetector).
- Keithley 6485 Picoammeter.
- Tektronix DMM 4040 6-1/2 Digit Precision Multimeter.
- Agilent 34972A LXI Data Acquisition/ Switch unit.
- Multioutput DC power supply model LQ6324.
- Agilent E4980A Precision LCR meter 20 Hz to 2 MHz.
- Tektronix TDS 2002B Two-channel Digital Storage Oscilloscope 60 MHz 1GS/sDH-3 UV-Vis-NIR Calibrated
- Light Source (Ocean Optics)
- RF Probe Station.
- ISO BRUKER Precision Cutting Machine.
- Q-switched Nd-YAG laser; Model GCR -170 from Spectra-Physics, USA.



**Crystal Growth Laboratory & Nanomaterials Laboratory:**

- Solution growth system for crystal growth.
- High-temperature furnace.
- Magnetron sputtering system.
- Thin film coating unit.
- Fume Head, Vacuum deposition system-Thermal, DC, RF coating system.

**Material Processing Laboratory:**

- CLEMEX Microhardness Tester.
- Physical vapour deposition.
- Polishing Machine.
- Muffle furnace (Max Temp 1000°C).
- Low-speed Diamond saw cutting Blade.
- Abbe refractometer.
- Analytical balance and Density kit.
- High-temperature furnace.
- P H Meter.
- U V Visible spectrometer.
- Incubator.
- Ultra sonicator.
- Computer Interfaced Microhardness Tester Density Kit.

**Energy Materials Research Laboratory:**

- Electrochemical Workstation (Bio-Logic SP150) (2 Nos).
- Mbraun Glove Box.
- Neware battery analyzer.
- Kiethly 2 probe and 4 probe measurement systems.
- Ocean Optics UV-Vis spectrometer.
- DC Spectrum Analyzer.
- Muffle Furnace.
- Weighing Balance.
- Battery Crimper set up.
- Sputtering Unit.
- Spin Coater.
- Spray Pyrolysis unit.
- Vacuum Oven.
- Hot air oven.
- Photoluminescence Spectrometer XRD.

**Computational Materials Science Lab:**

- Tyron Server,
- Software: VASP, QuantumATK, SIESTA, Gaussian.

**Computational Physics Laboratory:**

- Dell server (power edge),
- Software: VASP, Mathematica, Gaussian and Maple.

**Nonlinear Dynamics and Biophysics:**

Dell server power edge.

**Low Dimensional Physics Lab:**

Sputtering, Impedance analyser, SMU, dc probe station, etc.

**Multilayer Film Deposition Lab:**

- Keithley Source Meter.
- Vacuum coating and Sputtering unit.

**Cosmology Group:**

Computers, Printers.

## 12. DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING

**Hydraulics Laboratory:**

- Flow Measuring Units.
- Pumps, Water meters.
- Calibration Devices.
- Turbines.
- Hydraulic Machines.
- Pressure Gauges.
- Valves.
- Tilting flume.
- Pipe bursting unit.
- Ultrasound flow meter.
- Pressure Gauge Tester.

**Strength of Materials Laboratory:**

- Universal Testing Machine U.T.M 5 T, 40 T, 100 T, 200 T (Electronic).
- Hardness Testing M/c.
- Torsion Testing M/c.
- Hardness Testing M/c
- Fatigue Testing M/c.
- Impact Testing M/c.

**Marine – Geotechnical Laboratory:**

- Consolidation Apparatus.
- Direct Shear Apparatus.
- Photo Elastic Bench.
- Corrosion Measurement Voltage system.
- Optical Microscope.

**Wave Mechanics Laboratory:**

- Regular Wave Flume [50 X 0.71 X 1.1 m] – 3No.s
- Digital Storage Oscilloscope with software.
- Wave probe with DAQ software.

**Hydraulic Measurement Laboratory:**

- Ultrasonic Testing Kit.
- Electronic Balance.
- Granular Matrix Soil Moisture Sensors.
- Digital Soil Moisture and Temperature Recorder.
- Tipping bucket rain gauge.

- Basic Hydrology Unit.

**Remote Sensing & GIS Laboratory:**

- Computer systems: 20 No. s
- Printer, scanner.
- Stereoscopes.
- Ground truth Radiometer.
- Digital Planimeters.
- Aerial & Satellite Imagery.
- ARCPAD GPS, Garmen GPS.
- DGPS.
- Total station.
- Software: ERDAS- Imagine, ARCGIS.
- ENVI 5.4.
- Open-Source GIS.
- R software.

**Computer Laboratory:**

- Computer systems: 10 No.s
- Groundwater Modelling Software (GMS).
- Water Management Software. (WMS).
- Aqua Chem software.
- SWAT CUP.
- MATLAB.
- Scanner, Laser printer.

**Computational Hydrodynamics Laboratory**

- Computer systems: 10 No.s
- Open-Source REEF 3D.
- MATLAB.
- MIKE 21 software.
- SACS software.

**Advanced Structural Mechanics Lab**

- Fretting Wear Testing Machine.

**Structural Dynamics Lab**

- Shake Table.
- Building models.
- Accelerometers.
- LVDT.
- Ship/sloshing tanks.
- Load cells.

**Experimental Stress Analysis Lab:**

- Strain Rosette.
- Stress gauge.
- Measurement of Shear number.
- Temperature Compensation.
- Rectangular delta.

**Unmanned System Research Laboratory:**

- 3D Modelling with Aerial Imaging.
- Octocopter with multispectral Imaging.
- Open-source Simulation for Design.
- Underwater Remotely Operated Vehicle.
- Marine Surface Vehicle for inspection.
- Thermal and RGB Inspection Unit.
- Open-Source Fluid-Structure Interaction Setup.

**13. SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT**

**Computer Laboratory:** SPSS, Palisade Decision Tools Suite, CMIE Prowess Database, CRISIL Research Reports, Tableau Software.

**Itell Language Laboratory:** Software from Logitech Solutions Itell catering to 500+1 users.

**New Computer Lab:** One Server with 30 Desktop Computers.

**14.5 Workshops in the Departments**

**1. DEPARTMENT OF CIVIL ENGINEERING**

Lathe, shearing machine, drilling machine, Grinding machine.

**2. DEPARTMENT OF MECHANICAL ENGINEERING**

**Machine Shop - I:** Center Lathe, Heavy duty Center Lathe Geared head Center Lathe, Shaping machine, Universal Milling Machine, Heavy-duty pillar type drilling machine, Light duty pillar type drilling machine, Pedestal grinding machine, Capstan Lathe.

**Machine Shop - II:** Surface Grinding Machine, Cylindrical Grinding Machine, Capstan Lathe, Horizontal Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner, Cutter Grinding Machine, Heavy Cylindrical Grinding Machine, CNC Milling Centre, CNC Turning Centre, Heavy Duty Shearing Machine, Hydraulic Press, Heavy Duty Radial Drilling Machine, Hydraulic Radial Drilling Machine, Universal Milling Machine, Centre Lathe, Hydraulic Compressor. High-speed drilling machine, Shearing Machine

**Carpentry Shop:** Wood turning lathe, Circular saw, Carpentry bench vise and table.

**Fitting Shop:** Bench vise with table, Surface plate, Anvil Power Tool, 5. Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, shearing machine, grinding machine, Circular saw, Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jigsaw, Hammer drilling, Core cutter drilling machine.

**Sheet Metal Shop:** Soldering table, Bench vise, Shearing machine.

**Welding laboratory:** Metal inert gas welding, Resistance spot welding, Tungsten inert gas welding

**Foundry laboratory:** Sand sieving machine, Aluminium melting furnace

**3. DEPARTMENT OF MINING ENGINEERING**

A high-end DST-SERB Sponsored Karyashala (under Acceleratevigyan scheme) workshop on “Safety Data Analytics Applications in Mining and Other Core Industries,” during 06-12 March 2024.

**14.6 Major Equipment in the Departments**

**1. DEPARTMENT OF CHEMICAL ENGINEERING**

- Gas Chromatograph
- Keftigerated Centrifuge
- Quartz Immersion well Reactor
- Electro Spinning equipment
- Bench Top Fermentor
- Particle Size Analyser
- Freeze Dryer
- Gel Documentation
- Thermogravimetric Analyser
- HPLC
- LC-MS
- ICP-OES
- FPLC
- Fermenter
- Real time Polymerize chain reaction machine
- biosafety cabinet level II

## **2. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

- HP Desktop Computer Systems - Core i7, 16GB RAM, 1TB Hard disk
- HP Elite Desk 705 G1 TWR
- Dell OptiPlex 5000-05
- Dell Inspiron 3250 Mini
- IBM E Server with accessories
- Dell High-End Server T610
- Dell Power Edge Server R420
- Dell Power Edge Server R720
- Dell power edge server T630
- Dell Server PE 730XD
- Dell Server (R740)
- C-Boston Sys- 5038K-j-KNL Development Workstation
- Dell R7 power edge R7404 rack server
- Dell High-End Workstation (DT Precision 5820)
- Dell Precision 5820 Workstation
- Lenovo workstation(P700)
- Lenovo Think station S30 workstation with 24" LCD monitor
- Lenovo Think center S-20 & D-20 workstation
- DELL R750 PowerEdge server

## **3. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

1. Function Generator, Model: SDG2082X, Make: SIGLENT, 07 Nos., Rs. 3.66Lakhs
2. HP Elite Tower 600G9 Desktop, 12th Gen Intel Core i7-12700, 32 GB RAM, 1TB SSD, 500GB HDD, 15 Nos., 16.70 Lakhs
3. Digital Storage Oscilloscope 4 Channel, Model: SDS2104X Plus, Make: SIGLENT 2 Nos., Voltage Differential Probes, 2 Nos., Rs. 4.33 Lakhs

4. TBS1102C Digital Storage Oscilloscope 2 Channel, 5 Nos.4.72 Lakhs
5. CALIBER AI-ML-Lab workstation with adequate GPU Support with Accessories, 1 No., 16.50 Lakhs
6. TBS1072C Digital Storage Oscilloscope, 4 Nos., Rs. 2.34 Lakhs
7. Analog to Digital Converter 8 Channels & Encoder 2 channels, 1 No., Rs. 2.12 Lakhs
8. Digital Storage Oscilloscope, 2 Nos., Rs. 5.05 Lakhs
9. Nvidia RTX A6000 48GB GDDR6 with error correcting code (ECC)/NVLink Bridge 2 Slot,1No., Rs. 3.49 Lakhs
10. myCobot 280 Jetson Nano 6 DOF Collaborative Robot (Jetson Nano Version), 1 No., Rs. 1.44 Lakhs
11. IM3523 (LCR Meter with Calibration Certificate and 9140-10 4- Terminal probe), 1 No., Rs. 1.99 Lakhs
12. APLAB make CVCC type 12.5KW DSP based DC Power Supply, 1 No., Rs. 4.77 Lakhs
13. Permanent Magnet Synchronous Motor, 1 No., Rs. 1.82 Lakhs
14. Precision Earth Tester, 2Nos., Rs. 2.98 Lakhs
15. Current Probe RP1002C, 3Nos., Rs. 4.52 Lakhs
16. HP 600G9 Elite Tower Desktop, 13th Gen Intel Core i7-13700,32 GB RAM, 1TB SSD,1TB HDD, NVIDIA T400 4GB Graphic Card, 16Nos., Rs. 20.68 Lakhs
17. Linear Integrated Circuit Trainer Kit, 10 Nos., Rs. 1.71 Lakhs

#### 4. DEPARTMENT OF MECHANICAL ENGINEERING

- Vacuum Arc Melting Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine
- Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, Single and tri-axial accelerometers, Data acquisition system (NI, HBM), Microphone and SLM, MicroEpsilon Laser displacement pickups, ADAMS, NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron, Labview
- Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors, Connecting Pins, Wires, LEDs Berg Strip, and Bread Board, Quadcopter kit, Wall Following Robot
- **Linear Measurements:** Vernier Caliper, Vernier Depth Gauge, Vernier Height Gauge
- **Micrometer:** External Micrometer, Internal Micrometer, Jaw Type Inside Micrometer, Caliper Type Inside Micrometer, Depth Micrometer, Bench Micrometer, Digital Micrometer, Telescopic Gauge
- **Measurement Using Slip Gauge:** Calibration of Micrometer, Vernier Caliper, Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge, Measurement of Mean Distance between Surface and Spacing between Holes, Measurement of Dovetail Angle and Checking the Taper Angle of Taper Plug Gauge, Checking an Angle Plate, Study on Limit and Position Gauges
- **D.Linear and Angle Measurement:** Combination Set.
- **E. Angle Measurement:** Universal Bevel Protractor, Sine Bar
- **F. Flatness and Straightness Measurement:** Clinometer
- **G. Screw Thread Measurement:** Screw Pitch Gauge, Screw Thread Micrometer, Effective Diameter Measurement Using Two Wire and Three Wire Method.
- **H. Gear Tooth Measurement:** Vernier Gear Tooth Caliper, Tooth Span Micrometer
- **Study On Opto-Mechanical Instruments:** Tool Makers Microscope, Measurement Using Comparator
- **Surface Roughness Measurement:** Surface Roughness Meter (SJ 301)
- **Micro heat pipe test rig, Vapour pressure determination test rig, Weather simulation chamber & Window air conditioner test rig, Thermoelectric refrigeration test rig, 2 Stage VCR test rig with intercooler, Condenser pressure variation VCR test rig, Vortex tube refrigeration test rig, Air engine test rig**



- MEMS Sensors, Scanning Tunneling Microscope, Self Build Kit, Atomic Force Microscope, Comsol and Intellisuite (Courtesy: NMDC), Sugar Toolbox and MATLAB (Institute Network)
- Free convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube heat exchanger, Measurement of thermal conductivity of metal rod, Measurement of thermal conductivity of solids, Computerized vapour compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal surfaces, Heat transfer through lagged pipe, Heat transfer through Forced convection, Computerized Air conditioning test rig, Boiling heat transfer apparatus, Film and Dropwise condensation, Ice plant tutor, Parallel flow heat exchanger, Plate Heat exchanger, Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus
- Kinematics of Epicyclic Gear, Kinematics of Cam Mechanism, Kinematics of Gear Train, Kinematics of Slider Crank Mechanism, Spring Mass System, Transmissibility Apparatus, Free Vibration of beam, Experimental Modal Analysis
- Trainer Lathe, Trainer Milling Machine, Electro Pneumatic Trainer Kit with Cylinders and Control valves
- MMM Vertical 4- Stroke Diesel Engine, Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, Compression Ratio of given IC Engines (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Gas Analyzer, Hydrogen fuelled SI Engine test rig, CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig
- Boys gas Calorimeter set (Calorimeter+ gas flow meter (0-1000ml), Saybolt Viscometer, Redwood viscometer, TAR Viscometer (Redwood viscometer, Instech Calorimeter, Flash point tester (Close-up), Barometer with room, temperature no.597, Digital weighing machine (0-10grams), Saybolt Viscometer(old), Bomb Calorimeter, Cleveland Flash & fire point apparatus, Weighing machine (0-2 kg)
- Spring mass system, Whirling shaft apparatus, Motorised gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester(0-35kg), Digital dead weight tester(0-60kg), Digital dead weight tester(0-250kg), Planimeter set, Thermo-Hygrograph H-10/100%, Computerised Emission test set up, Single stage spur gear, Single stage spur gear with intermediate, Two stage spur gear, Three stage spur gear, Three speed and reverse gear, Wormgear, Bevel gear, Rack and quadrant gear drive, Reversing gear, picyclic gear (sun & planet), Cycloidal motion, Internal rolling gear drive, Internal gear and pinion drive spur gear
- IRIS CAR (Lab Car), with Breakout box, ECU, Injector Box, Wire harness, Communication Module, DC Power Supply, Function Generator, Oscilloscope, Cut Section Models
- Center Lathe, Heavy duty Center Lathe, Geared head Center Lathe, Shaping machine, Universal Milling Machine, Heavy-duty pillar type drilling machine, Light duty pillar type drilling machine, Pedestal grinding machine, Capstan Lathe.
- Surface Grinding Machine, Cylindrical Grinding Machine, Capstan Lathe, Horizontal Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner, Cutter, Grinding Machine, Heavy Cylindrical Grinding Machine, CNC Milling Centre, CNC Turning Centre, Heavy Duty Shearing Machine, Hydraulic Press, Heavy Duty Radial Drilling Machine, Hydraulic Radial Drilling Machine, Universal Milling Machine, Centre Lathe, Hydraulic Compressor
- Wood turning lathe, Circular saw, Carpentry bench vise and table

- Bench vise with table, Surface plate, Anvil, Power Tool, Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, Shearing machine, Grinding machine, Circular saw, Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jigsaw, Hammer drilling, Core cutter drilling machine
- Soldering table, Bench vise, Shearing machine
- Subsonic wind tunnel
- Experimental Modal Analysis, Tuned Impulse Hammer, Modal Analysis Software, Forced Vibration Analysis, Minishaker with controller
- Moulding facility
- Pin on Disc Tribometer, Metallurgical Sample Saw, High-Temperature Tubular furnace, Ball mill, Disc Polishing Machine, Microscope, sigma Z blade mixer
- Free and forced vibration setup with controller, Impact hammer, Tri-axial accelerometer, Electrodynamics shaker, Analyzer, closed-loop controller, force sensor, impedance head
- Low-speed compressor cascade test facility, Low-speed turbine cascade test facility, Centrifugal blower test rig
- Desiccant analysis test rig
- 3-D Printing, Material Extrusion, Fused Deposition Modeling based 3-D Printer, Single Screw Extruder

## 5. DEPARTMENT OF MINING ENGINEERING

1. Differential Global Positioning System (DGPS)
2. Triaxial accelerometer SV 38 V along with a data logger SV106 (Manufacture: Svantech)
3. Permanent License for Virtual Nanolab with Quantum Wish Toolkit for Nanotechnology Simulation (Software) (Manufacture: M/s. Integrated Microsystems)
4. Muscle Oxygen Meter
5. Microwave Furnace
6. Optical Microscope
7. Vibration Analyzer
8. Multi-Gas Detector
9. Personal Dust Sampler
10. Respirable Dust Sampler

## 14.7 Hospital, Post Office, Banks, Shopping Centre

**Hospital:** One Health Care Center with the services of regular doctors and visiting expert doctors is available. Required medicines are also made available in the Health Care Centre.

**Post Office:** The Post Office is available within the Campus.

**Banks:** Two banks (SBI and Canara Bank) are functioning within the Campus. 2 ATMs (2 of SBI and 2 of Canara Bank) are available at different locations within the campus.

**Shopping Centers:** Two Shopping Complexes are available within the campus accommodating about 15 shopping rooms which include a Saloon, Beauty Parlors, Printing and Photocopy, Vegetable outlet, Bakery, Tailoring, Cloth Shop, Milk parlors, food outlets, etc.

## 14.8 Physical Education

### Physical Education and Sports Facilities across the Campus

400mtr Athletic Track, Volleyball court fencing wall, Renovation of Multi gym in Mega Hostel, Drinking water facilities with cooler for all the sports venues, Additional indoor badminton court (Vinyl mat flooring), and the multipurpose hall has been used for TT, Chess and Carom.

## **1. Indoor Facilities**

### **New Sports Complex**

- Multi Gym: State-of-the-art infrastructure multi gym spread in 5000 sqft carpet area highly equipped with cardio equipment and all modern equipment.
- Indoor Kabaddi Court of 5000sqft with two (2) Nos. of kabaddi mat
- Multi-Purpose Hall of 5000 sq. ft used for Chess, Carom, Table Tennis, and other recreational games.
- Yoga hall of 5000sq.ft with capacity of 250 members
- Badminton Court - 5000sq.ft of international standard 3 Badminton wooden court
- TT / indoor Volleyball Court– Eight (8) nos. TT table, Volleyball court with vinyl mat flooring of 5000sq.ft.
- Billiard Hall with 2 billiard tables of 2000 sq. ft.

