

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

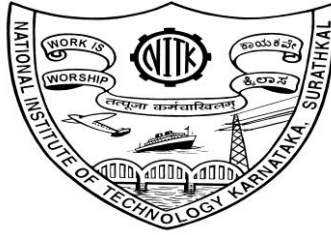
DEPARTMENT OF CENTRE FOR SYSTEM DESIGN
POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)

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NOTICE INVITING QUOTATION

Notification No: NITK/CSD/2022/Vlab-2/UAV-SP/PU-04

Date : 12-08-2022

Name of Goods	UAV Spare Parts
Estimated Amount:	Rs. 2,40,000/-
Time for Supply of item after release of Purchase order	15 Days
Document Download / Sale Start Date	12-08-2022
Clarification Start Date	12-08-2022
Clarification End Date	22-08-2022
Bid Submission Start Date	12-08-2022
Last Date for submission of bids	26-08-2022 before 3.00 PM
Bid Opening Date	29-08-2022 before 3.00 PM
Address for Submission of bids	Dr. Pruthviraj U Assistant Professor, Dept. of Water Resources & Ocean Engineering NITK Surathkal – 575025, M: +91-9972797225, Email : pruthviu@nitk.edu.in



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NOTICE INVITING QUOTATION (NIQ)

The National Institute of Technology Karnataka, Surathkal (in short – NITK, Surathkal) is an Institute Of National Importance Under Ministry of Education Govt of India, imparting Technical Education and engaged in Research Activities. It is proposed to procure the items for the departmental academic/research activities.

Sealed Quotations as per the Price Schedule given in this NIQ are invited for the following items subject to the terms and conditions, from the reputed manufacturers or its authorised dealers so as to reach on or before scheduled date and time. The quotations in the firm's Business letter head should be address to the "Director, NITK, Surathkal". The envelope shall be superscribed with the Quotation Notification Number and the Name of the Goods for which quotation is submitted.

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Sd/-
Coordinator

Note: Institute shall not be responsible for any postal delay about non-receipt /non-delivery of the bids or due to wrong addressee.

SECTION-1
Terms and Conditions

1. The rates should be quoted for preferably FOR destination from supply within India.
2. The bidder shall indicate the excise duty exemption for the goods if applicable.
3. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any. The rate should be quoted in INR only
4. Rate quoted should be inclusive of Testing, commissioning and Installation of equipment and Training.
5. Payment: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier.
6. Guarantee/Warranty period should be specified for the complete period should be specified in section 3 of this tender document.
7. Period requirement for the supply and installation of item should be specified in section 3 of this tender document.
8. In case of dispute, the matter will be subject to Mangalore Jurisdiction only.

SECTION-2
SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS
[To be filled up by the Department / Centre of NITK, Surathkal]

Item(s) Name to be Procured : UAV Spare Parts

Brief Specifications of the Item(s)
(Attach Additional Sheet if necessary) : Attached in Annexure 1

Quantity : 1 Set

Any other details / requirement : Nil

Warranty Period required : NA

Delivery Schedule expected
after placement of Purchase order
(in Weeks) : 15 Days

SECTION 3
PRICE SCHEDULE

[To be used by the bidder for submission of the quotation]

-
1. Item Name :
 2. Specifications
(Conforming to Schedule of requirements
Enclose additional sheets if necessary) :
 3. Currency and Unit Price :
 4. Quantity :
 5. Item Cost (Sl No. 3 * Sl. No. 4) :
 6. Taxes and Other Charges :
(i) Specify the type of taxes and duties
in percentages and also in figures.
(ii) Specify Other Charges in figures.
 7. **Warranty Period** :
(Conforming to the Schedule of requirements)
 8. Delivery Schedule :
(Conforming to the Schedule of requirements)
 9. Name and address of the Firm for
placing purchase order :
 10. Name and address of Indian authorized
agent (in case of imports only) :

Signature of the Bidder: _____

Name and Designation: _____

Business Address : _____

Place:

Date:

Seal of the Bidder's Firm

SECTION 4
CONTRACT FORM

[To be provided by the bidder in the business letter head]

1. (Name of the Supplier's Firm) hereby abide by the delivery schedule mentioned in this document for supply of the items if the purchase order is awarded.
2. The item will be supplied conforming to the specifications stated in this document without any defect and deviations.
3. Warranty will be given for the period mentioned in this document and service will be rendered to the satisfaction of NITK, Surathkal during this period.

