## NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF COMPUTER SCEINCE AND ENGINEERING POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)

Phone: (0824) 2474000. E- mail: info@nitk.ac.in Fax: (0824) 2474033 Website: http://www.nitk.ac.in



### **NOTICE INVITING QUOTATION**

#### Notification. No: NITK/CSE/MPT/EMBRACE/FCMAK/648/2024/04

Date : 11-06-2024

Name of Goods	Foldable Compact Multi-Band Antenna Kit	
Estimated Amount:	₹ 2,15,000/-	
Time for Supply of item after release of Purchase order	7 Days	
Document Download / Sale Start Date	12-06-2024, 03:00 PM	
Clarification Start Date	12-06-2024, 03:00 PM	
Clarification End Date	21-06-2024, 03:00 PM	
Bid Submission Start Date	12-06-2024, 03:00 PM	
Last Date for submission of bids	02-07-2024 before 3.00 PM	
Bid Opening Date	03-07-2024, 03:00 PM	
Address for Submission of bids	Dr. Mohit P Tahiliani Associate Professor, Dept. of Computer Science & Engineering, NITK – Surathkal, PO Srinivasnagar, Mangalore – 575025 Dakshina Kannada District, Karnataka Contact No. : 0824 -2473410 E-mail : tahiliani@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/-Head of the Department

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/Warrantee 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.
- 9. <u>Liquidated Damages</u>: Timely delivery is the essence of the contract and hence if the Supplier fails to deliver Goods within the original/extended delivery period(s) specified in the contract, the Institute will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 1% per week or part of the week of the delayed period as pre-estimated damages not exceeding 5% of the contract value without any controversy/dispute of any sort whatsoever.

#### 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	: Foldable Compact Multi-Band Antenna Kit
Brief Specifications of the Item(s) (Attach Additional Sheet if necessary)	: Attached
Quantity	: 01 Kit
Any other details / requirement	: Nil
Warranty Period required	: 01 Year
Delivery Schedule expected after placement of Purchase order (in Weeks)	: 1 week

# 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 (SI No. 3 * SI. No. 4)	:			
6.	<ul><li>Taxes and Other Charges</li><li>(i) Specify the type of taxes and duties in percentages and also in figures.</li><li>(ii) Specify Other Charges in figures.</li></ul>	:			
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)	:			
Signa	Signature of the Bidder:				
Name	and Designation:				
Busin	ess Address :				
Place	:	Seal of the Bid			

Date:

Seal of the Bidder's Firm

#### <u>SECTION 4</u> 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 Bidd	er:		-
Name	:		
Business Address	:		_
Place : Date :		Seal of the	— Bidder's Firm

#### Specifications for Foldable Compact Multi-Band Antenna Kit

The Foldable Compact Multi-Band Antenna is a versatility, performance, and compact design antenna with the following key features. The Six Band Foldable Compact Multi-Band Antenna is designed to cover six amateur radio bands: 6 meters (50 MHz), 10 meters (28 MHz), 12 meters (24 MHz), 15 meters (21 MHz), 17 meters (18 MHz), and 20 meters (14 MHz). This wide frequency range makes it highly versatile for various communication needs. Unlike many traditional beam antennas, the Foldable Compact Multi-Band Antenna has a compact footprint. Its hexagonal shape allows it to be more space-efficient, making it suitable for installations in areas with limited space, such as urban environments. Performance. The Foldable Compact Multi-Band Antenna is known for its good performance, offering a reasonable gain and front-to-back ratio. These characteristics help reduce noise and improve signal clarity, which is crucial for effective communication over longer distances. As a directional antenna, the Foldable Compact Multi-Band Antenna can be rotated to focus its gain in a particular direction. This enhances the signal strength in the desired direction while reducing interference from unwanted directions. It must be Made in India Foldable Compact Multi-Band Antennas The materials used in Foldable Compact Multi-Band Antenna construction are typically lightweight, such as fibreglass and aluminium. This makes the antenna easier to install and maintain, especially when a heavy-duty tower is not feasible. Due to its compact and open-frame design, the Foldable Compact Multi-Band Antenna has a lower wind load than traditional beam antennas. This reduces the stress on supporting structures and makes it more resilient in adverse weather conditions. Compared to other multi-band beam antennas, the Foldable Compact Multi-Band Antenna is often more cost-effective, offering a good balance of performance and affordability. This makes it a popular choice for both new and experienced amateur radio operators. The plate is formed from a high-strength and lightweight T6 aluminium plate, the plate is 6mm thick and professionally cut on a CNC machine for 100% accurate cut. All U-Bolts and fixings on the base plate are stainless steel for maximum protection against corrosion. Fibreglass arms/spreaders must be used for construction. element clips are fitted to the spreaders to hold the wire elements in place, there is one for each band. These are made from UV-resistant non-conductive materials. They are held in place with a stainless steel machine screw and nut. The end of each spreader section is sleeved with aluminium ferrules to prevent them from splitting when pressure is placed on them when they are bent to form the shape of the Foldable Compact Multi-Band Antenna. Two cords are fitted to the ends of each spreader by means of an eyelet or similar non-ferrous fixing. One is to be attached to the guy ring fitted to the top of the Foldable Compact Multi-Band Antenna centre post to form the bend in the spreader, the second cord is attached to the tip of the next spreader, this forms the radius support for each tip. Each Foldable Compact Multi-Band Antenna element is made from seven-strand copper wire with a PVC coating with polyester spacer cords, all joints are sealed with heat shrink wrapping. The Foldable Compact Multi-Band Antenna Kit must include a 8 ft truss and be supported on an existing 30 ft truss. It must also be securely guyed using stainless steel ropes, and all necessary accessories must be provided. Thrust bearings and mounting accessories should be included and assembled with a

well-designed rotor cage. These bearings help reduce the load on the rotor by transferring the weight of the antenna and mast to the tower or the mast itself. The Foldable Compact Multi-Band Antenna Kit must be tuned and installed using a crane and tested. Must combating a is a highly reliable rotor designed for light to medium-sized amateur radio antennas, capable of handling

up to 10 square feet of wind load. It must offer precise directional control with its easy-to-use control box, featuring preset capabilities and variable speed rotation for smooth and accurate antenna positioning. Built to withstand harsh environmental conditions, It must be constructed with durable materials that ensure longevity and consistent performance. This rotor integrates seamlessly with other Yaesu equipment, making it an ideal choice for amateur radio enthusiasts looking for a dependable and user-friendly antenna rotor solution the integrated rotor motors often include safety features such as: Brake systems to hold the antenna securely in place when not rotating, preventing wind-induced movement. The overlap function must allow the rotor to rotate beyond the 360-degree mark to help reposition without having to rotate a full circle back. 45 ft Low Signal Loss RG-213 Coax cable must be provided along with this kit. The cable must have a characteristic impedance of 50 ohms.

Quantity: 1 Kit Warranty: One Year Delivery time: 7 days Delivery Location: SEARCH Site, NITK Surathkal

Sd/-Faculty in-charge of Purchase (Buyer) Sd/-HOD CS&E