### **Old Sports Complex (spread over an area of approx. 10,000 sq. ft)**

- Indoor Badminton – Three (3) badminton courts with concrete floors.
- Five (5) Table Tennis Tables.

### **Old Multi Gym near Mega Hostel Tower for Boys spread in 6000 sq. ft area.**

## **2. Outdoor Facilities**

1. 400 m International standard Athletic track -1
2. Cricket ground with Turf -1
3. One more cricket ground is under construction.
4. Cricket Net Practice Zone. Three Pitches with a Net cage. One is Cemented and two are turf.
5. Football field -2
6. Handball - 1
7. Kho–Kho Court - 2
8. Hockey field - 1
9. Outdoor Volleyball Court with floodlit - 3
10. Outdoor Throw ball Court with floodlit - 2
11. Outdoor Basketball Court with floodlit - 3
12. Tennis Court – 4 nos. (1 Synthetic as per ATF standard and 3 mud court)
13. Swimming pool – International standard swimming pool (50m) with gallery {presently it is under maintenance}

### **Sports and Games:**

#### **• Outdoor Sports**

- ❖ Athletics.
- ❖ Swimming
- ❖ Football
- ❖ Volleyball
- ❖ Handball
- ❖ Hockey
- ❖ Kho-Kho

- ❖ Kabaddi
- ❖ Cricket
- ❖ Basketball
- ❖ Lawn Tennis

- **Indoor Sports**

Modern 3 storied Indoor Sports Complex with state-of-the-art facilities which include:

- ❖ Kabaddi
  - ❖ Modern Fitness Centre (Multi-Gym, Cardio station, Treadmill, etc.)
  - ❖ Yoga & Meditation
  - ❖ Carom and Chess
  - ❖ Billiards and Snooker (2 Tables)
  - ❖ Badminton Court
  - ❖ Table Tennis, Indoor Volleyball Court
- 
- **Multi Gym near Mega Hostel Tower for boys.**
  - **The Independent Basketball court at the Girls' Hostel premises with floodlit**

## **14.9 Staff Quarters**

**Staff quarters:** 245 numbers of Faculty Quarters and 176 numbers of non-faculty staff quarters are available in the Campus.



## **15. RIGHT TO INFORMATION ACT (RTI 2005)**

The Right to Information Act, 2005 empowers citizens to get information from any 'public authority'. The Central Public Information Officer (CPIO) of a public authority plays a pivotal role in making the right of a citizen to information a reality. The Act casts specific duties on him and makes him liable for penalty in case of default.

### **RIGHT TO INFORMATION UNDER THE ACT**

A citizen has a right to seek such information from a public authority that is held by the public authority or which is held under its control. This right includes inspection of work, documents, and records; taking notes, extracts or certified copies of documents or records; and taking certified samples of material held by the public authority or held under the control of the public authority. The Act gives the citizens a right to information at par with the Members of Parliament and the Members of State Legislatures. Right to Information Cell was established as per the MHRD letter No. F.19- 31/2005-TS- III dated 20.09.2005.

Suo-Moto disclosures are uploaded on the NITK website under the RTI section. These disclosures are mandatory and are crucial to ensure transparency and accountability. This would reduce the load of RTI Applications which are freely available to citizens. The 205 numbers of RTI Applications were received during the year 2023-24 (from 01.04.2023 to 31.03.2024).



## 16. FINANCE AND ACCOUNTS

### Expenditure position for the last Five years

Year	Oh.35 (Capital)	Revenue Grant 31&36	Total
2019-20	1094.76	16311.21	17405.97
2020-21	2595.03	14750.97	17346.00
2021-22	2096.74	16808.35	18905.09
2022-23	4278.71	19772.41	24051.12
2023-24	1705.48	20826.03	22531.51

BALANCE SHEET AS AT 31-03-2024			
			(AMOUNT ₹)
PARTICULARS	SCH. NO.	CURRENT YEAR	PREVIOUS YEAR
<b>SOURCE OF FUNDS :</b>			
CORPUS/CAPITAL FUND	1	91,84,15,774	88,49,02,009
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2	4,07,53,80,382	3,85,46,31,658
LOANS/BORROWINGS	3	1,04,04,27,751	1,14,84,78,970
CURRENT LIABILITIES AND PROVISIONS	3 (A)	7,28,17,10,406	6,80,34,23,167
<b>TOTAL</b>		<b>13,31,59,34,312</b>	<b>12,69,14,35,803</b>
<b>APPLICATION OF FUNDS :</b>			
FIXED ASSETS	4		
Tangible Assets	4(A)+(D (b ))	7,02,46,13,009	6,18,71,70,822
Intangible Assets	4(B)	2,72,20,315	1,81,25,988
Capital Works-In-Progress	4(C)	23,39,37,957	83,28,02,463
INVESTMENTS FROM EARMARKED/	5		
ENDOWMENT FUNDS			
Long Term		2,21,10,66,254	3,91,88,66,999
Short Term		1,85,85,30,970	-
INVESTMENTS - OTHERS	6	1,25,46,65,793	-
CURRENT ASSETS	7	11,65,46,854	1,21,33,71,492
LOANS, ADVANCES & DEPOSITS	8	58,93,53,160	52,10,98,038
<b>TOTAL</b>		<b>13,31,59,34,312</b>	<b>12,69,14,35,803</b>
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	24		

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2024			
			(AMOUNT ₹)
PARTICULARS	SCH.NO.	CURRENT YEAR	PREVIOUS YEAR
<b>INCOME:</b>			
ACADEMIC RECEIPTS	9	50,08,43,766	50,60,53,900
GRANTS/SUBSIDIES	10	2,08,26,02,384	1,97,72,41,733
INCOME FROM INVESTMENTS	11	6,51,33,034	3,71,06,251
INTEREST EARNED	12	13,35,363	28,09,981
OTHER INCOME	13	40,83,56,170	32,33,72,803
OTHER RESEARCH PROJECTS	13 A	12,98,14,948	8,39,71,014
PRIOR PERIOD INCOME	14	32,11,502	1,32,128
<b>TOTAL (A)</b>		<b>3,19,12,97,167</b>	<b>2,93,06,87,809</b>
<b>EXPENDITURE:</b>			
STAFF PAYMENTS & BENEFITS	15	1,70,78,06,834	1,52,77,59,285
ACADEMIC EXPENSES	16	52,68,10,872	50,79,57,107
ADMINISTRATIVE & GENERAL EXPENSES	17	40,43,80,712	28,65,08,030
TRANSPORTATION EXPENSES	18	15,23,474	15,65,034
REPAIRS & MAINTENANCE	19	12,77,43,657	14,05,49,781
FINANCE COST	20	5,86,75,843	7,44,44,899
DEPRECIATION	4	40,07,75,547	38,09,18,232
OTHER EXPENSES	21	13,51,46,992	7,94,64,095
PRIOR PERIOD EXPENSES	22	1,41,35,972	-
<b>TOTAL (B)</b>		<b>3,37,69,99,903</b>	<b>2,99,91,66,463</b>
<b>BALANCE:</b>			
EXCESS OF EXPENDITURE OVER INCOME	(B-A)	<b>18,57,02,736</b>	<b>6,84,78,654</b>
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	24		

RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31-03-2024						(AMOUNT ₹)
RECEIPTS		Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
<u>Opening Balances:</u>				Establishment and Administrative expenses	2,33,79,84,757	1,90,99,35,326
(a) Cash in hand		11,088	22,596			
<u>(b) Bank Balances:</u>				Payments Against Earmarked/Endowment Funds	40,33,19,561	16,47,86,976
(i) In current accounts		13,47,22,877	19,64,09,174			
(ii) Savings accounts		5,15,65,123	2,19,91,566	Payments Against Sponsored Projects/Schemes	15,90,44,183	7,61,87,850
(iii) HEFA accounts		5,58,157	4,30,50,812			
(iv) TSA accounts		-	26,70,44,487	Investments	3,36,43,89,372	3,22,80,53,126
<u>Grants Received:</u>				Expenditure on Fixed Assets & Capital WIP	64,84,47,557	1,60,53,64,653
(a) From Govt. of India						
Capital Grant	20,05,00,000			Deposits & Advances	1,99,35,35,463	1,94,12,01,987
Revenue Grant	2,08,26,02,850					
	2,28,31,02,850			Any Other Payments	1,15,42,10,214	1,29,86,84,199
Less : Refund	2,99,52,502	2,25,31,50,348	2,13,80,67,871			
(b) From State Government		-	-	<u>Closing Balances:</u>		
				(a) Cash in hand	31,141	11,088
Academic Receipts		50,09,87,972	77,82,20,446	(b) Bank Balances:		
				(i) In current accounts	9,34,08,096	13,47,22,877
Receipts Against Earmarked/Endowment Funds		61,90,26,078	53,24,90,897	(ii) Savings accounts	46,55,815	5,15,65,123
				(iii) HEFA accounts	5,56,979	5,58,157
Receipts Against Sponsored Projects/Schemes/Plan		82,48,78,230	91,59,23,447	(iv) TSA accounts	-	-

Income on Investments		6,51,33,034	3,74,79,457			
Interest Received SB		8,11,468	18,66,190			
Deposits & Advances		2,17,72,14,139	1,98,28,41,770			
Investments Encashed/matured		2,79,33,47,979	2,61,66,88,043			
Any other receipts		73,81,76,644	87,89,74,606			
<b>TOTAL</b>		<b>10,15,95,83,137</b>	<b>10,41,10,71,362</b>	<b>TOTAL</b>	<b>10,15,95,83,137</b>	<b>10,41,10,71,362</b>

**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL**  
SRINIVASNAGAR, MANGALORE - 575 025 INDIA



# **AUDIT REPORT**

## **2023-24**

Website : [www.nitk.ac.in](http://www.nitk.ac.in)  
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**SEPARATE AUDIT REPORT OF THE COMPTROLLER & AUDITOR  
GENERAL OF INDIA ON THE ACCOUNTS OF NATIONAL  
INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL FOR  
THE YEAR ENDED 31<sup>ST</sup> MARCH 2024**

1. We have audited the attached Balance Sheet of National Institute of Technology Karnataka, Surathkal as at 31<sup>st</sup> March 2024 and the Income & Expenditure Account / Receipts & Payment Account for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The audit on the accounts of the Director, National Institute of Technology Karnataka, Surathkal is entrusted under the NIT Act 2007 further amended NITSER Act 2012. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules and Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Reports / CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material mis-statements. An audit includes examining on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

**4. Based on our audit, we report that:**

- i) We have obtained all the information and explanations, which to the best of our knowledge and belief, were necessary for the purpose of our audit.
- ii) The Balance Sheet and Income & Expenditure Account/Receipt & Payment Account dealt with by this report have been drawn up in the format approved by the Ministry of Education, Government of India.
- iii) In our opinion, proper books of accounts and other relevant records have been maintained by the Institute in so far as it appears from our examination of such books.
- iv) We further report that:

**A. COMMENTS ON ACCOUNT:**

**NIL**

**B. FINANCIAL POSITION**

During the financial year 2023-24, NITK received a total grant ₹ 22831.03 lakhs (Capital grants ₹ 2005.00 lakh, Revenue grants ₹ 20826.03 lakhs), out of which ₹ 22531.51 lakhs were utilized and ₹ 299.52 lakhs refunded to MoE leaving an unutilized balance of 'Nil' as on 31<sup>st</sup> March 2024.

**C. Revision of accounts:**

The annual accounts of the Institute was revised and submitted on 26.8.2024.

The impact of the revision is as follows:

- 1. The impact on Sources of funds and Application of funds was nil.
- 2. The income was increased by ₹ 2,56,03,511/-from ₹ 316,56,93,656/- to ₹ 319,12,97,167/-.

3. The expenditure was increased by ₹ 15,560,492/- from 3,36,14,39,411/- to ₹ 3,37,69,99,903/-.
4. The excess of expenditure over income was decreased by ₹ 1,00,43,019/- from ₹ 19,57,45,755/- to ₹ 18,57,02,736/-.

#### **D. MANAGEMENT LETTER**

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, National Institute of Technology Karnataka, Surathkal through a Management Letter issued separately for remedial/corrective action.

- (v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipt & Payment Account, dealt with by this report are in agreement with the books of accounts.
- (vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements, read with the Accounting Policies and Notes on Accounts and subject to significant matters stated above and other matters mentioned in **Annexure** to this Audit Report, give a true and fair view in conformity with accounting principles generally accepted in India:

- a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Karnataka, Surathkal as at 31 March 2024; and
- b. In so far as it relates to Income & Expenditure Account of the deficit for the year ended on that date.

For and on behalf of the C&AG of India.



**PRINCIPAL DIRECTOR OF AUDIT(CENTRAL)**

**BENGALURU**

## **ANNEXURE**

**1. Adequacy of Internal Audit system**

There is a separate Internal Audit Wing (IAW) functioning in the Institute conducting audit regularly every year..

**2. Adequacy of Internal Control System**

The prevailing internal control system is adequate. The IAW covers all areas of transactions like receipt and utilization of grants, IRG, construction activities, transactions related to funds etc. Four members from the Accounts section (Joint Registrar, Assistant Registrar A/c's, Sr. Superintendent) are involved in the preparation of Annual accounts and assisted by a Chartered Accountant.

**3. System of physical verification of fixed assets**

Physical verification of fixed assets for the period 2023-24 has been carried out by the Institute..

**4. System of physical verification of Inventory**

Physical verification of the inventory for the period 2023-24 has been carried out by the Institute.

**5. Regularity in payment of statutory dues**

The Institute is exempted from payment of income tax under Section 12 of the Income Tax Act. All the statutory dues of the institute towards EPF and ESI were remitted within the stipulated date.

  
**PRINCIPAL DIRECTOR OF AUDIT(CENTRAL)**  
**BENGALURU ,**

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL

P.O. SRINIVASNAGAR, MANGALORE - 575 025 INDIA

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# DIRECTOR'S REPORT

## Introduction

National Institute of Technology Karnataka, Surathkal is located on the Northern side of Mangaluru city in Dakshina Kannada District on the National Highway (NH 66). Formerly known as Karnataka Regional Engineering College, it was started in the year 1960, second among the first batch of eight RECs set up in the country. It was upgraded to NIT and conferred Deemed University status w.e.f. 26<sup>th</sup> June 2002 and now holds a statutory status as "Institute of National Importance" by NIT Act, notified on 15th August 2007, further amended and notified as NITSER Act 2012.

During the year, NITK achieved significant growth in various spheres of its activities including infrastructure augmentation, teaching, research, publications, testing & consultancy, student training, extra-curricular activities and placements. These enabled NITK being placed amongst the top technical institutions in the country. This has been possible through the dedicated efforts of faculty, staff and students, coupled with the goodwill of parents, alumni and industry, and generous support from the Government and other agencies.

This report highlights the notable achievements and initiatives during the year 2023-24.

## Governance:

NITK is governed by the Board of Governors, as per the NITSER Act 2012 and Statutes laid down by the Govt. of India. The Board consists of representatives from Govt. of India, Govt. of Karnataka, Industry, Educationists and the Institute Senate. The Director is the Executive Head of the Institute. The day-to-day activities are carried out by the Director, with the support of Deans, Registrar, Heads of Departments, Professor-in-charge of various activities and other functionaries of the Institute. Several committees have been formed to facilitate decision-making process, effective.

## Faculty and Staff:

Human resource is the major factor contributing to the success achieved in different spheres of activities at NITK. During the period of the report, the total number of faculty and non-faculty are 276 and 179 respectively. This includes 22 new faculty and 87 new non-teaching staff members inducted in the year. Another round of recruitments are planned to fill vacant positions.

## Institute Ranking:

The NITK has secured 12<sup>th</sup> Rank in all India Ranking for Engineering by the NIRF and secured 38<sup>th</sup> position in overall ranking category in the year 2023.

## Financial Support:

There has been an increase in Revenue and Capital grants, as well as student intake, R&D funding, Testing & Consultancy output and initiation of a few new infrastructural projects. The total internal revenue generation through fee collection and other receipts were ₹ 97.89 crores. Our Corpus fund and Institute Development fund has grown steadily to about ₹ 310.30 crores.

## Academic Activities:

Presently, NITK offers B.Tech programs in 11 disciplines and M.Tech programs in 26 specializations. Other masters level programs include MSc (in Physics and Chemistry departments), MBA (in the School of Humanities, Social Sciences & Management), and MCA (in Mathematics and Computer Science

department). Further, M.Tech (Research) programs are offered in all PG specializations, with a few seats offered under self-financed category. Doctoral research is undertaken by PhD scholars registered in all the departments.

For the academic year 2023-24, about 1018 students were admitted to the B.Tech. Program based on their scores in JEE-Mains Examinations, 653 in M. Tech and M. Tech (Research) through GATE, 94 in M.Tech (self-financed category), 68 in MSc, 56 in MBA and 68 in MCA programs. A total of 139 students joined the Doctoral programs. There are about 1120 Research Scholars in the Institute and during the reference year, 126 were awarded PhD degrees.

The academic performance of students continues to be excellent with an overall pass percentage of more than 98.95%. A significant number of our students have succeeded in securing admissions in prestigious Universities/ Business Management Schools in India and abroad as a result of their excellent performance in GATE, CAT and other associated examinations.

### **R & D Activities:**

The faculty, students and project staff of NITK are working in a range of important fields through their R&D activities. These include environment-friendly construction technology & materials, earthquake resilient buildings, water harvesting & management, breakwater designs, green energy systems, energy from agricultural waste, GIS & remote sensing, systems engineering for vehicles, EV charge management, alternative energy sources for vehicles, developing useful chemicals from agricultural waste products, carbon-free processes of chemical & ore extractions, removal of heavy metals from contaminated water by adsorption using activated carbon, upgrading tyre pyrolysis oil, desalination, environment-friendly mining, rock blasting, extraction and mineral processing, developing green processes for material extraction & manufacturing, jute applications in soil erosion & land sliding, vehicle dynamics studies and intelligent suspension system, 5G applications in engineering systems, aerial & underwater communication, wireless interfaced IC technology for data transfer, AI & ML applications in engineering and e-governance, and many other fields.

The research is funded internally, as well as through several government agencies including DST (CRG, BIRACS and TARE schemes), DRDO, ISRO and others. NITK is a Regional Academic Center for Space (RAC-S) and coordinates with ISRO for managing projects in the Southern region. The RAC-S handled about 60+ projects in the last year, involving about ₹ 19 crores. NITK has recently set up a CoE in Digital Manufacturing, supported by Siemens. The 'Central Research Facility' houses advanced equipment for material characterization, which are used by researchers from various departments of NITK as well as those from other institutes.

The R&D knowledge has been widely shared through publications in top international and national journals. In the last five years, there have been 9+ publications and 55+citations per faculty per year, which is comparable to the top institutes worldwide. There is also a jump in IP filing, now averaging 10 patents/year during the last 5 years.

### **Infrastructural Facilities:**

In the financial year 2023-24, a new boys' hostel with 200 triple-occupancy rooms was constructed through CPWD, costing about ₹ 43 crores. This hostel, as well as two other hostels, one for girls and another for PG students, were inaugurated by the Hon'ble Prime Minister of India on 20<sup>th</sup> February, 2024. New infrastructure projects under construction include Lecture Hall Complex - D, swimming pool, and extension of electrical lines from 33KV substation to residential area with underground cabling.

### Industry-Institute Collaborations:

NITK has signed MoUs with leading industries, research labs, academic institutions in India and abroad and other organizations to facilitate student internships, faculty/staff exchange and joint research. Prominent collaborations initiated during the period April 2023 to March 2024 include: Bharat Electronics Ltd (BEL) Bengaluru; EM Electronics Pvt. Ltd, Bengaluru; Karnataka State Minerals Corporation limited Bengaluru; Niveus Solutions Pvt. Ltd, Udupi; Robosoft Technologies Private Limited, Udupi; TATA Consultancy Service Mumbai; SEG Automotive India Pvt. Ltd, Bengaluru; TATA Communication Limited, Mumbai; Fourth Frontier Technologies Private Limited, Bangalore; and UD Trucks India Private Limited, Bengaluru.