Signature of the Bidder: _____

Name : _____

Business Address : _____

Place :
Date :

Seal of the Bidder's Firm

Annexure 1

Specifications

Main Controller Board (1 No)

The advanced 32-bit ARM CortexM4 high-performance processors can run the NuttX RTOS real-time operating system.

14 PWM / servo output., Bus interface (UART, I2C, SPI, CAN), The integrated backup power and backup controller fails, the primary controller fails over to the backup control is safe, Provide automatic and manual modes., Provide redundant power input and failover., Multicolor LED lights., Provide multi-tone buzzer Interface. Minimum 16Gb Micro SD recording trial data.

Processor: 32bit STM32F427 Cortex M4 core with FPU., 168 MHz, 128 KB RAM, 2 MB Flash, 32-bit STM32F103 failsafe co-processor

Vision Sensor (1 No)

Supply Voltage: DC 3 - 5.5V, Electronic Shutter Speed: Auto, Lense Viewing Angle(FOV): 155°, Horizontal Resolution(TVL): 700, Housing Material: ABS, Image Sensor: 1/3 " CMOSMin. Illumination: 0.01Lux@1.2F, S/N Ratio(dB): >50, Signal System: PAL/NTSC Non Switchable, Auto Gain Control(AGC): Auto, DImensions(mm): 14*14*16. Net Weight(gm): 3.5

Video Transmitter Module (1 No)

Input Voltage: 7-26V, Channe: 40, Video Format Supported: PAL/NTSC, Input voltage: 7-26V. ,Onboard BEC output: 5V, Channels: 40CH Transmitting: 25/100/200/400mW Switchable, Video format: PAL/NTSC, Control protocol: TBS Smart audio V2

Video Receiver Module (1 No)

Number of Channels: 48, Operating Voltage(VDC): 12, Current Consumption(mA): 200, Antenna Gain: 2dB, Antenna Length(mm): 100, Video Format Supported: NTSC/PAL, Colour: Black, Net Weight(gm): 85, Dimensions(mm): 80*65*15, Antenna Connector: RP-SMA Male

Monitor Display Screen (1 No)

Backlight: LED, Input Voltage(V): 12 to 24, Pixel Resolution: 1024*600, Contrast: 500:1, Display Size(inch): 7, Rated Power(W): ≤B, Shape Size: 174*114mm, Operating Temperature(°C): -10 to 60, Cable Length(cm): 40, Weight(g): 260, With portable Bluetooth Audio and a metal mount for display and video streamer : Output Resolution: 4K, 1080i/p, 720p, 576i/p, 480i/p up to 60 Hz, CPU: Cortex-A53 Quad-core 64bit, 1.5Ghz, GPU: Mali-450 750MHz, RAM: 2GB DDR3, Storage: 8GB with open source OS

Brushless DC Motor (2450KV) (4 No)

Stator Diameter: 23mm, Stator Length: 6.5mm, Shaft Diameter: 4mm(Hollow), Configuration: 12N14P, Motor dimension(Dia*Len): Ø29.6*34.6mm, Idle Current(10@10V(A): 2.1, No. of Cells(Lipo): 4~5S, Max Power(W)5S: 980, Internal Resistance: 35mΩ, Max Current(5S):47A, Motor Weight(g): 33g (3cm Wire), Max. Efficiency Current: (4-9A)>85%

Power Distribution Board (1 No)

Con. Current: 50A, Burst Current: 55A (10 Seconds), Input Voltage: 2-6S, Firmware: Support DShot300/600/1200, LED: 4*WS2812, Current Sensor: YES , Telemetry Function: Yes, BEC, Output: NO, Size: 42×42×4mm, Mounting Hole: 30.5x30.5mm (M3), Weight: 10g

Rotor (4 CCW, 4 CW) (8 No.s)

Rotor Diameter: 5 inches, Pitch: 4.3, Blades : 3, Material: Polycarbonate, Weight: 3.8g, Hub Diameter: 12.8mm, Hub Thickness:6.5mm, Shaft:5mm

Lithium Polymer Cells (1 No)

Output Voltage(VDC): 14.8, Charge Rate(C): 25C, Discharge Plug: XT-60, Balance Plug: JST-XH

Mini On Board Display for Main Controller (1 No)

Input supply: 12v, ATmega328P with Arduino bootloader, MAX7456 monochrome on-screen display, FTDI cable compatible pinout, Standard 6 pin ISP header, 2 independent power sections
With an LED indicator on each.

DC-DC 5-32V Adjustable Step-Down 5A Buck Power Supply Module (1 No)

Input voltage range: 5V-32V, DC Output voltage range: 0.8V-30V, DC adjustable, Output current: 0-5A, High efficiency up to 96%