### Training and Placement:

The Career Development Centre facilitates on-campus recruitment and placement of students, and also arranges for their training/internship in Industry. NITK is one of the most preferred institutions in the country for many companies for campus placements and internships. It includes top PSUs like BEL, BEL-CRL, GAIL, MRPL, HPCL, BPCL and C-DOT, who visited the campus. During 2023-24, the percentage of eligible students who received job offers was 93% for UG and 81% for PG as on date of this report. The average salary was ₹ 16 LPA.

### Social outreach activities:

The institute sanctioned 40 HD CC Camera worth over ₹ 5 lakh to Karnataka Police Department. Regular ShramDaan events under Swachh Bharath Abhiyan program are being conducted on weekends by NITK SEVADAL with the active participation of faculty and staff members to improve the campus ambience and foster the feeling of oneness among them. Institute Swachh Bharath program team participated in the Swachh Surathkal City program in association with local NGOs.

### Acknowledgement and Conclusions:

The Institute is grateful to the support from the Ministry of Education, Government of India, Board of Governors and Senate members of the Institute. The faculty and non-teaching staff members are to be appreciated for their dedication to duty, and participation in various activities and initiatives. NITK is fortunate to welcome excellent students from all over the country year after year, who make the Institute their 'second home', and after graduation continue to excel in various spheres ranging from academia and industry to public service and sports. The Institute is poised to touch new heights by striving for global excellence coupled with local relevance in terms of socio-economic impact in the region in collaboration with other institutes and organizations.

Date : 19-08-2024

Place : Surathkal

**Sd/-**  
**(PROF. B. RAVI)**  
**DIRECTOR**  
**N.I.T.K., SURATHKAL**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL

P.O. SRINIVASNAGAR - 575 025

BALANCE SHEET AS AT 31-03-2024

(AMOUNT - ₹)

PARTICULARS	SCH. NO.	CURRENT YEAR	PREVIOUS YEAR
<b>SOURCE OF FUNDS :</b>			
CORPUS/CAPITAL FUND	1	91,84,15,774	88,49,02,009
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2	4,07,53,80,382	3,85,46,31,658
LOAN/ BORROWINGS	3	1,04,04,27,751	1,14,84,78,970
CURRENT LIABILITIES AND PROVISIONS	3 (A)	7,28,17,10,406	6,80,34,23,167
<b>TOTAL</b>		<b>13,31,59,34,312</b>	<b>12,69,14,35,803</b>
<b>APPLICATION OF FUNDS :</b>			
<b>FIXED ASSETS</b>			
Tangible Assets	4		
	4(A)+(D (b))	7,02,46,13,009	6,18,71,70,822
Intangible Assets	4(B)	2,72,20,315	1,81,25,988
Capital Works-In-Progress	4(C)	23,39,37,957	83,28,02,463
INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	5		
Long Term		2,21,10,66,254	3,91,88,66,999
Short Term		1,85,85,30,970	-
INVESTMENTS - OTHERS	6	1,25,46,65,793	-
CURRENT ASSETS	7	11,65,46,854	1,21,33,71,492
LOANS, ADVANCES & DEPOSITES	8	58,93,53,160	52,10,98,038
<b>TOTAL</b>		<b>13,31,59,34,312</b>	<b>12,69,14,35,803</b>
SIGNIFICANT ACCOUNTING POLICIES			
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	23		
	24		

PLACE : SURATHKAL  
DATE : 19-08-2024

Sd/- (RAVINDRANATH K.) (PROF. BHALLAMUDI RAVI)  
REGISTRAR DIRECTOR  
N.I.T.K., SURATHKAL N.I.T.K., SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL

P.O. SRINIVASNAGAR - 575 025

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2024

PARTICULARS		SC.NO.	CURRENT YEAR	PREVIOUS YEAR	(AMOUNT - ₹)
INCOME:					
ACADEMIC RECEIPTS	9		50,08,43,766	50,60,53,900	
GRANTS/SUBSIDIES	10		2,08,26,02,384	1,97,72,41,733	
INCOME FROM INVESTMENTS	11		6,51,33,034	3,71,06,251	
INTEREST EARNED	12		13,35,363	28,09,981	
OTHER INCOME	13		40,83,56,170	32,33,72,803	
OTHER RESEARCH PROJECTS	13 A		12,98,14,948	8,39,71,014	
PRIOR PERIOD INCOME	14		32,11,502	1,32,128	
TOTAL (A)			3,19,12,97,167	2,93,06,87,809	
EXPENDITURE:					
STAFF PAYMENTS & BENEFITS	15		1,70,78,06,834	1,52,77,59,285	
ACADEMIC EXPENSES	16		52,68,10,872	50,79,57,107	
ADMINISTRATIVE & GENERAL EXPENSES	17		40,43,80,712	28,65,08,030	
TRANSPORTATION EXPENSES	18		15,23,474	15,65,034	
REPAIRS & MAINTENANCE	19		12,77,43,657	14,05,49,781	
FINANCE COST	20		5,86,75,843	7,44,44,899	
DEPRECIATION	4		40,07,75,547	38,09,18,232	
OTHER EXPENSES	21		13,51,46,992	7,94,64,095	
PRIOR PERIOD EXPENSES	22		1,41,35,972	-	
TOTAL (B)			3,37,69,99,903	2,99,91,66,463	
BALANCE:					
EXCESS OF EXPENDITURE OVER INCOME	(B-A)		18,57,02,736	6,84,78,654	
SIGNIFICANT ACCOUNTING POLICIES	23				
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	24				

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL  
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2024

SCHEDULE NO. 1 - CORPUS/CAPITAL FUND		(AMOUNT - ₹)
	CURRENT YEAR	PREVIOUS YEAR
<b>CORPUS /CAPITAL FUND:</b>		
<b>A CORPUS FUND:</b>		
Balance at the Beginning of the Year		
Add : Contributions towards Corpus/Capital Fund		
Add : Grants from MoE, Govt. of India to the extent utilised for Capital Expenditure	17,05,47,964	(26,45,29,745)
Add : Assets purchased out of Earmarked Funds, where ownership vests in the Institution	71,79,283	
Add : Assets Capitalised out of Revenue Grant	5,93,24,986	1,21,79,10,407
Less : Investments transferred from General Fund to Designated/Endowment/Earmarked Funds	1,12,19,54,242	95,33,80,662
Less : Deficit Transferred from Income & Expenditure Account	1,78,35,731	6,84,78,654
<b>BALANCE AS AT THE YEAR END FOR SCHEDULE - 1</b>	<b>91,84,15,775</b>	<b>88,49,02,009</b>

PLACE: SURATHKAL  
DATE : 19-08-2024

Sd/-  
(RAVINDRANATH K.)  
REGISTRAR  
N.I.T.K., SURATHKAL

Sd/-  
(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

## SURATHKAL

P.O. SRINIVASNAGAR - 575 025

### SCHEDULE 2 - DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS AS ON 31-03-2024

PARTICULARS	CAMPUS DEVELOPMENT FUND	EQUIPMENT MAINTENANCE FUND	GOLDEN JUBILEE FUND	HOSTEL DEVELOPMENT FUND	IIIP CELL FUND	INSTITUTE DEVELOPMENT FUND	INSTITUTE SCHOLARSHIP FUND	PROFESSIONAL DEVELOPMENT FUND	R & D CONSULTANCY FUND	STAFF DEVELOPMENT & WELFARE FUND
<b>A</b>										
(a) Opening Balance of the Fund	1,45,32,249	1,39,86,596	36,82,934	1,70,91,357	59,40,992	40,63,11,864	1,17,637	1,15,96,259	7,28,14,372	54,38,31,002
(b) Additions during the year										
(i) Donations/ Grants/ Fee/ Loans & Advances	-	28,60,831	-	-	12,60,187	1,90,36,179		29,30,460	52,01,754	2,63,82,754
(c) Income from Investments	12,40,762	10,21,635	2,60,463	4,90,380	4,26,292	3,08,97,002		8,79,024	53,66,300	3,58,05,038
(d) Interest on Savings Bank A/c.	-	-	-	-	-	-	-	-	-	-
(e) Other Additions										
(i) Miscellaneous Income/Adj	-	-	-	-	-	-	-	-	-	-
(ii) Investments transferred from General Fund	-	41,38,220	-	-	7,35,756	27,25,487	-	30,44,736	71,91,532	-
<b>TOTAL A</b>	<b>1,57,73,011</b>	<b>2,20,07,282</b>	<b>39,43,397</b>	<b>1,75,81,737</b>	<b>83,63,227</b>	<b>45,89,70,532</b>	<b>1,17,637</b>	<b>1,84,50,479</b>	<b>9,05,73,958</b>	<b>60,60,18,794</b>
<b>B</b>										
Utilisation/ Expenditure towards Objectives of Funds :										
(I) Capital Expenditure										
Fixed Assets	-	-	-	37,41,098	-	-	-	3,22,554	-	7,46,070
(II) Revenue Expenditure										
Salaries, Wages & Allowances etc.,	-	-	-	-	17,700	14,620	-	1,83,139	41,665	18,72,154
Other Administrative/ Activity Expenses	-	-	-	-	-	-	-	-	-	-
Sports & Games / Swimming Pool	-	-	-	-	-	-	-	-	-	-
(III) Transfer/ Refund- Admission Fee/TDS	-	-	-	-	-	-	-	-	-	-
<b>TOTAL B</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37,41,098</b>	<b>17,700</b>	<b>14,620</b>	<b>-</b>	<b>5,05,693</b>	<b>41,665</b>	<b>26,18,224</b>
<b>Closing Balance at the year end (A-B)</b>	<b>1,57,73,011</b>	<b>2,20,07,282</b>	<b>39,43,397</b>	<b>1,38,40,639</b>	<b>83,45,527</b>	<b>45,89,55,912</b>	<b>1,17,637</b>	<b>1,79,44,786</b>	<b>9,05,32,293</b>	<b>60,34,00,570</b>
<b>Represented by</b>										
Cash & Bank Balance	-	9,56,285	-	64,985	39,128			14,20,334	56,86,549	6,93,07,985
Investments	1,88,08,871	2,09,09,451	39,48,380	1,36,77,684	82,50,448	46,69,11,452	1,28,027	1,63,67,022	8,42,02,308	52,29,18,865
Interest Accrued but not due	2,16,306	1,27,391	45,408	88,173	50,356	1,59,65,535	6,865	1,41,687	6,05,805	1,03,94,416
TDS	24,034	14,155	5,045	9,797	5,595	5,40,267	-	15,743	37,631	7,79,304
Sundry Creditors/Payables	(32,76,200)	-	(55,436)	-	-	(2,44,61,342)	(17,255)	-	-	-
Misc Advance/Receivable	-	-	-	-	-	-	-	-	-	-
Inventories(Consumables)	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>1,57,73,011</b>	<b>2,20,07,282</b>	<b>39,43,397</b>	<b>1,38,40,639</b>	<b>83,45,527</b>	<b>45,89,55,912</b>	<b>1,17,637</b>	<b>1,79,44,786</b>	<b>9,05,32,293</b>	<b>60,34,00,570</b>

PLACE: SURATHKAL  
DATE : 19-08-2024

Sd/-  
(RAVINDRANATH K.)  
REGISTRAR  
N.I.T.K., SURATHKAL

Sd/-  
(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL



SCHEDULE 2 - DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS AS ON 31-03-2024

	ENDOWMENT CHAIR FUND	STUDENT ACTIVITY COUNCIL	NITK CORPUS FUND	CCE FUND	STUDENT PRIZE FUND	NITK/KREC ENDOWMENT FUND	NITK CSAB 2024	GRAND TOTAL 2023-24	GRAND TOTAL 2022-23
<b>A</b>									
(a)	Opening Balance of the Fund	10,57,18,781	2,59,16,54,076	57,75,135	74,61,217	4,59,22,514	-	3,85,46,31,657	3,64,94,39,740
(b)	Additions during the year								
(i)	Donations/ Grants/ Fee/ Loans & Advances	3,68,87,000	5,10,49,480	51,153	7,50,000	2,42,07,566		17,06,17,364	23,51,09,951
(c)	Income from Investments	60,15,737	20,39,51,325	2,35,592	6,17,979	19,80,826		28,95,25,261	21,49,52,637
(d)	Interest on Savings Bank A/c.	3,36,266	12,54,749	15,903	-	-		16,06,918	62,68,009
(e)	Other Additions								
(i)	Miscellaneous Income/Adj	14,921	2,266	-	-	-	-	17,187	5,19,516
(ii)	Transfer	-	-	-	-	-	25,00,000	2,03,35,731	8,06,78,970
	<b>TOTAL A</b>	<b>14,89,60,050</b>	<b>2,84,79,09,630</b>	<b>60,77,763</b>	<b>88,29,196</b>	<b>7,21,10,906</b>	<b>25,00,000</b>	<b>4,33,67,34,118</b>	<b>4,18,69,68,823</b>
<b>B</b>									
Utilisation/ Expenditure towards Objectives of Funds :									
(I)	Capital Expenditure								
	Fixed Assets	9,58,409	-	-	-	6,05,571	-	63,73,702	6,83,335
(II)	Revenue Expenditure								
	Salaries, Wages & Allowances etc.,	2,75,77,817	-	1,50,000	-	2,10,57,846		2,10,57,846	
	Other Administrative/ Activity Expenses	-	20,39,51,324	49,618	-	-	26,402	2,98,83,497	37,51,752
	Sports & Games / Swimming Pool	-	-	-	-	-	37,749	20,40,38,691	23,95,62,401
(III)	Transfer/ Refund-Admission Fee/TDS	-	-	-	-	-	-	-	76,60,708
	<b>TOTAL B</b>	<b>2,85,36,226</b>	<b>20,39,51,324</b>	<b>1,99,618</b>	<b>88,29,196</b>	<b>2,16,63,417</b>	<b>64,151</b>	<b>26,13,53,736</b>	<b>33,23,37,166</b>
Closing Balance at the year end (A-B )									
	<b>85,46,499</b>	<b>12,04,23,824</b>	<b>2,64,39,58,306</b>	<b>58,78,165</b>	<b>88,29,196</b>	<b>5,04,47,489</b>	<b>24,35,849</b>	<b>4,07,53,80,382</b>	<b>3,85,46,31,658</b>
Represented by									
	Cash & Bank Balance	62,28,880	3,61,840	5,75,159	-	74,16,788	24,59,309	9,45,17,241	8,34,36,811
	Investments	11,64,51,817	2,72,90,81,501	50,93,241	1,06,39,668	4,20,66,341	-	4,06,81,90,677	3,81,73,62,446
	Interest Accrued but not due	29,80,253	7,89,66,944	1,20,541	4,38,654	6,69,328	-	11,08,90,009	10,01,69,014
	TDS	8,036	4,78,34,816	89,225	6,221	3,36,450	-	5,26,65,813	3,12,43,220
	Sundry Creditors/Payables	(93,31,968)	(21,22,86,795)	-	(22,55,347)	(41,419)	(23,460)	(25,20,18,707)	(17,75,92,335)
	Misc Advance/Receivable	-	-	-	-	-	-	9,31,364	12,500
	Inventories(Consumables)	9,31,364	-	-	-	-	-	2,03,985	
	<b>TOTAL</b>	<b>85,46,499</b>	<b>12,04,23,824</b>	<b>58,78,165</b>	<b>88,29,196</b>	<b>5,04,47,489</b>	<b>24,35,849</b>	<b>4,07,53,80,382</b>	<b>3,85,46,31,657</b>

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SCHEDULE NO. 3 - LOAN / BORROWINGS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
<b>A SECURED LOANS</b>			
1. Central Government		-	-
2. State Government (Specify)		-	-
3. Financial Institutions		-	-
a) Term Loans		-	-
i) HEFA Loan A/c.No.0010110000070 - CRF Equipment	48,20,61,607		54,76,23,936
ii) HEFA Loan A/c.No.0010110000075 - COE & CRF Building	23,11,84,426		28,08,17,033
iii) HEFA Loan A/c.No.0010110000123 - New Girls Hostel Building	22,57,23,389		26,43,50,465
iv) HEFA Loan A/c.No.0010110000160 - Lecture Hall Complex	10,14,58,329	1,04,04,27,751	5,56,87,536
b) Other Loans (Specify)		-	-
4. Banks:			
5. Other Institutions and Agencies		-	-
6. Debentures and Bonds		-	-
7. Others (Specify)		-	-
Note: Amounts due within one year	22,06,40,000		
<b>Total</b>		<b>1,04,04,27,751</b>	<b>1,14,84,78,970</b>
<b>B UNSECURED LOANS</b>			
1. Central Government		-	-
2. State Government (Specify)		-	-
3. Financial Institutions		-	-
4. Banks:		-	-
5. Other Institutions and Agencies		-	-
6. Debentures and Bonds		-	-
7. Fixed Deposits		-	-
8. Others (Specify)		-	-
<b>Total</b>		-	-
Note: Amounts due within one year			
<b>BALANCE AS AT THE YEAR END FOR SCHEDULE - 3 (A+B)</b>		<b>1,04,04,27,751</b>	<b>1,14,84,78,970</b>

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SCHEDULE NO. 3 (A) - CURRENT LIABILITIES & PROVISIONS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
<b>A CURRENT LIABILITIES:</b>			
1. Deposits from Staff & Lease		4,48,385	4,30,135
2. Deposits from Students		4,73,84,781	4,56,46,251
3. Sundry Creditors - Others			
Student Activity Council	93,31,966		
NITK/KREC Endowment Fund	41,419		
NITK Corpus Fund	21,22,86,794		
4. Deposit - Others		22,16,60,179	16,80,91,683
5. Statutory Liabilities		7,97,83,440	7,28,34,153
a) Overdue		-	-
b) Others		56,93,491	-
6. MoE Surplus Grant		-	-
7. Other Current Liabilities			
Bills Payable		27,95,90,630	16,91,56,894
Salary Deductions		3,20,69,957	2,79,77,276
Workshop/seminar Grant		33,27,937	29,99,469
8. Projects/Other Reseach Schemes (Refer Schedule 3(a) for details)		23,72,90,700	20,17,84,717
9. Sponsored Fellowship and Scholarship (Refer Schedule 3(b) for details)			
A I C T E	5,66,873		
SC/ST Scholarship Grant	6,90,267		
External Scholarship	72,49,398	85,06,538	4,03,857
<b>TOTAL (A)</b>		<b>91,57,56,039</b>	<b>68,93,24,435</b>

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SCHEDULE NO. 3 (A) - CURRENT LIABILITIES & PROVISIONS: (Continued)		(AMOUNT ₹)
	CURRENT YEAR	PREVIOUS YEAR
<b>B. PROVISIONS:</b>		
1 Gratuity	35,23,12,682	36,45,77,749
2 Superannuation Pension	5,39,97,75,305	5,16,44,71,945
3 Accumulated Leave Encashment	48,45,00,534	45,72,04,828
4 Audit Fee	2,50,000	2,50,000
5 Children Education allowance	79,00,000	71,67,500
6 Electricity charges	63,41,097	57,23,184
7 Fellowship/Stipend	3,29,72,175	2,88,41,283
8 Hostel Establishment Charges	13,37,269	13,53,623
9 Mtce of Electrical Installation	2,41,547	2,17,953
10 Mtce of Waste Water Disposal	5,25,554	9,05,704
11 Merit Cum Means Scholarship	37,04,000	48,56,000
12 Merit Scholarship	9,20,000	12,20,000
13 Pay & Allowance	6,48,36,224	5,39,16,025
14 Professional Fee	7,26,631	5,60,000
15 Telephone /Telex	91,960	1,44,962
16 Water Supply	15,98,845	16,07,628
17 Provision for Other Expenses	-	6,89,051
18 Provision for GST	20,02,418	27,29,149
19 Testing & Consultancy Payable	-	1,76,62,149
20 Professional Security Services	48,69,514	-
21 Contractual Staff/Manpower	89,100	-
22 Entertainment/Meeting Exps	2,64,177	-
23 Provision for RCM GST	6,95,330	-
<b>TOTAL (B)</b>	<b>6,36,59,54,362</b>	<b>6,11,40,98,733</b>
<b>BALANCE AS AT THE YEAR END FOR SCHEDULE - 3(A) (A + B)</b>	<b>7,28,17,10,401</b>	<b>6,80,34,23,167</b>

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### SCHEDULE 3(a): SPONSORED PROJECTS

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
1	5G Project Funding - Mohit Tahiliani	6,73,117	-	10,374	2,97,239	3,86,252
2	ADA-Generation of Design-Ashokbabu	54,128	69,44,259	1,58,419	9,04,901	62,51,905
3	ADBI-Impact Soil Health Card Scheme- Prad Jena	14,50,737	-	19,934	10,70,295	4,00,376
4	Alumni Android Based Home Automtn - Venkatesh P	55	-	-	55	-
5	Alumni-Bio-Hydrogen Storage Tech - Ravishankar	3,038	-	-	3,038	-
6	Alumni Bio Waste Recycling - Vasudeva M	37,496	1,59,317	2,339	32,998	1,66,154
7	Alumni Chito -Ollgosaccharides Medical - Keyur	1,127	-	-	1,127	-
8	Alumni-CSD Robocon N I T K-Pruthvi/KVG	2,25,832	5,25,710	3,016	6,51,544	1,03,014
9	Alumni - CWEP Project - Vasudeva M	7,70,599	-	16,265	3,89,129	3,97,735
10	Alumni DC Hoome Sikar Based Grid- Suresh Y	160	-	-	160	-
11	Alumni-Des&Assel 7seater E Van - Pruthviraj	644	-	-	644	-
12	Alumni-Develop of Dense & Porous - Rajasekaran	2,297	-	-	2,297	-
13	Alumni-E Bike for Security in NITK-Pruthviraj	145	-	-	145	-
14	Alumni-Food Waste to Biogas BCNG -Keyur/Saidu	11,854	-	-	11,854	-
15	Alumni-Food Waste to Hydrogen -Saikat Dutta	2,42,731	-	4,750	2,25,842	21,639
16	Alumni- Food Waste to Hydrogen SMR- Vasu/Ashok	4,46,265	-	5,785	4,29,350	22,700
17	Alumni Freelance Platfm Built on Blkchain-Saurv/Moh	16,72,327	2,000	24,487	13,22,408	3,76,406
18	Alumni-Green Hydrogen Seawater Ele- Saikat/Vasu	4,99,634	-	12,708	65,669	4,46,673
19	Alumni - IIT Madras - EXPLORE - K V G	7,38,184	4,50,000	26,984	2,32,404	9,82,764
20	Alumni-Immersive Leng Using AR&VR-Pru/Gang	1,712	-	-	1,712	-
21	Alumni-Implh of Organic Biogas-Orissa- Vasudev	17,707	-	-	17,707	-
22	Alumni-Impln of Organic Waste-Orissa-Vasudev	35,985	30,00,000	75,222	-	31,11,207
23	Alumni IMU Algorithm Devt-Geetha/Saum	-	7,39,778	7,321	1,19,000	6,28,099
24	Alumni-Industry Safety Traing Simn AR&VR-Pru/Gan	391	-	-	391	-
25	Alumni-Influ of Perforation Cold Formed Steel- VVK	6,78,260	-	8,548	4,42,703	2,44,105
26	Alumni-Inv&Opt Green Hyd RDF- Vas/Veer	11,07,614	-	16,900	10,99,934	24,580
27	Alumni- Maire Tech Fac Res Sustainable Devt- Vasu	86,660	-	450	80,000	7,110
28	Alumni MISRA Count Automathn- Anant /Saumy/Gee	-	4,38,795	4,025	1,08,000	3,34,820
29	Alumni Modelling & Experimtl on Catalt Biogas- Vasu	-	13,52,750	15,209	4,400	13,63,559
30	Alumni-NBO-Sumanth Govindarajan	516	-	-	516	-
31	Alumni-Novel B C for Electric Vehicle- A Perumal	953	-	-	953	-
32	Alumni-Prototype of Reliable ICN- Mohit P T	11	-	-	11	-
33	Alumni SEARCH- Pruthviraj / K V Gangadharan	2,34,912	15,87,405	6,265	15,15,053	3,13,529
34	Alumni Silent Speech Interface Dev - Krishnan	662	-	-	662	-

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
35	Alumni- SOLMELU - Rashmi U/Suprabha	-	1,00,001	2,354	-	1,02,354
36	Alumni-Support for Research on Steam Biogas-Vasu	-	8,00,000	17,943	7,75,614	42,329
37	Alumni -Trishul Jal Sanchayan - Pruthviraj U	62	-	-	62	-
38	Alumni-URJA-Solar Chrg Stn for E-Mob- Pruthviraj	895	-	-	895	-
39	Alumni-Vidh Yug E -Cycle for NITK-Pruth/KVG/Moh	81,548	-	1,372	40,715	42,205
40	An Empirical Study of Affectg Demand-Savita B	-	3,75,000	2,679	3,25,128	52,551
41	ANSYS Software Post Doctrol Fellowship	19,65,985	-	32,365	11,93,902	8,04,448
42	AquaWise A1 Enhanced Water Intell -Pruthviraj	-	5,00,000	1,125	-	5,01,125
43	Assess & Manage -Krishna River-B Manu	-	75,00,000	16,875	-	75,16,875
44	Aumni- Devt of Electric System for S L- V Perumal	630	-	-	630	-
45	Boeing Company- Vijay Desai	33,45,228	-	88,132	8,63,114	25,70,246
46	CLAS for Research Proj/feasib Studies- Nikhil	-	2,00,000	4,500	-	2,04,500
47	COSH-CSE-IPv6 - Mohit T	40,89,054	1,07,44,175	1,31,521	45,91,871	1,03,72,879
48	CPCB - Random Verfy - Azhoni	49,526	2,60,000	2,127	2,21,000	90,653
49	CPRE-Design & Demo-Poornesh Kumar	-	39,60,000	74,580	34,22,872	6,11,708
50	CPRI-RSOP-D&V of India Solar Energy-Kashyap	-	41,10,001	9,248	-	41,19,248
51	CSD Industrial Project - K V Gangadharan	4,94,414	-	13,145	54,158	4,53,401
52	CSIR-CRRI-Devt of Trip- Mithun Mohan	2,02,168	1,59,500	2,837	2,26,916	1,37,589
53	CSIR - Design & Fab of on Chip Vertical Hy-Mandeep	-	3,14,291	2,700	2,77,439	39,552
54	CSIR-Emeritus-Harikrishna Bhat	-	13,57,352	7,305	13,36,519	28,138
55	C S I R - Fellowship - Kiran Antony	11,382	-	-	-	11,382
56	C S I R -Fellowship- Revathy J M	6,681	-	-	-	6,681
57	CSR - EMBRACE - Mohit P - T	-	39,37,745	8,860	-	39,46,605
58	CSR-Enhancing Disaster Mgt A R Commn-KVG	-	5,90,001	1,328	-	5,91,328
59	CSR-HEFA-Chito Oligosaccharides -Keyur Raval	17,01,000	-	-	17,01,000	-
60	CSR- Solmelu- Mohit/Saumya	-	33,60,000	16,524	7,44,000	26,32,524
61	CSR - WiFi - Mohit P T	-	13,75,000	3,094	-	13,78,094
62	DAE:Hyers-Ulam Stabilityb -Sam Johnson	-	90,500	-	90,500	-
63	DAE-Fractional Regularization Methods-Jidesh	39,709	79,391	722	36,793	83,029
64	DBT-Dev of Artificial Intelligence- J Rajan	359	291	-	650	-
65	DBT-Social Economic-A Azhoni	1,485	-	-	1,485	-
66	Defin of Delay Sequencig Blast Design- Karra Ram	10,09,310	84,746	18,885	10,86,047	26,894
67	Design&Analysis of PV Inverter - Waseem	-	1,50,000	-	1,50,000	-
68	Design & Dev of Ultra Low Power CMOS-Sandeep	4,76,980	-	-	4,72,255	4,725
69	Design & Exeution Fisheries Project-Pruthviraj	4,89,99,808	23,016	12,54,140	60,72,190	4,42,04,774

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
70	Design Innovation Center -S.M.Kulkarni	1,98,389	-	4,280	66,363	1,36,306
71	Design Standn & Optin of Static Pallet- Vijaya Ven	-	5,20,000	10,712	1,58,722	3,71,990
72	Dev of Effluent Treatment Tech for CN- B Manu	10,683	-	-	-	10,683
73	Devt of DC-DC Converter for PV System-Vignesh	23,128	-	402	9,000	14,530
74	Devt of High Temp Wear & Erosion Rsisit - Rajasekara	37,47,012	-	87,983	22,75,379	15,59,616
75	DHI-Devt of Brushless DC- Gangadhar	4,306	-	-	4,306	-
76	Digital India In Faculty Youth Award	15,42,315	-	36,661	3,69,033	12,09,943
77	DRDO-Assessing Suitable - Srikanth Bontha	-	2,53,42,821	1,61,637	14,43,400	2,40,61,058
78	DRDO-CARS Quantum Cryptanalysis -B Rudra	-	20,10,008	13,297	39,828	19,83,477
79	Drdo-Design Analysis Foldable-Gangadhar/Jayaraj	-	6,35,956	7,304	4,68,360	1,74,900
80	DRDO-Design & Devt - Raj Mohan	78,973	-	1,688	35,265	45,396
81	DRDO-Design of Shock- Hemanth Kumar	9,89,282	-	18,779	5,78,904	4,29,157
82	DRDO-Devt of Low Phase Radar Appln-Mandeep S	2,27,012	4,34,582	8,413	5,51,211	1,18,796
83	DRDO-Modeling & Sinul- Guruprasad K R	2,44,577	-	-	2,44,577	-
84	DRDO-Partial Slip-Vadivuhezion K	1,51,915	2,49,335	4,701	1,68,201	2,37,750
85	DRDO-Prepa of Poly -Arun M Isloor	-	6,16,948	6,590	4,06,827	2,16,711
86	DRDO-Shock Response Studies - M Doddamani	14,73,565	8,67,740	40,100	3,44,338	20,37,067
87	DRDO-Sigma Delta Space Time Adaptive- Srihari	328	-	-	328	-
88	DST-Achieving Beyond Birthday B S -B R Shankar	7,50,600	-	-	7,15,600	35,000
89	DST-Centre of Excellence - Raj Mohan	-	27,71,200	-	27,71,200	-
90	DST-Combined HVOF-PBD- Ramesh M R	-	6,52,840	-	6,52,840	-
91	DST-Cp-ABE Scheme Decryptn-Alwyn	284	-	-	284	-
92	DST-CSRI-Automatic Detection & Qlfn- Jenny	168	-	-	168	-
93	DST-CSRI-Speaker Recotn - Shashidhar	9,40,482	-	-	3,61,645	5,78,837
94	DST-Des&Dev of Nanoscale Interg Sys- Sandeep	74,646	4,39,944	-	5,13,538	1,052
95	DST-Design & Test - Parthasarasthy	14,29,870	-	-	14,29,870	-
96	DST- Devl of Value -Dr.B.B.Das	1,835	-	-	1,835	-
97	DST-Devt of Convertible -Saurbh Chandraker	30,24,684	-	-	30,24,684	-
98	DST-Entrepreneurship Training Program-Alwyn	474	-	-	474	-
99	DST-Fabrication of 2-D - Selvakumar	-	7,06,840	-	7,06,840	-
100	DST Fellowship- Nidhi Regina Mendonca	-	7,52,469	4,139	6,72,845	83,763
101	DST Fellowship - Venkatramana	83,466	-	2,254	-	85,720
102	DST Fellowship- Vigneshwar Ganesh Bhat	4,81,974	4,01,760	4,168	8,80,719	7,183
103	DST-FIST-Program-HOD of App. Mech	58,385	-	1,576	-	59,961
104	DST-Indo-Portugal-Debabrata Karma	3,050	-	-	3,050	-



Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
105	DST-Inspired Fellowship-Vasundhara R	1,645	3,92,000	3,449	3,92,000	5,094
106	DST Inspire - Dr Poornesh K K	1,23,081	-	3,323	-	1,26,404
107	DST-Integrated Photocatalytic - Vidya Shetty	1,207	5,63,242	-	5,36,408	28,041
108	DST-MAHE-HUB- Sharanappa	-	14,17,393	-	-	14,17,393
109	DST-MST-Design Hybrid-Saurabh Chan	-	25,63,200	-	25,63,200	-
110	DST-SEED-Design & Devt -Hemanth Kumar	12,16,206	-	-	12,16,206	-
111	DST-Surface Engineer - Selvakumar	-	21,72,800	-	21,72,800	-
112	DST -Training Programme - Ramesh H	-	3,04,153	-	3,04,153	-
113	DST-Ultrafine Grain - A S S Balan	2,74,255	-	-	2,74,255	-
114	Enhancing the Security of SEL/SEAndroid-Radhika	-	6,76,556	3,045	-	6,79,601
115	ESTC-Coastal Ocean Tech-Dr Manu	2,667	1,00,000	-	1,02,667	-
116	Experimental & Numerical - Jeyaraj P	2,440	-	-	2,440	-
117	FIST Program-Vijay Desai Mechl	2,979	-	-	2,979	-
118	Foundation for ISHRAE -Cost of Effe- Doddamani M	88,645	-	2,393	-	91,038
119	Global Vipassanna Foundation - Pavan G S	10,75,456	-	26,781	2,58,069	8,44,168
120	Govt of Maharashtra - Computatin Site- Sreevalsa K	16,01,478	-	24,822	10,90,708	5,35,592
121	Hutti Gold Mines-Development of Value - Aruna	53,876	-	1,130	26,241	28,765
122	I B M SUR Award - Basavaraj Talwar	9,86,410	-	26,633	-	10,13,043
123	ICSSR:Study of Adaptation to Tech Innovation-P R Je	152	-	-	152	-
124	ICSSR-Assing Impact of Climate Change - Rajesh A	35,545	-	960	-	36,505
125	ICSSR-Assing the Impact of PMFBY- Rajesh A	1,427	-	-	1,427	-
126	ICSSR-Exp Efficient Solutions - Ritanjali M	3,60,562	-	9,735	-	3,70,297
127	ICSSR-JSPS(Japan) -Moving Climate - Jena	3,426	-	-	3,426	-
128	ICSSR-Make in India Initiative- Sheena , SOM	1,279	-	-	1,279	-
129	ICSSR-Socio-Economic - A Azhoni	547	-	-	547	-
130	Imprint Project - Arun Kumar Thalla	776	-	-	776	-
131	Industry Sponsor Research-Imprint	46,031	-	1,243	-	47,274
132	Info.Security Education & Aware-Phase II-Alwyn	28,66,465	-	75,190	4,90,000	24,51,655
133	INSPIRE Faculty Award-Kishore Sridharan	26,699	-	721	-	27,420
134	INTEL India Fellowship -Basavaraj Talawar	1,09,215	-	2,914	7,797	1,04,332
135	ISEF-Electrification of Indian C-Ports -Gangadharan	38,97,963	1,39,67,055	2,20,072	39,71,158	1,41,13,932
136	ISEF-Electrifying Cochin Port & Harit Sagar- K V G	-	41,45,886	37,206	41,096	41,41,996
137	ISEF-Electrifying Kar Milk Industry- K V G	-	41,18,018	27,709	34,782	41,10,945
138	ISRO-Customized Reconfigule Platform-Annappa	42,031	22,522	1,199	16,703	49,049
139	ISRO-Design &Analysis - Partha Sarathy	5,95,799	-	16,087	-	6,11,886

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
140	ISRO-Design Dev of Multi Harmonics-Sandeep	1,29,465	4,589	933	1,34,054	933
141	ISRO-Design & Devt of Multiimpet-Karthikeyan	48,184	-	1,219	36,225	13,178
142	ISRO-IIRS-Des & Dev of Autd Software Tools- Shyamla	10,46,083	-	20,690	5,01,875	5,64,898
143	ISRO-Layer Based - Srikanth Bontha	12,98,516	-	6,872	11,84,609	1,20,779
144	ISRO-Progra Photonic Microwave -Mandeep Singh	13,435	4,236	333	17,671	333
145	ISRO RACS- NITK Centre	35,465	-	878	35,465	878
146	ISRO-Realisation of A1- G V Preetham K	74,594	31,26,472	8,140	1,31,979	30,77,227
147	ISRO-Respond Dev of Automatic Land- Shyamlal	1,10,098	2,961	-	4,862	1,08,197
148	Karnataka State Bio Fuel Dev Board	3,31,134	-	8,941	-	3,40,075
149	KSMC - Devt. of A Communiton -Dr.Harsha	2,789	-	-	2,789	-
150	KSTePS:Experi Verification of Three Phase-Y Suresh	10,489	-	-	10,489	-
151	KSTEPS-Dept of Sturctural -Ravishankar K S	10,29,311	-	-	10,29,311	-
152	KSTePS-Development of Anti-Udaya Bhat K	19,38,706	-	39,203	16,36,487	3,41,422
153	KSTEPS- Devlpt of Met - M R Rehman	2,08,379	25,000	5,682	-	2,39,061
154	Ksteps-Devt of Ternary -Sathyabhama	7,50,000	-	19,871	1,68,577	6,01,294
155	KSTePS-Effective Online Framework-Nagamma Patil	130	-	-	130	-
156	KSTEPS-Optimal Controller Wide Speed-Parthiban	1,169	6,406	-	7,575	-
157	KSTEPS-Solar Based Electric Vehi Charger- B V P	15,00,000	-	37,363	13,68,315	1,69,048
158	KsTePS-VGST-Des&Dev of Parhal Proc-Wassem	3,00,000	-	7,768	1,47,413	1,60,355
159	KSTEPS-VGST-Extraction of Max Power-Karthikeyan	8,406	-	-	8,406	-
160	L&T Sponsored MTech(CTM)Project	3,75,71,278	1,89,357	9,13,803	1,01,02,171	2,85,72,267
161	Maire Tecnimont Centre for Researh-Vasudeva M	24,73,451	5,000	54,859	11,45,010	13,88,300
162	Meast & Asst of Dust NMDC Ballari-Harsh V	3,34,695	-	6,796	1,22,896	2,18,595
163	Measut & Asst of Dust Conctns - Kadaba- Harsha V	43,737	-	1,140	18,000	26,877
164	MEITY-Speech Tech in Indian Languages -Deepu V	47,371	16,01,520	-	16,01,520	47,371
165	Metallurgical Investigatin-Jagannath Nayak	70,127	-	1,893	-	72,020
166	MHRD-IMPRINT Project- Hemanth Kumar	2,984	-	-	2,984	-
167	MHRD-Virtual Lab- K.V Gangadharan	207	-	-	207	-
168	MHRD Virtual Lab Phase2 Gangadharan	36,24,918	23,731	43,829	31,66,409	5,26,069
169	Ministry of Mines -Devt of Novel - Arun Isloor	2,828	-	-	2,828	-
170	MOES-Unraveling Submarine-Ramesh H	160	-	-	160	-
171	MOWR-Impact of Climate - Mahesha A	16,187	-	-	16,187	-
172	MPSW-Design Analysis -Dr Debabrata Karmakar	11,01,117	6,21,840	-	17,22,957	-
173	MPSW-NMPT-New Resilient - Babloo Choudry	24,85,971	7,50,000	35,729	27,72,291	4,99,409
174	MRDMS Summer/Winter School -Ramesh H	2,878	-	-	2,878	-

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
175	MSME-Awariness Programme -Bijuna	-	1,40,000	315	1,40,000	315
176	MSME-Awariness Program & Workshop-Bijuna/PU	11,50,188	-	31,055	-	11,81,243
177	MSME CLCS - TU Scheme- Bijuna C M/KVG	1,38,036	-	3,519	11,705	1,29,850
178	MSME-Wristband Emer Aler for Lifeguards- Bijuna	-	7,65,734	-	5,93,659	1,72,075
179	National Jute Board -Tech Dev-Sreevalsa K	14,42,654	7,01,278	33,689	9,82,065	11,95,556
180	NRB-Theoretical Study & Design of H E - Prarthiban	8,990	-	-	8,990	-
181	NTTM-Edu-23-00024-Sreevalsa	-	2,95,15,500	-	2,95,15,500	-
182	NTTM-Pre Oriented Carbon- Palanisamy	-	15,66,100	-	15,66,100	-
183	Phase 3-Virtual Lab-K V Gangadharan	84,03,895	46,10,000	2,07,881	53,97,191	78,24,585
184	Power Electronics System Using DSP-Prajof P	7,053	-	-	7,053	-
185	Raptor Design -High Gain- V Preumal , EE	94,995	-	1,548	90,400	6,143
186	Raptor Design-Voyager- V Perumal, EE	45	-	-	45	-
187	R & D Project-Investigation to Reduction-Harsha Var	3,73,659	-	8,482	1,30,265	2,51,876
188	Scientific Study for Pit Iron Ore - Sandi Reddy	-	8,45,762	13,058	3,11,985	5,46,835
189	SERB-Training MC for Power Electric Conv-R Raushan	2,742	-	-	2,742	-
190	SERB-Additive-Manufacturing - Srikanth Bonth	39	-	-	39	-
191	SERB-Affordable Thera Sol for Rehabi- Krishnan	2,40,244	9,00,000	3,034	9,56,439	1,86,839
192	SERB-Analytical & Numerical - Gnanasekaran	473	-	-	473	-
193	SERB-A Retinex Inspired Framework - Jidesh P	3,48,021	5,00,000	8,185	7,64,571	91,635
194	SERB-Artificial Intelligence Based Mod-Shrutilipi	13,51,993	-	21,648	11,69,946	2,03,695
195	SERB-Asean-Investigation - Subhas C Katti	2,31,398	24,248	-	2,37,646	18,000
196	SERB-Asen-Design- Uday Kumar Dalimba	2,68,886	10,00,000	4,160	9,01,849	3,71,197
197	SERB-Automatic Early Detection of L C- Annappa	1,60,360	10,00,000	8,890	3,85,709	7,83,541
198	SERB-Automatic Multi Speaker- Deepu V	95,825	-	2,587	-	98,412
199	SERB-Conjunctive Use - Ramesh H	13,539	-	-	13,539	-
200	SERB-Des & Dev of Automated Kidney Cancer-Shyamal	2,277	-	-	2,277	-
201	SERB-Des&Dev of Gan HEMT Based LNA-Sandeep	55,788	5,00,000	4,997	5,54,649	6,136
202	SERB-Design Analysis - Debabrata Karmakar	857	-	-	857	-
203	SERB-Design Dev of Low Power High Effici-Dharavath	738	-	-	738	-
204	SERB-Design & Devt -Ajay Kumar Yadav	5,47,330	7,00,000	15,805	6,32,898	6,30,237
205	SERB-Design & Devt - Ramachandra Bhat	20,489	-	553	-	21,042
206	SERB - Design & Fabrication -Saurabh Chandraker	544	-	-	544	-
207	SERB-Design & Performance Analysis-Ravi Rau	-	1,50,000	-	1,50,000	-
208	SERB-Des & Impln of Multi Attribute-Chandavarkar	1,062	-	-	1,062	-
209	SERB-Dev of Design Essentls for GA203-Nikhil	4,81,780	-	7,588	4,81,780	7,588

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
210	SERB-Dev of Highly Condu Ultrathin VS2-Sushil	1,46,975	8,267	2,124	1,55,242	2,124
211	SERB-Dev of Innovative - Palanisamy	1,39,032	-	894	1,39,032	894
212	SERB-Dev of Integrated Health Monitg-W Ahmad	4,65,124	3,35,000	-	8,00,124	-
213	SERB-Dev of Microbial - Devatha C P	5,39,036	6,00,000	9,327	8,11,169	3,37,194
214	SERB- Dev of Tea Plant Disease - Jaidhar	-	9,88,000	6,467	89,818	9,04,649
215	SERB-Devt & Demonstration - Hari Prasad Dasari	3,137	-	-	3,137	-
216	SERB-Devt of Biodegrade-Jeyaraj	4,88,428	5,00,000	11,016	7,29,875	2,69,569
217	SERB-Devt of Cost - Ajay Kumar Yadav	9,02,356	-	24,364	-	9,26,720
218	SERB-Devt of Counter- Babloo Choudhary	61,783	251	243	57,840	4,437
219	SERB-Devt of Electro - Hari Prasad Dasari	1,83,956	-	1,367	1,81,328	3,995
220	SERB-DS & DV of Low Cost Power- Prajof P	1,268	-	-	1,268	-
221	SERB-DS&Imp of 3 Phase PWM -Arun D	1,252	-	-	1,252	-
222	SERB-Dynamic of LOW-Shajahan	-	-	-	-	-
223	SERB-Effect of Frictional - Vadivuchezhian	228	2,50,000	-	2,50,228	-
224	SERB-Effect of High - Debashree Chakraborty	3,56,057	1,00,000	-	4,56,057	-
225	SERB-Enhance Lubricant - P S Suvin	-	12,00,666	24,022	77,211	11,47,477
226	SERB-Evaluation of Macro-Parthasarathy P	5,59,218	-	-	5,59,218	-
227	SERB-Expert Technique- Shivananda Nayak	533	-	-	533	-
228	SERB Fellowship- Vipin Joseph	184	-	-	184	-
229	SERB-Fractional Order Non Local-Bini	-	1,92,652	867	-	1,93,519
230	SERB - FSER - Matrics - Sam Johnson	-	2,20,000	985	2,217	2,18,768
231	SERB-Grid Interfacing of Solar Power-H Nagendrappa	718	-	-	718	-
232	SERB-Hands on Traing on DSP TMS 320F M-Dharavath	2,279	-	-	2,279	-
233	SERB-Highend Workshop - Alwyn R Pais	803	-	-	803	-
234	SERB-High End Workshop Network-Bhawana R	3,979	-	-	3,979	-
235	SERB-Impounding of River - Ramesh H & Nasar	13,24,601	-	35,764	-	13,60,365
236	SERB-Improvement in the Prop - Sudhakar C J	1,60,589	-	1,628	1,50,413	11,804
237	SERB-Influence of Binary - B B Das	1,057	-	-	1,057	-
238	SERB-Interaction of Various Envt -Vinoth	26,574	3,50,000	-	3,76,574	-
239	SERB-Investigations on Origin - Poornesh K	213	-	-	213	-
240	SERB - Invest Induced - Anish S	2,66,929	-	6,028	2,66,929	6,028
241	SERB-Invest of Primordial-Sreenath V	1,24,585	1,01,613	4,325	1,02,596	1,27,927
242	SERB-Invest on Function -Jagadeesh Babu	-	17,66,459	3,975	-	17,70,434
243	SERB-Invest on Inertial -Ranjith M	18,04,050	50,000	34,891	15,56,671	3,32,270
244	SERB-Ionic & Mech -Poornesh K K	24,55,513	9,00,000	82,855	7,90,396	26,47,972

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
245	SERB-Karyashala Appln of Artificial-Sushil	-	5,00,000	1,125	-	5,01,125
246	SERB-Laboratory Scale Demon of Kite-Karthikeyan	9,54,738	-	16,733	8,26,900	1,44,571
247	SERB-Laser Directed Energy - Srikanth B	-	10,75,466	24,215	4,49,261	6,50,420
248	SERB-Logical Corr for Batteryess Internet- Biswajit	3,91,383	4,10,000	10,574	5,54,094	2,57,863
249	SERB- Metamaterial Based Novel- Krishnamoorthy	11,534	-	-	11,534	-
250	SERB-Multi-Functional Metasurface-Krishnamty	-	12,89,644	5,387	1,14,002	11,81,029
251	SERB-Multi Scale Model -Debashree Chak	85,096	5,15,000	5,993	5,18,696	87,393
252	SERB- Newdelhi - Project	1,65,574	-	3,570	50,000	1,19,144
253	SERB-Nonlockal &Non Convex Fractnl -Jedesh	2,01,440	-	1,503	1,66,111	36,832
254	SERB-Novel Catalytic - Saikat Dutta	4,82,183	6,00,000	18,035	7,75,792	3,24,426
255	SERB-Olefin Linked - Lakshmi Vellank	59,412	6,00,000	9,059	6,59,412	9,059
256	SERB-Organinc Rankine - Veersetty Gumpta	23,08,306	-	62,324	-	23,70,630
257	SERB-Particle Migration- Arun Mahalingam	20,88,313	-	55,555	3,68,546	17,75,322
258	SERB-Perforce Analysis & Enhancnt- Prabhu Krish	881	-	-	881	-
259	SERB-Performance Evaluation - Ramesh M R	16,11,889	-	40,650	3,01,245	13,51,294
260	SERB-Photonic Porous Silicon Nano- Mandeep Singh	1,57,675	4,00,000	7,690	4,97,000	68,365
261	SERB-Prawn Shell - Saumen Mandal	1,18,886	6,50,000	2,527	5,71,852	1,99,561
262	SERB-Predictive Asst of Posteral Risk-Bijay Mihir	1,65,082	3,00,000	5,924	4,07,386	63,620
263	SERB-RCMLI for Solar PV System-Ravi Raushan	1,024	-	-	1,024	-
264	SERB-Restricted Proper Edge Color of Graphs -Manu B	1,89,739	-	5,123	-	1,94,862
265	SERB-Safety Data Analytics & Core- Kunar	-	5,00,000	1,125	4,91,994	9,131
266	SERB-Selective Extraction - Regupathi	3,53,718	-	-	3,53,718	-
267	SERB-Semi Active -Hemanth Kumar	7,31,446	-	15,965	3,79,816	3,67,595
268	SERB-Smart Electric Vehicle - Dastogiri	1,92,616	8,30,000	8,969	6,95,702	3,35,883
269	SERB-SOCCER Sophisticated Optizd Dc -Kalpana	16,23,414	-	22,096	10,63,414	5,82,096
270	SERB-Solar Power Forecasting - Tukaram M	-	1,50,000	-	1,50,000	-
271	SERB-Study on Non Linear Equations- Santho.Jjidesh	1,20,000	5,50,000	1,694	5,08,619	1,63,075
272	SERB-Synthesis of Azulence-Vijayendra S	2,46,721	6,00,000	15,010	5,68,611	2,93,120
273	SERB-Synthesis of Carbo - Beenesh P B	3,84,890	9,00,000	21,900	6,60,632	6,46,158
274	SERB-Synthesis of Intel - Ranjeet K Sahu	-	15,40,204	30,031	2,92,770	12,77,465
275	SERB- TARE - MAHE-Sam Johnson	-	3,34,998	3,325	3,35,000	3,323
276	SERB-TARE-Nitte- Narayan Prabhu	5,471	1,86,288	-	1,91,759	-
277	SERB-TARE-Nitte- Regupathi	1,75,202	-	4,730	-	1,79,932
278	SERB - TARE - Nitte - Shrikantha Rao	3,056	-	-	3,056	-
279	SERB-Vritika--Des & Dev of Power Factor-Vignesh	9	-	-	9	-

Sl. No.	Particulars	Opening Balance	Receipts	Interest	Expenditure	Closing Balance
280	Sparc-Adaption of Climate Smrt Agri- Pradyot	2,544	-	-	2,544	-
281	Sparc-Additive Manu - M Doddamani	3,078	-	-	3,078	-
282	Sparc-Environmental-Dr Pritviraj	594	-	-	594	-
283	SPARC-Evaluating Potential - Ritanjali	-	25,00,000	-	25,00,000	-
284	Sparc-Exploring Appns of Radiomies - Sumam	2,069	-	-	2,069	-
285	SPARC-Laser Additive -Srikanth Bontha	-	25,00,000	-	25,00,000	-
286	SPARC Project - Hemanth Kumar	165	-	-	165	-
287	Spare -Coastal-Dr Ramesh H	1,727	-	-	1,727	-
288	Training Programme- MRPL-Rashmi Uchil	1,02,130	-	2,758	-	1,04,888
289	U K Project- Collaborative Research - B B Das	11,05,569	11,945	3,685	11,21,199	-
290	Utilization of Fine Material of Mines Waste-Harsha	57,404	-	-	57,404	-
291	VGST-Dev. & Characterization -Ch S N Murthy	12,81,520	-	32,188	10,72,620	2,41,088
292	V GST-Develop of Low Cost-Arun M Isloor	21,42,975	-	57,777	37,069	21,63,683
293	VGST-KSTEPA-Desaltn of Sea Water - Debabrata Kar	21	-	-	21	-
294	VGST-Underground Mine Real Time Airquality -S K R	11,77,323	-	19,938	11,42,835	54,426
295	Visvesvarya PhD Scheme for EC & IT	767	-	-	767	-
<b>TOTAL</b>		<b>20,12,17,844</b>	<b>19,59,02,479</b>	<b>53,93,911</b>	<b>16,52,23,534</b>	<b>23,72,90,700</b>

### SCHEDULE 3(b): SPONSORED FELLOWSHIP AND SCHOLERSHIP

Sl.No.	NAME OF SPONSOR	OPENING BALANCE AS ON 01.04.2023		TRANSACTIONS DURING THE YEAR		CLOSING BALANCE AS ON 31.03.2024	
		3	4	5	6	7	8
		CR.	DR.	CR.	DR.	CR	DR.
1	2						
1	AICTE GRANT QIP REGULAR	4,27,312	-	-	-	4,27,312	-
2	AICTE GRANT QIP PLAN (POLY)	1,39,561	-	-	-	1,39,561	-
3	SC/ST Scholarship Grant - MSJE	4,03,857	-	47,62,240	44,75,830	6,90,267	-
4	Other External Scholarship	79,27,276	-	58,33,522	65,11,400	72,49,398	-
	<b>TOTAL</b>	<b>88,98,006</b>	<b>-</b>	<b>1,05,95,762</b>	<b>1,09,87,230</b>	<b>85,06,538</b>	<b>-</b>



### SCHEDULE 3(C) UNUTILIZED GRANTS FROM GOVERNMENT OF INDIA

(₹ in lakhs)

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
<b>A. Capital Grants:</b>		
Balance B/F	-	2,631.72
Less: Refunds (unspent grant reversed by TSA) 2022-23	-	2,631.72
Balance	-	-
Add: Receipts during the year 2,005.00		-
Less: Grant Surrender to PAO 299.52		
Less: Refunds (unspent grant reversed by TSA) 2023-24 0.00	1,705.48	4,278.71
<b>Total (a)</b>	<b>1,705.48</b>	<b>4,278.71</b>
Less: Utilized for Revenue Expenditure -		
Less: Utilized for Capital Expenditure 1,705.48		
Less: Excess Expenditure met from IRG -	1,705.48	4,278.71
<b>Total (b)</b>	<b>1,705.48</b>	<b>4,278.71</b>
<b>Unutilized carried forward grant under TSA (a-b) = (A)</b>	-	-
<b>B. i) Revenue Grants: OH 31</b>		
Balance B/F	-	29.93
Less: Refunds (unspent grant reversed by TSA) 2022-23	-	29.93
Balance	-	-
Add: Receipts during the year 10,367.03		
Less: Refunds (unspent grant reversed by TSA) 2023-24 -	10,367.03	9,730.21
<b>Total (c)</b>	<b>10,367.03</b>	<b>9,730.21</b>
Less: Utilized for Non-Salary Expenditure 13,427.45		
Less: Excess Expenditure met from IRG 3,060.42	10,367.03	9,730.21
<b>Total (d)</b>	<b>10,367.03</b>	<b>9,730.21</b>
<b>Unutilized carried forward grant under TSA (c-d) = (Bi)</b>	-	-
<b>B. ii) Revenue Grants: OH 36</b>		
Balance B/F	-	8.80
Less: Refunds (unspent grant reversed by TSA) 2022-23	-	8.80
Balance	-	-
Add: Receipts during the year 10,459.00		
Less: Refunds (unspent grant reversed by TSA) 2023-24 -	10,459.00	10,042.20
<b>Total (c)</b>	<b>10,459.00</b>	<b>10,042.20</b>
Less: Utilized for Salary Expenditure 11,172.39		
Less: Excess Expenditure met from IRG 713.39	10,459.00	10,042.20
<b>Total (d)</b>	<b>10,459.00</b>	<b>10,042.20</b>
<b>Unutilized carried forward grant under TSA (c-d) = (Bii)</b>	-	-
<b>Unutilized carried forward grant under TSA Grand Total (A+Bi+Bii)</b>	-	-

#### IRG STATEMENT 2023-24

(₹ in lakhs)

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
Balance B/F IRG 2022-23	7,233.66	3,803.22
TOTAL INTERNAL RECEIPTS	9,788.80	8,185.17
<b>Total</b>	<b>17,022.46</b>	<b>11,988.39</b>
LESS: HEFA PRINCIPAL & OTHER EXPENDITURE 3,374.03	7,147.83	4,754.73
LESS: EXCESS EXPENDITURE OF OH 31 & 36 3,773.81		
<b>SURPLUS UNDER CAPITAL FUND/CORPUS</b>	<b>9,874.63</b>	<b>7,233.66</b>

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL

P.O. SRINIVASNAGAR - 575 025

**FIXED ASSETS & DEPRECIATION AS ON 31-03-2024**

(AMOUNT - ₹)

**SCHEDULE NO. 4**

PARTICULARS	GROSS BLOCK				RATE OF DEP.(%)	DEPRECIATION				
	BALANCE AS ON 01.04.2023 1	ADDITIONS DURING THE YEAR 2	DELETIONS DURING THE YEAR 3	TOTAL 4 = (1+2-3)		DEPRECIATION UP TO 31.03.23 6	DEPRECIATION FOR THE YEAR 7	PRIOR PERIOD DEPRECIATION 8	TOTAL DEPRECIATION 9 = (6+7+8)	BALANCE AS ON 31.03.2024 10 = (4-9)
(A) FIXED ASSETS										
(i) Tangible Asset										
Land : Freehold *	90,49,981	-	-	90,49,981	-	-	-	-	-	90,49,981
Buildings : Freehold.	2,99,93,41,943	3,33,86,712	-	3,03,27,28,655	2.00	75,56,96,589	6,06,54,573	-	81,63,51,162	2,21,63,77,493
Buildings : Freehold (Residential)	80,39,49,293	28,57,807	-	80,68,07,100	2.00	8,28,75,709	1,61,36,142	-	9,90,11,851	70,77,95,249
Buildings : Freehold (Hostel)	1,38,09,52,831	96,92,75,238	-	2,35,02,28,069	2.00	47,85,83,245	4,70,04,561	-	52,55,87,806	1,82,46,40,263
Plant & Equipments	29,65,94,701	-	-	29,65,94,701	5.00	19,50,75,570	1,48,29,735	-	20,99,05,305	8,66,89,396
Vehicle	72,90,244	31,64,500	-	1,04,54,744	10.00	64,82,157	3,01,088	-	67,83,245	36,71,499
Furniture & Fixtures	28,79,33,057	1,51,08,168	-	30,30,41,225	7.50	14,67,68,468	2,22,15,838	-	16,89,84,306	13,40,56,919
Office Equipments	3,37,88,037	16,91,207	-	3,54,79,244	7.50	1,80,82,658	24,50,152	-	2,05,32,810	1,49,46,434
Computer & Peripherals	51,84,14,340	9,84,06,573	99,401	61,67,21,512	20.00	37,65,16,931	6,37,27,594	-	44,02,44,525	17,64,76,987
Electrical Installation	9,72,79,569	1,83,53,527	-	11,56,33,096	5.00	2,45,83,509	53,21,368	-	2,99,04,877	8,57,28,219
Library Books	2,45,42,678	5,43,576	-	2,50,86,254	10.00	2,27,08,709	4,29,307	-	2,31,38,016	19,48,238
Audio Visual Equipments	2,08,28,186	57,46,363	-	2,65,74,549	7.50	80,25,364	17,58,481	-	97,83,845	1,67,90,704
Tube Wells and Water Supply	13,18,166	2,87,249	-	16,05,415	2.00	2,37,757	30,151	-	2,67,908	13,37,507
Lab & Scientific Equipments	1,83,69,61,013	7,24,50,212	-	1,90,94,11,225	8.00	33,12,83,669	14,88,70,554	-	48,01,54,223	1,42,92,57,002
TOTAL 4 (A)	8,31,82,44,039	1,22,12,71,132	99,401	9,53,94,15,770		2,44,69,20,335	38,37,29,544	-	2,83,06,49,879	6,70,87,65,891

\* Proportionate book value of land acquired by NHAI is pending to be recovered from GoK. The value shown above is as per the original cost estimated at the time of incorporation of the Institute.

PARTICULARS	GROSS BLOCK				RATE OF DEP.(%)	DEPRECIATION			BALANCE AS ON 31.03.2024 9 = (4-8)
	BALANCE AS ON 01.04.2023	ADDITIONS DURING THE YEAR	DELETIONS DURING THE YEAR	TOTAL		DEPRECIATION UP TO 31.03.23	DEPRECIATION FOR THE YEAR	TOTAL DEPRECIATION	
	1	2	3	4=(1+2-3)	5	6	7	8=(6+7)	
<b>B. FIXED ASSETS</b>									
<b>Intangible Asset</b>									
Software	6,72,24,564	90,09,284	-	7,62,33,848	40	6,23,28,064	54,42,624	-	84,63,160
E-Books	5,09,72,250	1,71,31,046	-	6,81,03,296	40	3,77,42,762	1,16,03,379	-	1,87,57,155
<b>TOTAL 4 (B)</b>	<b>11,81,96,814</b>	<b>2,61,40,330</b>	<b>-</b>	<b>14,43,37,144</b>		<b>10,00,70,826</b>	<b>1,70,46,003</b>	<b>-</b>	<b>2,72,20,315</b>
<b>TOTAL (A) + (B)</b>	<b>8,43,64,40,853</b>	<b>1,24,74,11,462</b>	<b>99,401</b>	<b>9,68,37,52,914</b>		<b>2,54,69,91,161</b>	<b>40,07,75,547</b>	<b>-</b>	<b>6,73,59,86,206</b>
Figures for 2022-23	6,53,70,74,086	1,89,95,50,523	1,83,756	8,43,64,40,853		2,16,62,05,057	38,09,18,232	1,32,128	5,88,94,49,692

### C. CAPITAL WORK IN PROGRES AS ON 31.03.2024

PARTICULARS	OP. BALANCE	ADD / TRANS.	TOTAL	TR. TO REVENUE	TR. TO ASSET	CL. BALANCE
WIP - Const.of New Boys Hostel	51,82,86,599.00	3,93,03,890	55,75,90,489	-	55,75,90,489	-
WIP - New Boys Hostel - Block No 11	29,73,02,584.00	7,26,50,387	36,99,52,971	-	36,99,52,971	-
WIP-Extn of Electrical Line 33KV Residential Area	-	88,61,865	88,61,865	-	-	88,61,865
WIP-Design Installation of 13 Capty Lift-IT	-	16,63,800	16,63,800	-	16,63,800	-
WIP- Installation of 6 Passenger Lift	-	12,15,400	12,15,400	-	12,15,400	-
Constn of Addl Bldg for Library	-	2,16,05,736	2,16,05,736	-	2,16,05,736	-
WIP-Power Supply Connection to New Faculty Apart	-	23,05,241	23,05,241	-	23,05,241	-
WIP-Reconstruction of Compound Wall	-	25,78,894	25,78,894	-	25,78,894	-
WIP- Constn of 4th Floor Over Civil Engg Bldg	-	50,03,570	50,03,570	-	50,03,570	-
Constn of New Sports Complex	-	1,62,136	1,62,136	-	1,62,136	-
WIP- Constn of Bldg Concrete Testing & Envrn Lab	-	49,014	49,014	-	49,014	-
WIP- Constn of Swimming Pool	-	2,26,44,285	2,26,44,285	-	-	2,26,44,285
WIP-Constn of Foot Over Bridge Across NH 66-NMPRC	-	3,19,37,606	3,19,37,606	-	-	3,19,37,606
<b>Expenses from HEFA Loan</b>						
WIP - New Girls Hostel - Block No 6	-	4,17,31,778	4,17,31,778	-	4,17,31,778	-
Constn of Lecture Hall Complex D-160	1,72,13,280	15,32,80,923	17,04,94,203	-	-	17,04,94,203
<b>TOTAL 4 (C)</b>	<b>83,28,02,463</b>	<b>40,49,94,525</b>	<b>1,23,77,96,988</b>	<b>-</b>	<b>1,00,38,59,029</b>	<b>23,39,37,959</b>
Figures for 2022-23	1,16,14,88,687	51,25,26,296	1,67,40,14,983	-	84,12,12,520	83,28,02,463

(D (a)) FIXED ASSETS OF VARIOUS PROJECTS & FUNDS AS ON 31-03-2024

	OP. BALANCE	ADDITIONS	TRANSFER	CL. BALANCE
<b>OTHER RESEARCH SCHEMES</b>				
Computer & Peripherals	4,93,08,102	74,12,522	-	5,67,20,624
Plant & Equipment	3,62,512	-	-	3,62,512
Electrical Installations	79,36,031	6,94,214	-	86,30,245
Furniture & Fixtures	13,82,254	1,72,978	-	15,55,232
Office Equipments	15,86,006	19,824	-	16,05,830
Books	7,50,113	1,22,582	-	8,72,695
Software	2,70,02,961	28,09,873	-	2,98,12,834
Audio Visual Equipments	14,20,000	11,12,162	-	25,32,162
Tube Wells and Water Supply	49,500	-	-	49,500
Lab & Scientific Equipments	16,17,58,408	1,98,25,845	-	18,15,84,253
<b>TOTAL (D (a))</b>	<b>25,15,55,887</b>	<b>3,21,70,000</b>	<b>-</b>	<b>28,37,25,887</b>
<b>Figures for 2022-23</b>	<b>21,69,57,387</b>	<b>3,45,98,500</b>	<b>-</b>	<b>25,15,55,887</b>

(D (b)) FIXED ASSETS OF TEQIP AS ON 31-03-2024

PARTICULARS	GROSS BLOCK				RATE OF DEP.(%)	DEPRECIATION			BALANCE AS ON 31.03.2024
	BALANCE AS ON 01.04.2023	ADDITIONS DURING THE YEAR	DELETIONS DURING THE YEAR	TOTAL		DEPRECIATION UP TO 31.03.22	DEPRECIATION FOR THE YEAR	TOTAL DEPRECIATION	
	1	2	3	4 = (1+2-3)	5	6	7	8 = (6+7)	9 = (4-8)
TEQIP I Assets	18,42,37,765	-	-	18,42,37,765	-	-	-	-	18,42,37,765
TEQIP II Assets	9,70,19,243	-	-	9,70,19,243	-	-	-	-	9,70,19,243
TEQIP III Assets	3,45,90,110	-	-	3,45,90,110	-	-	-	-	3,45,90,110
TOTAL (D (b))	31,58,47,118	-	-	31,58,47,118	-	-	-	-	31,58,47,118
GRAND TOTAL (A) + (B) + (D (b))									
7,05,18,33,324									
Figures for 2022-23									
6,20,52,96,810									

PLACE: SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

SCHEDULE NO. 5 - INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
1 In Central Government Securities - Long Term		20,00,00,000	-
2 In State Government Securities - Long Term		35,00,00,000	-
3 Other Approved Securities-Long Term		1,61,96,30,000	-
4 Shares		-	-
5 Debentures and Bonds		-	-
6 Term Deposits with Banks		-	-
a Long Term Investments:		-	-
		4,14,36,254	
b Short Term Investments:		2,21,10,66,254	
Main Account Funds:			
Balance at the beginning of the year		1,07,43,38,649	
Add: Transferred from Current Assets /General Fund		1,78,35,731	
Add: Additions during the year		1,09,21,74,380	
Less: Transferred/Matured.		64,83,52,833	
Student Activity Council		1,74,05,27,213	
NITK Corpus Fund		53,68,76,492	
KREC/NITK Endowment Investments		1,20,36,50,721	1,07,43,38,649
T&C - Performance Security FD with Exe. Engg. Minor Irrgn		11,64,51,816	8,40,16,294
Student Deposit		2,72,90,81,501	2,71,90,96,302
CCE Fund		4,20,66,341	3,54,32,450
Less: Accrued Income		7,01,565	6,76,246
Less: Securities disclosed separately under SI No.1 to 3 above		7,04,981	6,59,294
Less : Long term investment disclosed sl.no.6a above		50,93,241	46,47,765
BALANCE AS AT THE YEAR END FOR SCHEDULE -5		4,09,77,50,166	-
		2,81,52,942	
		4,06,95,97,224	
		2,16,96,30,000	
		1,89,99,67,224	
		4,14,36,254	
		1,85,85,30,970	
		4,06,95,97,224	3,91,88,67,000

PLACE: SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

SCHEDULE NO. 6 - INVESTMENTS - OTHERS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
1	In Central Government Securities	-	-
2	In State Government Securities	-	-
3	Other Approved Securities	-	-
4	Shares	-	-
5	Debentures and Bonds	-	-
6	Other :	-	-
	In Term Deposit Accounts:		
	Opening Balance transferred from Current Assets	98,37,99,925	
	Add: Additions during the year	2,58,30,12,483	
		3,56,68,12,408	
	Less: Transferred/Matured	2,25,57,66,506	
		1,31,10,45,903	
	Less: Accrued Income disclosed separately in Sl. No. 6(b) of Schedule No.8 -		
	Loans, Advances & Deposits	3,85,44,379	
		1,27,25,01,524	
	Less: Transferred to Earmarked / Endowment Funds	1,78,35,731	1,25,46,65,793
	<b>BALANCE AS AT THE YEAR END FOR SCHEDULE - 6</b>	<b>1,25,46,65,793</b>	<b>-</b>

PLACE: SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

SCHEDULE NO. 7 - CURRENT ASSETS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
1 Stock		8,22,520	-
2 Sundry Debtors		-	-
3 Cash and Bank Balances			
a) Cash in Hand		31,141	11,088
b) With Scheduled Banks			
In Reserve Bank of India TSA-10681301001		-	-
In Current Accounts			
State Bank of India CA No.10175365060	8,73,02,012		14,14,34,612
State Bank of India CA No.37772503911	61,06,084		(67,11,735)
SBI - NITK/KREC Endowment Fund No.37481178720	74,16,788	10,08,24,884	1,03,56,733
In Term Deposit Accounts			
Balance at the beginning of the year	98,37,99,925		98,37,99,925
Less: Transferred to Schedule No.6 - Investments - Others	98,37,99,925	-	
In Savings Bank Accounts			
Canara Bank - SB A/c No.8517101000001	8,06,836		18,60,168
Canara Bank - HEFA Principle Payment A/c.No.8517201000070	71,709		72,297
Canara Bank - HEFA Interest Payment A/c.No.8517201000071	4,85,270		4,85,860
SBI SB Account No.10175367556	38,48,978		4,97,04,955
SBI CA 42580009532 CSAB Account	24,59,309		-
SBI - CCE Fund No.10175366686	5,75,159		10,61,999
SBI - NITK Corpus Fund No.10175367454	3,61,840		66,66,743
SBI - Student Activity Council No.30118900494	62,28,880	1,48,37,981	2,46,28,182
c) With non-Scheduled Banks		-	-
4 Stamps		30,328	665
<b>BALANCE AS AT THE YEAR - END FOR SCHEDULE - 7</b>		<b>11,65,46,854</b>	<b>1,21,33,71,492</b>

PLACE: SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL



SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS		(AMOUNT ₹)	
		CURRENT YEAR	PREVIOUS YEAR
1	Advance to Employees		
	a) Salary	-	-
	b) Festival	-	-
	c) Medical	-	-
	d) Other	-	-
2	Long Term Advances to Employees (Interest Bearing)		
	a) Vehicle Loan	-	-
	b) Home Loan	-	-
	c) Other	-	-
3	Advances and Other Amounts Recoverable in Cash or in Kind or for Value to be Received		
	a) On Capital Accounts	-	-
	b) To Suppliers	6,27,057	4,00,043
	To CPWD	9,14,76,346	21,38,83,166
	To NMPRC	-	3,19,37,606
	To Staff	-	25,000
	To Others	7,59,259	20,05,619
	c) Other		
	Rent Receivable	5,98,630	2,45,653
	Interest Receivable from MESCOM	4,71,505	2,68,194
	L D Charges Receivable	-	77,375
	Student Fee Receivable	45,14,612	40,26,510
	Water/Electricity Charges Receivable	3,11,177	2,49,914
	NITK Corpus Fund - Interest Receivable	20,39,51,324	15,45,68,353
	Receivable From S A C - Incident	-	3,18,626
	Testing & Consultancy - Receivable	49,95,691	1,37,85,380
	TDS Receivable	3,05,86,414	1,02,308
	TCS Receivable	1,02,308	38,460
	GST - TDS	1,89,594	9,591
	Pre-Deposit-Service Tax-Immovable Property	9,591	2,20,209
	Pre-Deposit-Service Tax Penalty-T&C	2,20,209	-
	Internatl Conf on Min Greener Future - Receivable	2,90,000	-
	Receivable From Mrityunjay Doddamani	150	-
	Loans, Advance/Receivable of Project/ Funds		
	NITK Corpus Fund - TDS	4,78,34,816	2,70,93,825
	CCE - TDS	89,225	65,370
	NITK/KREC Endowment Fund - TDS	3,36,450	1,38,361
	DASA - TDS	-	17,01,029
	SAC - TDS	29,59,494	22,44,635
	SAC - Misc Advance	9,31,364	12,500
		39,12,55,216	

(AMOUNT ₹)		CURRENT YEAR	PREVIOUS YEAR
4	Prepaid Expenses	2,02,223	1,26,413
	a) Insurance		
	b) Other Expenses	15,532	8,434
	Prepaid Road Tax	-	2,12,40,000
	Prepaid Maintenance of Computers	2,96,800	-
	Prepaid Software Expenses	32,00,939	32,00,939
	Prepaid Operating Cost - CRF	3,24,10,104	2,71,23,546
	Prepaid Operating Cost - Library		
5	Deposits	77,466	77,466
	a) Telephone	-	-
	b) Lease Rent	88,37,760	70,41,939
	c) Electricity	1,87,120	1,87,120
	d) Other - Gas & Oil suppliers		
6	Income Accrued	11,09,00,926	-
	a) On Investments from Earmarked/ Endowment Funds	3,85,44,379	-
	b) On Investment - Others	-	-
	c) On Loans & Advances		
	d) Other	14,94,45,305	-
	Leave Salary & Pension Receivable	17,71,617	17,13,959
	NERIST-Narendranath-Receivable	12,650	-
7	Other - Current Assets, Recivables from MoE/Sponsored Projects		
	a) Debit Balance in Sponsored Projects		-
	b) Debit Balance in Sponsored Fellowships & Scholarships		-
	c) Grants Receivable		
	DST Interest Receivable	27,446	27,446
	SERB Grant Receivable	1,90,199	1,90,199
	Project Grant Receivable	14,10,838	50,41,850
	HEFA CSR Contribution A/c	-	17,01,000
	U K Project- B B Das - Receivable	11,945	-
	d) Other Receivables from MoE	16,40,428	-
8	Claims Receivable	-	-
<b>BALANCE AS AT THE YEAR - END FOR SCHEDULE - 8</b>		<b>58,93,53,160</b>	<b>52,10,98,038</b>

PLACE: SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

P.O. SRINIVASNAGAR - 575 025

## SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2024

		(AMOUNT ₹)	
SCHEDULE NO. 9 - ACADEMIC RECEIPTS		CURRENT YEAR	PREVIOUS YEAR
<b>A</b>	<b><u>Academic</u></b>		
	Admission Fee-College & Hostel	26,03,732	26,67,930
	Library Fee	2,15,54,922	1,80,66,200
	M.B.A .Tuition Fee	2,25,00,000	1,05,50,000
	M.C.A .Tuition Fee	2,02,25,000	1,44,40,000
	M.Sc.Tuition Fee	52,67,500	41,85,000
	Phd Thesis Processing/Evaluation Fee	22,55,372	32,19,240
	Phd. Tuition Fee.	1,20,72,500	1,28,85,000
	M.Tech Tuition Fee	11,23,42,298	11,33,47,500
	U.G Tuition Fee	24,61,46,340	27,45,69,882
	<b>TOTAL (A)</b>	<b>44,49,67,664</b>	<b>45,39,30,752</b>
<b>B</b>	<b><u>Examinations</u></b>	-	-
	<b>TOTAL (B)</b>	-	-
<b>C</b>	<b><u>Other Fees</u></b>		
	Central Computing Facilities Fee	2,26,39,935	2,14,23,384
	Identity Card	7,900	8,400
	Campus Amenities	78,26,150	72,82,110
	Career Development Fee	96,47,151	87,92,140
	Certificate Fee	1,75,450	2,21,675
	Convocation Fee	55,39,280	50,20,720
	Health Care Facility	78,26,040	72,88,010
	Late Fee, Fine & Processing Fee	10,29,822	10,14,559
	<b>TOTAL (C )</b>	<b>5,46,91,728</b>	<b>5,10,50,998</b>
<b>D</b>	<b><u>Sale of Publications</u></b>		
	Application Form/Prospectus	7,97,374	10,72,150
	<b>TOTAL (D)</b>	<b>7,97,374</b>	<b>10,72,150</b>
<b>E</b>	<b><u>Other Academic Receipts</u></b>	3,87,000	-
	<b>TOTAL (E)</b>	<b>3,87,000</b>	-
	<b>TOTAL (F) = (A)+(B)+(C )+(D)+(E)</b>	<b>50,08,43,766</b>	<b>50,60,53,900</b>

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

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(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

(AMOUNT ₹)

<b>SCHEDULE NO. 10 - GRANTS/SUBSIDIES</b>	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
Balance B/F	-	26,70,44,487
Add : Receipts during the year - Revenue Grant	2,08,26,02,850	1,97,76,26,318
- Capital Grant	-	42,82,00,000
	2,08,26,02,850	2,67,28,70,805
Less : Refund to MoE - 2021-22	-	26,70,44,487
Less : Refund to MoE - 2022-23	-	7,13,960
Less : Refund to MoE - 2023-24	-	-
Balance	2,08,26,02,850	2,40,51,12,358
Less : Utilised for Capital Expenditure (A)	-	42,78,70,625
Balance	2,08,26,02,850	1,97,72,41,733
Less : System reversal (TSA)	466	
Less : Utilised for Revenue Expenditure (B)	2,08,26,02,384	1,97,72,41,733
Balance C/F (C)	-	-

PLACE : SURATHKAL

DATE : 19-08-2024

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N.I.T.K., SURATHKAL

(AMOUNT ₹)

SCHEDULE NO. 11 - INCOME FROM INVESTMENTS		CURRENT YEAR	PREVIOUS YEAR
1	Interest		
	a. On Government Securities	4,12,56,194	-
	b. Other Bonds / Debentures	13,09,14,398	-
2	Interest on Term Deposits	8,41,58,953	25,20,58,888
3	Income Accrued but not Due on Term Deposits	9,83,28,750	-
4	Interest on Savings Bank Accounts (Earmarked/Endowment Fund Bank Accounts)	16,06,918	62,68,009
<b>TOTAL (A)</b>		<b>35,62,65,213</b>	<b>25,83,26,897</b>
Less : Transferred to Earmarked / Endowment Funds ( B)		29,11,32,179	22,12,20,646
<b>TOTAL (A)-(B)</b>		<b>6,51,33,034</b>	<b>3,71,06,251</b>

PLACE : SURATHKAL

DATE : 19-08-2024

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N.I.T.K., SURATHKAL

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(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL

(AMOUNT ₹)

SCHEDULE NO. 12 - INTEREST EARNED		CURRENT YEAR	PREVIOUS YEAR
1	Interest on Savings Bank Accounts (General Bank Accounts)	8,11,468	18,66,190
2	On Loans	-	-
3	On Debtors & Receivable		
	Interest on Income Tax Refund	-	6,42,308
	Interest on MESCOM Deposit/Other Advance	5,23,895	3,01,483
TOTAL		13,35,363	28,09,981

PLACE : SURATHKAL

DATE : 19-08-2024

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N.I.T.K., SURATHKAL

(AMOUNT ₹)

SCHEDULE NO. 13 - OTHER INCOME		CURRENT YEAR	PREVIOUS YEAR
A	1 Income from Land & Building		
	Hostel Room Rent	9,06,21,015	9,26,17,305
	Rent From Building	33,39,741	32,23,246
	Rent from Guest House	27,49,736	27,32,438
	Rent from Quarters	57,54,806	60,41,162
	2 Water/Electricity Charges Collection-Qtrs	6,25,616	6,91,776
	3 Water/Electricity Charges-Contractor	4,37,162	5,20,135
	<b>TOTAL (A)</b>	<b>10,35,28,076</b>	<b>10,58,26,062</b>
B	<b>Sale of Institute's Publications</b>	-	-
	<b>TOTAL (B)</b>	-	-
C	<b>Income from Holding Events</b>	-	-
	<b>TOTAL (C )</b>	-	-
D	<b>Other</b>		
	1 Income from Testing & Consultancy	7,60,14,772	5,01,83,622
	2 Sale of Application Form (Recruitment)	36,96,008	-
	3 Miscellaneous Receipts	9,33,902	8,69,621
	4 Profit on Sale/Disposal of Assets		
	a) Owned Assets	-	-
	b) Assets Received Free of Cost	-	-
	5 Grants/Donations from Insitutions, Welfare Bodies & International Bodies	-	-
	6 NITK Corpus Fund - Interest	20,39,51,324	15,45,68,353
	7 Projects Overhead Charges	48,92,299	-
	8 CRF - I R G	98,57,528	45,67,056
	9 Liquidated Damages	12,05,022	5,09,683
	10 Others (Specify)		
	Auction Sales	15,54,724	39,57,526
	Leave Salary & Pension Contribution	15,50,717	18,05,556
	Software Fee Plagiarism	1,71,000	1,66,000
	Transcript Charges	3,71,971	3,88,280
	Vehicle Running Charges	-	1,502
	Verification Fee	6,28,827	5,29,542
	<b>TOTAL (D )</b>	<b>30,48,28,094</b>	<b>21,75,46,741</b>
	<b>TOTAL (A)+(B)+(C )+(D)</b>	<b>40,83,56,170</b>	<b>32,33,72,803</b>
<b>SCHEDULE NO. 13 A - OTHER RESEARCH PROJECTS(Contra entry)</b>			
	1. Other Research Projects Recurring Exp.	16,52,23,534	-
	Less:- Capital expenditure	3,54,08,586	-
	<b>TOTAL</b>	<b>12,98,14,948</b>	-

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-  
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REGISTRAR  
N.I.T.K., SURATHKAL

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(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL



(AMOUNT ₹)

SCHEDULE NO. 14 - PRIOR PERIOD INCOME		CURRENT YEAR	PREVIOUS YEAR
1	Academic Receipts	-	-
2	Income from Investments	-	-
3	Interest Earned	1,69,206	-
4	Other Income - Service Tax	30,42,296	
5	Other Income - Depreciation	-	1,32,128
TOTAL		32,11,502	1,32,128

PLACE : SURATHKAL

Sd/-

Sd/-

DATE : 19-08-2024

(RAVINDRANATH K.)

(PROF. BHALLAMUDI RAVI)

REGISTRAR

DIRECTOR

N.I.T.K., SURATHKAL

N.I.T.K., SURATHKAL

(AMOUNT ₹)

SCHEDULE NO. 15 - STAFF PAYMENTS & BENEFITS		CURRENT YEAR	PREVIOUS YEAR
<b>A</b>	<b>STAFF PAYMENTS &amp; BENEFITS (ESTABLISHMENT EXPENSES)</b>		
a)	Pay Non-Teaching1	14,63,39,180	20,42,21,384
b)	Pay-Teachng	77,54,20,650	72,56,88,538
c)	New Defined Pension Contribution	5,75,34,339	5,11,13,921
d)	LTC/Home Travel Concession	1,14,12,863	1,17,17,200
e)	Medical Facility	1,40,32,570	1,65,59,751
f)	Children Education Allowance	71,75,825	63,26,066
g)	Others		
1	Livery to Class IV Staff	12,253	-
2	Cumulative Professional Dev Allowance	2,73,73,919	97,17,147
3	Staff Research Project	21,365	1,92,925
4	Staff Amenities	2,31,267	-
5	Training to Staff and Faculty	5,01,918	3,73,508
<b>TOTAL</b>		<b>1,04,00,56,149</b>	<b>1,02,59,10,440</b>

(AMOUNT ₹)

B EMPLOYEES RETIREMENT AND TERMINAL BENEFITS		CURRENT YEAR	PREVIOUS YEAR
Opening Balance as on 0104.2023		5,98,62,54,522	5,79,60,52,949
Add: Capitalised Value of Contributions Received from other Organisations		-	-
Total (a)		-	-
Less: Actual Payment during the year (b)		41,74,16,686	31,16,47,272
Balance as on 31.03.2024 (c )		<b>5,56,88,37,836</b>	<b>5,48,44,05,677</b>
Provision required on 31.03.2024 as per Actuarial Valuation (d)		6,23,65,88,521	5,98,62,54,522
A	Provision to be made in the Current year (d-c)	66,77,50,685	50,18,48,845
B	Contribution to New Pension Scheme	-	-
C	Medical Reimbursement to Retired Employees	-	-
D	Travel to Hometown on Retirement	-	-
E	Deposit Linked Insurance Payment	-	-
<b>TOTAL</b>		<b>66,77,50,685</b>	<b>50,18,48,845</b>
<b>TOTAL</b>		<b>1,70,78,06,834</b>	<b>1,52,77,59,285</b>

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

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Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

**SCHEDULE NO. 16 - ACADEMIC EXPENSES****CURRENT  
YEAR****PREVIOUS  
YEAR**

a) Participation in Conferences/Field work	22,13,225	13,65,093
b) Expenses on Seminars/Workshops	16,26,988	4,49,654
c) Payment to Visiting Faculty	17,42,475	55,99,948
d) Post Doctoral Fellowship	49,61,730	-
e) Convocation Expenses	44,37,418	35,31,292
f) Stipend/Means-cum-merit Scholarship	16,40,000	48,44,000
g) SC/ST Plan Grant Exp	2,50,06,053	2,76,70,087
h) Others		
1 Admission Expenses	57,34,891	49,97,798
2 Centre of Excellence	5,88,912	4,40,680
3 Coaching to SC/ST Students	1,04,073	3,42,103
4 Expert Lectures	7,26,282	6,36,071
5 NCC/NSS Activities Expenses	29,65,272	18,17,051
6 Phd Contingencies	91,91,057	92,13,511
7 Phd Evaluation/Viva Exp	42,63,255	38,31,389
8 Practical Training at Mining Site	5,03,418	5,24,707
9 Research Interaction	47,30,353	24,29,147
10 PG Stipend/ PhD Fellowship	35,38,05,302	34,69,20,671
11 Hindi Cell Activities	5,13,015	1,66,953
12 Operating Cost- Applied Mech (W R &O)	25,82,848	13,99,283
13 Operating Cost- Career Development Centre(CDC)	9,03,440	6,47,041
14 Operating Cost- Central Computing Facility	23,37,750	2,45,280
15 Operating Cost- Central Research Facility	49,34,512	48,01,281
16 Operating Cost- Chemical Engg.	59,64,294	61,72,798
17 Operating Cost- Chemistry	58,35,306	46,37,838
18 Operating Cost -Civil	66,26,884	45,82,963
19 Operating Cost- Computer Engg	11,97,147	15,91,624
20 Operating Cost- E&C Engg.	22,63,662	19,72,981
21 Operating Cost- E&E Engg.	14,85,055	19,16,270
22 Operating Cost- Information Tech	11,85,431	16,33,911
23 Operating Cost- Library	4,45,14,373	4,53,09,915
24 Operating Cost- MACS Dept.	20,51,012	6,10,449
25 Operating Cost- Mechanical Engg	83,87,302	65,39,828
26 Operating Cost- Metallurgical Engg.	47,05,277	40,95,477
27 Operating Cost- Mining	17,71,772	14,12,770
28 Operating Cost- Physics	33,53,780	36,58,095
29 Operating Cost-School of Humanities, Sc & Mgnt	17,29,109	14,38,845
30 Operating Cost-Sports	1,96,478	5,10,303
31 Student Internship	31,721	-
<b>TOTAL</b>	<b>52,68,10,872</b>	<b>50,79,57,107</b>

PLACE : SURATHKAL

DATE : 19.08.2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

(AMOUNT ₹)

<b>SCHEDULE NO. 17 - ADMINISTRATIVE AND GENERAL EXPENSES</b>		<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
A	Infrastructure		
	a) Electricity & Power	6,70,53,586	5,91,17,929
	b) Water Charges	2,74,87,792	2,24,48,879
	c) Insurance	-	-
	d) Rent, Rates & Taxes (including property tax)	6,04,195	5,98,701
B	Communication		
	e) Postage	2,04,635	1,17,234
	f) Telephone, Fax & Internet Charges	5,64,655	7,38,546
C	Others		
	g) Printing & Stationery	38,85,022	46,38,474
	h) Travelling, & Conveyance	50,69,193	18,20,247
	i) Hospitality/Entertainment	6,85,541	4,02,199
	j) Auditor Remuneration	1,92,430	2,75,900
	k) Professional Charges	15,51,732	9,29,470
	l) Advertisement & Publicity	9,65,610	18,17,757
	m) Magazines & Journals	59,000	59,000
	n) Hostel Establishment	1,60,79,393	1,81,06,138
	o) Others		
	Dispensary	1,59,19,779	1,68,07,178
	Security Outsourcing	5,83,15,970	6,20,78,385
	Contractual Staff/Manpower <sup>1</sup>	6,78,86,492	86,82,755
	Miscellaneous Expenses	24,91,684	33,79,506
	IRG Contingencies	6,56,756	5,18,718
	Project Overhead Expenses	48,92,299	-
	Recurring Expenses from Projects: Other Research Projects	12,98,14,948	8,39,71,014
	<b>TOTAL</b>	<b>40,43,80,712</b>	<b>28,65,08,030</b>

Note: 1 Contractual Staff/Manpower cost of ₹6,95,14,980 was accounted under 'Pay Non-Teaching ' during FY 2022-23 under the Head Staff Payments & Benefits (Establishment Expenses)', hence there is increase in current year cost as compared to previous year.

PLACE : SURATHKAL

DATE : 19.08.2024

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REGISTRAR

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(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

(AMOUNT ₹)

SCHEDULE NO. 18 - TRANSPORTATION EXPENSES		CURRENT YEAR	PREVIOUS YEAR
1	Vehicles		
	a) Running Expenses	13,65,411	13,95,617
	b) Repairs & Maintenance	-	-
	c) Insurance Expenses	1,58,063	1,69,417
2	Vehicles taken on Rent/Lease		
	a) Rent/Lease Expenses	-	-
3	Vehicles Hiring Expenses	-	-
TOTAL		15,23,474	15,65,034

PLACE : SURATHKAL

DATE : 19.08.2024

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REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

(AMOUNT ₹)

<b>SCHEDULE NO. 19 - REPAIRS &amp; MAINTENANCE</b>		<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a)	Building (ACB)	1,35,79,803	2,25,03,855
	Hostel	36,80,085	81,41,285
	Residential Bldg	34,51,846	45,38,899
b)	Furniture & Fixtures	2,81,040	2,32,405
c)	Machinery & Equipments	1,25,55,832	98,05,711
d)	Computers	2,90,34,288	3,05,83,335
e)	Gardening	29,82,148	30,53,727
f)	Others		
	Internal Telephone	24,02,873	22,67,947
	Guest House	9,61,974	8,30,325
	Campus Maint/upkeeping	34,03,798	17,16,678
	Electrical Installation	1,48,31,985	1,73,67,218
	House Keeping Charges	2,81,59,145	2,68,87,950
	Maintenance of Road	9,83,885	48,47,666
	Maint. of Waste Water Disposal	94,80,970	72,21,778
	Swachha Bharath Abhiyan	1,09,976	2,01,002
	Ek Bharath Shreshtha Bharath	14,94,009	-
	NIT Transit House	3,50,000	3,50,000
<b>TOTAL</b>		<b>12,77,43,657</b>	<b>14,05,49,781</b>

PLACE : SURATHKAL

DATE : 19.08.2024

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N.I.T.K., SURATHKAL

Sd/-  
(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL

(AMOUNT ₹)

<b>SCHEDULE NO. 20 - FINANCE COSTS</b>	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Bank Charges	1,47,986	10,57,150
b) Others - HEFA Loan Interest	5,85,27,857	7,33,87,749
<b>TOTAL</b>	<b>5,86,75,843</b>	<b>7,44,44,899</b>

PLACE : SURATHKAL

DATE : 19.08.2024

**Sd/-**  
**(RAVINDRANATH K.)**  
**REGISTRAR**  
**N.I.T.K., SURATHKAL**

**Sd/-**  
**(PROF. BHALLAMUDI RAVI)**  
**DIRECTOR**  
**N.I.T.K., SURATHKAL**



(AMOUNT ₹)

<b>SCHEDULE NO. 21 - OTHER EXPENSES</b>	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Application Fee Refund	6,32,500	-
b) Transfer to Corpus/Capital fund to the extent of Capital Exp-IRG & Revenue Exp.	5,93,24,986	2,92,80,473
c) Testing & Consultancy Expenses	7,51,89,506	5,01,83,622
d) Provision for Bad & Doubtful Debts/Advances	-	-
e) Irrecoverable Balances Written Off	-	-
f) Grants/Subsidies to other Institutions/Organisations	-	-
g) Recurring Expenses - Capital Grant	-	-
<b>TOTAL</b>	<b>13,51,46,992</b>	<b>7,94,64,095</b>

PLACE : SURATHKAL

DATE : 19.08.2024

**Sd/-**  
**(RAVINDRANATH K.)**  
**REGISTRAR**  
**N.I.T.K., SURATHKAL**

**Sd/-**  
**(PROF. BHALLAMUDI RAVI)**  
**DIRECTOR**  
**N.I.T.K., SURATHKAL**

(AMOUNT ₹)

SCHEDULE NO. 22 - PRIOR PERIOD EXPENSES		CURRENT YEAR	PREVIOUS YEAR
1	Establishment Expenses :	-	-
2	Academic Expenses	-	-
3	Administrative Expenses <sup>2</sup>	1,41,35,972	-
4	Transportation Expenses	-	-
5	Repairs & Maintenance	-	-
6	Other Expenses - Depreciation on Fund/Project Assets	-	-
<b>TOTAL</b>		<b>1,41,35,972</b>	<b>-</b>

Note: 2 Reimbursement of Bonus & Encashment of earned leave for contractual staff/manpower for the period from 2021-22 to 2022-23

PLACE : SURATHKAL

DATE : 19.08.2024

Sd/-  
(RAVINDRANATH K.)  
REGISTRAR  
N.I.T.K., SURATHKAL

Sd/-  
(PROF. BHALLAMUDI RAVI)  
DIRECTOR  
N.I.T.K., SURATHKAL

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

## RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31-03-2024

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
Opening Balances:					
(a) Cash in hand	11,088	22,596	Establishment and Administrative expenses	2,33,79,84,757	1,90,99,35,326
(b) Bank Balances:			Payments Against Earmarked/Endowment Funds	40,33,19,561	16,47,86,976
(i) In current accounts	13,47,22,877	19,64,09,174	Payments Against Sponsored Projects/Schemes	15,90,44,183	7,61,87,850
(ii) Savings accounts	5,15,65,123	2,19,91,566	Investments	3,36,43,89,372	3,22,80,53,126
(iii) HEFA accounts	5,58,157	4,30,50,812	Expenditure on Fixed Assets & Capital WIP	64,84,47,557	1,60,53,64,653
(iv) TSA accounts	-	26,70,44,487	Deposits & Advances	1,99,35,35,463	1,94,12,01,987
Grants Received:			Any Other Payments	1,15,42,10,214	1,29,86,84,199
(a) From Govt. of India			Closing Balances:		
Capital Grant	20,05,00,000		(a) Cash in hand	31,141	11,088
Revenue Grant	2,08,26,02,850		(b) Bank Balances:		
	2,28,31,02,850		(i) In current accounts	9,34,08,096	13,47,22,877
Less : Refund	2,25,31,50,348	2,13,80,67,871	(ii) Savings accounts	46,55,815	5,15,65,123
(b) From State Government	-	-	(iii) HEFA accounts	5,56,979	5,58,157
			(iv) TSA accounts	-	-
Academic Receipts	50,09,87,972	77,82,20,446			
Receipts Against Earmarked/Endowment Funds	61,90,26,078	53,24,90,897			
Receipts Against Sponsored Projects/Schemes/Plan	82,48,78,230	91,59,23,44			
Income on Investments	6,51,33,034	3,74,79,457			
Interest Received SB	8,11,468	18,66,190			
Deposits & Advances	2,17,72,14,139	1,98,28,41,770			
Investments Encashed/matured	2,79,33,47,979	2,61,66,88,043			
Any other receipts	73,81,76,644	87,89,74,606			
<b>TOTAL</b>	<b>10,15,95,83,137</b>	<b>10,41,10,71,362</b>	<b>TOTAL</b>	<b>10,15,95,83,137</b>	<b>10,41,10,71,362</b>

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL, P.O. SRINIVASNAGAR - 575 025

## **SCHEDULE 23:**

### **SIGNIFICANT ACCOUNTING POLICIES (2023-24)**

#### **1. BASIS FOR PREPARATION OF ACCOUNTS**

The accounts are prepared under accrual method of accounting.

#### **2. REVENUE RECOGNITION**

Revenue is recognised on accrual basis except for interest on Savings Bank Accounts.

#### **3. FIXED ASSETS AND DEPRECIATION**

**3.1** Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.

**3.2** Fixed assets are valued at cost less accumulated depreciation under different block of assets. Depreciation is charged as per Straight Line Method (SLM), refer Schedule No. 4 to Balance Sheet for block-wise depreciation charge. Wherever the asset value is nil due to depreciation, the asset is carried forward at a residual value of Rupee one in the Balance Sheet and will not be further depreciated. Thereafter, depreciation will be calculated on the additions of each year separately at the rate of depreciation applicable for that block of asset. Depreciation is calculated on the basis of number of days put to use on the new assets added during the year.

**3.3** The total value of assets acquired out of the Earmarked fund has been incorporated in the books of accounts and considered as Institute assets. These assets are included in **Schedule 4(A) and 4(B)**. The assets acquired from the sponsored projects are held and used by the Institute and are included in **Schedule 4D(a)**.

**3.4** The buildings and related works are capitalized as soon as the asset is handed over by CPWD and put to use by the Institute.

**3.5 Intangible Assets:** E-Journals and Computer Software are grouped under Intangible Assets.

#### **4. STOCK:**

Expenditure on the purchase of chemicals, glassware and other consumables are considered as Inventory and shown under Current Assets in Schedule No.7. However, printing & stationary items are accounted as revenue expenditure.

#### **5. RETIREMENT BENEFITS**

Employees Gratuity, Leave Encashment and Pension liability has been valued by the Actuaries and the same has been incorporated in the statement of accounts. For details, refer Notes on Accounts Sl. No. 9.

#### **6. INVESTMENTS**

Investments are stated at cost and the same is disclosed in detail as per the standard format.

#### **7. EARMARKED/ENDOWMENT FUNDS**

The income from investments is credited on an accrual basis to the respective Funds. The expenditures are debited to the Fund. The assets created out of Earmarked Funds where the ownership vests with the Institute are included along with the assets of the Institute by crediting an equal amount to the Capital

Fund. The balance in the respective funds is carried forward and is represented on the assets side by the balance at Bank, Investments and accrued income.

### **7.1 NITK CORPUS FUND**

Income earned from the investment is added to the Fund. Only the investment Interest earned under the Corpus Fund may be utilised for both Revenue and Capital expenditure based on the guidelines of the Institution. In the 44th BoG meeting held on 23-03-2016, it was resolved to remove the upper accumulation ceiling limit for NITK Corpus Fund (FC Item No. 34.3.11 dated 23-03-2016). The interest earned out of the Investment shall be transferred to Institute's revenue account as per the BoG resolution No.53.3 dated 05.10.2018.

### **7.2 ENDOWMENT FUNDS**

Endowment funds are received from various individual donors, Trusts and other organisations for establishing Chairs and for Medals & Prizes as specified by the Donors. The income from the investment of each Endowment Fund is added to the respective Fund. The expenditure on Medals & Prizes is met from the interest earned on the investment of the respective Endowment Funds and the balance is carried forward. The balances are represented by Investment in Fixed Deposits and balance in the Savings Bank Account and Accrued Interest on Investments.

## **8. GOVERNMENT (MoE) GRANTS**

**8.1** Government Grants are accounted on sanction/realization basis. However, where a sanction for release of grant pertaining to the financial year is received before 31<sup>st</sup> March and the grant is actually received in the subsequent financial year, that grant is accounted on accrual basis and an equal amount is shown as receivable from the Government.

**8.2** Government Grants utilised towards capital expenditure (on an accrual basis) is transferred to the Capital Fund to the extent of the amount spent on capital expenditure.

**8.3** Government grants for meeting Revenue Expenditure (on an accrual basis) are considered to the extent utilised, as income of the year in which they are realised.

**8.4** Unutilized grants (excluding advances paid out of such grants) are automatically reversed by the system as at the year end.

## **9. HEFA LOAN**

As per the Govt of India policy the financial assistance for creation of educational infrastructure and R&D in India's Premier Educational Institutions is through HEFA. Institute has got sanctioned HEFA loan of ₹ 220.64 crores for four major projects. The principal amount will be repayable out of the Internal Revenue Generation of the Institute in 10 years in half yearly instalment (Schedule 3B).

## **10. INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVESTMENTS:**

To the extent not required immediately for expenditure, the amounts available against such funds are invested in Short/Long Term Deposits in Scheduled Nationalized Banks, leaving a balance in Savings Bank Accounts. Interest received, interest accrued and due and interest accrued but not due on such investments are added to the respective funds and not treated as income of the Institution except for Corpus Fund.

## 11. SPONSORED PROJECTS

**11.1** In respect of ongoing Sponsored Projects, the amounts received from sponsors are credited to the head "Current Liabilities and Provisions - Current Liabilities - Projects/Other Research Schemes (Refer Schedule 3(a) for project-wise receipts details). As and when expenditure is incurred/advances are paid against such projects, or the concerned project account is debited with allocated overhead charges, the liability account is debited.

**11.2** Fellowships and Scholarships sponsored by various organisations are accounted in the same way as sponsored Projects and the disbursement of Fellowships, Scholarships and contingent expenditure are met out of this Funds (Refer Schedule 3(b) for details).

**11.3** The Institution awards Fellowships and Scholarships to Under Graduate and Post Graduate students, which are accounted as Academic expenses.

**11.4** Other Academic Receipts of ₹3,87,000 in Schedule No.9 represents forfeited fee of B.Tech students and tuition fee received from repeaters to the extent of ₹1,20,000 and ₹2,67,000 respectively.

## 13. INCOME TAX

The income of the Institution is exempt from Income Tax under Section 10(23C) of the Income Tax Act, hence there is no provision for tax liability created in the books of accounts.

Date : 19-08-2024

Place : Surathkal

**Sd/-**  
**(RAVINDRANATH K.)**  
**REGISTRAR**  
**N.I.T.K., SURATHKAL**

**Sd/-**  
**(PROF. BHALLAMUDI RAVI)**  
**DIRECTOR**  
**N.I.T.K., SURATHKAL**

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

SURATHKAL, P.O. SRINIVASNAGAR - 575 025

## SCHEDULE 24:

### CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (2023-24):

#### A. CONTINGENT LIABILITIES:

##### 1. CONTINGENT LIABILITIES:

1.1 As on 31.03.2024, an arbitration case is pending for decision with regard to the contractor. Construction of Ladies Hostel ₹29,79,122/-

1.2 Disputed demands in respect of Service Tax is ₹22,97,932/-. Presently the appeal is with the Commissioner of Central Excise (Appeals) and we have paid the mandatory pre-deposit of ₹2,29,800/- being the 10% of the service tax demand of ₹22,97,932/- [Appeal File No. A.No.35/16/MR/ST].

#### B. NOTES TO ACCOUNTS:

##### 2. FIXED ASSETS:

2.1 Additions in the year to Fixed Assets in Schedule include Assets purchased out of Capital Grant ₹118,09,07,193/-, IRG Capital Expenses ₹3,42,69,463/-, Non-Plan ₹5,93,24,985/-, Other designated funds/workshops ₹64,45,763 /-, Gift ₹7,33,520/-.

2.2 Assets acquired during the year under Other Research Projects is ₹3,21,70,000/-.

2.3 Fixed Assets acquired out of Capital Grant, Revenue Grant and other funds have been exhibited in Sub Schedules A, B & C of the main Schedule of Fixed Assets (Schedule 4).

2.4 Depreciable fixed assets as set out in Schedule 4 do not include assets purchased out of funds of sponsored ongoing projects, as project contracts include stipulations that all such assets purchased out of project funds will remain the property of the sponsors.

2.5 Depreciation has been calculated under Straight Line Method (SLM). Under this method, the depreciation is calculated on original cost of the asset.

3. **DEPOSIT LIABILITIES:** There are various deposits received from Contractors / Firms as performance security/EMD, Lease Deposits and other Deposits as on 31st March 2024.

##### 4. EXPENDITURE IN FOREIGN CURRENCY:

During the year 2023-24 the Institute has incurred expenditure in foreign currency and remitted the amount as under:

Type of Currency	Amount	Purpose
GBP	1,36,426/-	Procurement of Equipment

##### 5. CURRENT ASSETS, LOANS, ADVANCES AND DEPOSITS:

In the opinion of the Management, the Current Assets, Loans, Advances and Deposits have a value on realisation in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

6. Balance in Reserve Bank of India TSA-10681301001 account as on 31.03.2024 is NIL after day end system reversal.



**6.1** The following Project Bank Accounts are maintained under Zero balance subsidiary accounts.

1. Canara Bank - MPSW-A/C No 110058244692-Canara-9061
2. SBI - MSME-4116-SBI A/C No 41291918931
3. Bank of Maharashtra No 60428193589, BK of Maharashtra , 3237
4. Bank of Maharashtra No 60428981467, BK of Maharashtra -1817
5. Canara Bank GIAN Account No.110080835767 – 3356
6. R B I, R&D Account No.10687701158 – 2354
7. SPARC SBI Account No.41512400638 – 3614
8. Union Bank Account No.017722010000465 – 1819
9. Union Bank Account No. 017722010000671 – 3972

**7.** Figures in the Final accounts have been rounded off to the nearest rupee.

**8.** Schedules 1 to 22 are annexed to and form an integral part of the Balance Sheet at 31<sup>st</sup> March 2024 and the Income & Expenditure account for the year ended on that date.

**9.** The existing employees' terminal benefit & Pensioners liability as per the requirement under the uniform accounting standards prescribed by the Ministry is valued at Rs.623.66 crores as on 31-03-2024 by Actuary M/s. K.A. PANDIT, an approved Consultants and Actuaries, Mumbai. The details are as follows:

Pension Liability	₹ 539.98 Crore
Leave Encashment Liability	₹ 48.45 Crore
Gratuity Liability	₹ 35.23 Crore

**10.** The General Provident Fund Account is owned by the members of NITK GPF Trust and are maintained separately. The Receipts & Payments Account, Income & Expenditure Account (on accrual basis) and the Balance Sheet of Employees' Contributory Cum General Provident Fund Account for the Financial Year 2023-24 have been attached to the Institute's Accounts. During the year a sum of ₹4,00,42,440/- has been collected and transferred to the GPF Trust Account [Investment Pattern: Central Govt. & State Govt. Securities 56.74%, Debt Securities/Term Deposits/Public Finance Bond Securities 41.68%, Money market instruments including units of money market Mutual Funds 1.58%].

All portion of the New Pension Scheme funds of ₹4,32,32,399/- in respect of 291 employees who have been allotted PRA numbers has been transferred to National Securities Depository Limited (NSDL) - Central Record Keeping Agency (CRA).

#### **11. WORK-IN-PROGRESS:**

Work-in-Progress is valued at cost basis.

#### **12. HEFA LOAN:**

During the year, there is no new loan availed by the Institute from HEFA for construction. During the year interest charged on all 4 Loans is ₹ 4.43 crores. The interest on HEFA loans are treated as revenue expenditure and shown under Schedule No.20 of Income & Expenditure Account.

All assets acquired out of HEFA loan are hypothecated to HEFA till the loan is discharged in full.

#### **13. TUITION FEE:**

The tuition fee is collected on a semester basis and accounted as per semester even though the period is spread over to two financial years.

#### **14. PATENTS:**

Capitalization of patents will be considered for capitalization after evaluation & completion of Licensing & commercialization process.

#### **15. OTHER:**

1. Previous year figures have been re-casted and regrouped wherever necessary in conformity with current year presentation.
2. Tuition fee exemption has been extended to all SC/ST students along with other benefits. Hence, tuition fee is accounted on accrual basis and other benefits such as Laptop, Book allowance, Mess Allowance etc., accounted on claim basis.
3. (i) During the year 2013-14 area of the land measuring 1.40 acres of land acquired by NHAI.  
(ii) The Land value disclosed in Fixed Assets Schedule includes ₹24,014/- land measuring 78 cents which was under dispute.
4. N.I.T.K. Hostel Trust Account is maintained separately. It is a separate entity governed by the NITK Hostel Trust (R).

Date : 19-08-2024

Place : Surathkal

**Sd/-**  
**(RAVINDRANATH K.)**  
**REGISTRAR**  
**N.I.T.K., SURATHKAL**

**Sd/-**  
**(PROF. BHALLAMUDI RAVI)**  
**DIRECTOR**  
**N.I.T.K., SURATHKAL**

**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL**  
**EMPLOYEES CONTRIBUTORY CUM GENERAL PROVIDENT FUND.**

**BALANCE SHEET AS ON 31<sup>ST</sup> MARCH, 2024**

LIABILITIES	Amount in Rupees	ASSETS	Amount in Rupees
<b>GENERAL FUND :</b>		<b>INVESTMENTS :</b>	
Balance as per last Balance Sheet	1,00,14,597	Govt. and Other Securities	39,30,19,887
Less: Loss on sale of Bonds	20,21,904		
	79,92,693		
Add : Excess of Expenditure over Income	5,97,424	Accrued Interest on Investments	36,85,614
			39,67,05,501
<b>GPF SUBSCRIPTION :</b>		<b>TAX DEDUCTED AT SOURCE</b>	10,62,086
Balance as per last Balance Sheet	40,71,41,350		
Add : GPF Subscription & Interest	6,84,44,992	<b>TAX COLLECTED AT SOURCE</b>	46,690
	47,55,86,342		
Less : Final/Partial Settlement	7,86,82,452	<b>CLOSING BALANCE :</b>	
		With SBI SB. A/c. No. 1017536747-6	76,79,730
			<b>40,54,94,007</b>

As per report of even date.

Place : Bengaluru  
Date : 31-05-2024

For G R A N D M A R K & ASSOCIATES

Chartered Accountants  
Firm Reg. No. 011317N

Sd/-  
**PRESIDENT**

Sd/-  
**SECRETARY**

Sd/-  
**CA. KANAKAMBA H K**  
Partner  
Membership No. 209255

## INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2024

**As per report of even date.**

**For GRAND MARK & ASSOCIATES**

**Sd/-**  
**CA. KANAKAMBA H K**  
**Partner**  
**Membership No. 209255**

**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL**  
**EMPLOYEES CONTRIBUTORY CUM GENERAL PROVIDENT FUND**  
**RECEIPTS AND PAYMENT ACCOUNT FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2024**

RECEIPTS	Amount in Rupees	PAYMENTS	Amount in Rupees
To <b>OPENING BALANCE :</b>		By Interest Paid to GPF Members	2,84,02,552
S.B.I., Surathkal, S.B. A/c. No. 1017536747-6	55,68,324		
Investments	40,65,63,884	" Interest Paid on Purchase of Investments	14,49,583
" <b>INTEREST :</b>	41,21,32,207	" Premium Paid on Purchase of Investments	2,40,000
On Investments.	2,94,96,771		
On Special Deposit with S.B.I., Mangalore A/C No.4	5,40,921	" Final/Partial Settlement to GPF Members	7,86,82,452
On Bank Balance	5,94,545	" Audit Fee	44,840
" <b>CAPITAL GAINS :</b>	3,06,32,237		
Short Term Capital Gain	10,36,222	" Professional Fee	28,332
Long Term Capital Gain	3,80,439	" Bank Charges/Demat Account Charges	4,140
" GPF Subscription & Interest	6,84,44,992	" TDS/TCS	11,08,776
" Income Tax Refund	31,657	" Loss of sale of Govt. Bonds	20,21,904
" Interest on Income Tax Refund	24,443	" <b>CLOSING BALANCE :</b>	
		S.B.I., Surathkal, S.B. A/c. No. 1017536747-6	76,79,730
		Investments	39,30,19,887
			40,06,99,617
			<b>51,26,82,197</b>
	<b>51,26,82,197</b>		

As per report of even date.

Place : Bengaluru  
Date : 31-05-2024

For **G R A N D M A R K & ASSOCIATES**

Chartered Accountants  
Firm Reg. No. 011317N

Sd/-  
**PRESIDENT**

Sd/-  
**SECRETARY**

Sd/-  
**CA. KANAKAMBA H K**  
Partner  
Membership No. 209255

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

NPS TIER - 1 ACCOUNT

BALANCE SHEET AS ON 31<sup>ST</sup> MARCH, 2024

LIABILITIES	(AMOUNT ₹)	ASSETS	(AMOUNT ₹)
<b>CURRENT LIABILITIES :</b>		<b>CLOSING BALANCE :</b>	
Amount Payable to NSDL	1,08,09,218.00	Balance with main Fund	1,08,09,218.00
	1,08,09,218.00		1,08,09,218.00

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

DIRECTOR

N.I.T.K., SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

NPS TIER - 1 ACCOUNT

RECEIPTS AND PAYMENT ACCOUNT FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2024

RECEIPTS	(AMOUNT ₹)	PAYMENTS	(AMOUNT ₹)
To <u>OPENING BALANCE:</u>			
Balance with main Fund	73,56,141.00	By Remittance to NSDL	9,73,13,661.00
" <u>NPS Tier-I Account :</u>		" <u>CLOSING BALANCE :</u>	
Own Subscription	4,32,32,399.00	Balance with main Fund	1,08,09,218.00
Institutes Subscription	5,75,34,339.00		
	10,81,22,879.00		10,81,22,879.00

PLACE : SURATHKAL

DATE : 19-08-2024

Sd/-

(RAVINDRANATH K.)

REGISTRAR

N.I.T.K., SURATHKAL

Sd/-

(PROF. BHALLAMUDI RAVI)

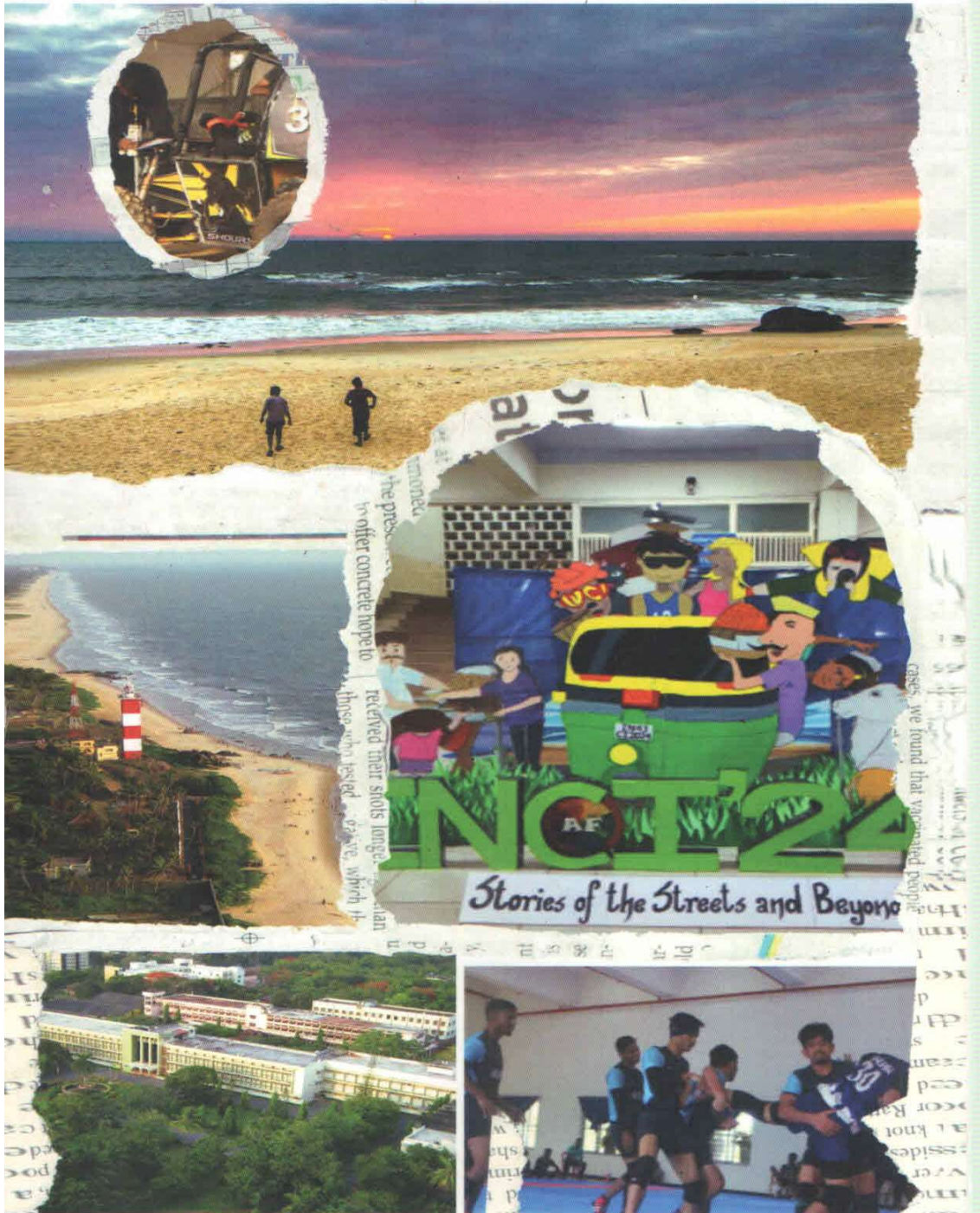
DIRECTOR

N.I.T.K., SURATHKAL



Phone: +91 824 247 4000

email: registrar@nitk.edu.in



Facebook: <https://www.facebook.com/nitkarnatakaOfficial>  
Twitter (X): [https://twitter.com/surathkal\\_nitk](https://twitter.com/surathkal_nitk)

LinkedIn: <https://www.linkedin.com/school/nitk-surathkal/>  
Instagram: <https://www.instagram.com/nitk.surathkal/>