NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF CENTRE FOR SYSTEM DESIGN 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/CSD/2023/RKVY-COF/ON-SHMFAF/PU-04

dated: 11/03/2024

Name of Goods	ON-SITE HEALTH MONITORING FOR AQUACULTURE FARM
Estimated Amount:	₹ 1,85,000/- (Including Tax)
Time for Supply of item after release of Purchase order	15 Days
Document Download / Sale Start Date	12-03-2024, 4.00 PM
Clarification Start Date	12-03-2024, 4.00 PM
Clarification End Date	25-03-2024, 3.00 PM
Bid Submission Start Date	12-03-2024, 4.00 PM
Last Date for submission of bids	25-03-2024 before 3.00 PM
Bid Opening Date	26-03-2024, 3.30 PM
Address for Submission of bids	Dr. Pruthviraj U Professor-In-Charge(Transdisciplinary R&D) Associate Professor, Dept. of Water Resources & Ocean Engineering NITK Surathkal – 575025, (M) 9972797225 (O) 0824-2473915 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/-HOD

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.

SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

[To be filled up by the Department / Centre of NITK, Surathkal]

Item(s) Name to be Procured	: ON-SITE HEALTH MONITORING FOR AQUACULTURE FARM
Brief Specifications of the Item(s) (Attach Additional Sheet if necessary)	: Attached
Quantity	: Set
Any other details / requirement	:
Warranty Period required	: NA
Delivery Schedule expected after placement of Purchase order (in Weeks)	: 2 Weeks

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.	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)	:
Signa	ture 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. <u>(Name of the Supplier's Firm)</u> 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 Bi	dder's Firm

Specifications

ON-SITE HEALTH MONITORING FOR AQUACULTURE FARM:

The requirement for "ON-SITE HEALTH MONITORING FOR AQUACULTURE FARM" underscores the need for a robust and real-time monitoring system to ensure the structural integrity of aquaculture facilities. This initiative aims to deploy on-site sensors and monitoring devices to assess and track the health of key structural components such as ponds, tanks, and support infrastructure. By implementing a comprehensive monitoring solution, potential issues related to wear and tear, corrosion, or other structural vulnerabilities can be proactively identified, preventing costly damages and operational disruptions. This requirement reflects a commitment to sustainable aquaculture practices by prioritizing the maintenance and longevity of infrastructure. The integration of cutting-edge technology will enable continuous data collection, facilitating timely intervention and minimizing risks associated with structural deterioration. Overall, this initiative aligns with the industry's goal of enhancing operational efficiency, reducing environmental impact, and ensuring the long-term viability of aquaculture facilities. Visual inspection of concrete structure is carried out before any intended non-destructive test. Visual inspections provide information on the type of concrete damage, their possible causes, and the type of NDT test suitable for further investigation. Visual inspection is carried out by experienced structural engineers who can interpret information from the damages in the concrete structure. The rebound Hammer Test is to be carried out for the evaluation of surface hardness of concrete structures. The surface hardness of concrete is an indication of the strength of concrete. Carbonation Depth Measurement Test is used to determine the depth of concrete affected due to the combined attack of atmospheric carbon dioxide and moisture causing a reduction in the level of alkalinity of concrete, and reinforcement may suffer from corrosion as a result. The covermeter method is used to measure the cover to reinforcement bars in the structure and also the diameter of reinforcement used in existing members. This instrument is used to mark the location of reinforcement bars which may assist in the recovery of core samples without damaging the existing steel reinforcements of the structure. The ultrasonic pulse velocity method need to be used to establish the homogeneity of the concrete, the presence of cracks, voids and other imperfections, changes in the structure of the concrete which may occur with time, and the quality of the concrete in relation to standard requirements. Partial destructive tests is performed on the core samples recovered from the site. The location and the number of test samples required to perform the partial destructive test may be decided based on the test results of RH and UPV. Foundation Monitoring for The size of the footing provided may be verified by means of open excavation and The utilization of Ground Penetrating Radar (GPR) for delineating pipelines and electrical lines.

The approximate coordinates of infrastructure is mentioned 12°51'32.2"N 74°52'00.8"E (2 infrastructures) 12°51'30.5"N 74°51'58.7"E, 12°51'31.4"N 74°51'57.2"E, 12°51'28.5"N 74°52'00.7"E, 12°51'28.4"N 74°51'59.0"E, 12°51'26.6"N 74°51'48.4"E, 2°51'29.6"N 74°51'43.6"E (3 infrastructures) 2°51'23.1"N 74°51'56.4"E, 12°51'22.8"N 74°51'55.1"E (6 nos infrastructure).

The deliverables must be the results of all the tests / scans / experiments / monitoring. it must provide comprehensive data for creating detailed CAD models, including precise reinforcement details. This integrated solution ensures that construction drawings for retrofitting infrastructure can

be developed effectively. The output, suitable for A0 size paper, and design details deliver a comprehensive and visually informative representation of the monitored structure, facilitating seamless retrofitting processes with enhanced accuracy and efficiency.

Warranty: NA

For any technical Clarifications contact:

Dr. Pruthviraj Umesh, Associate Professor, Department of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Srinivasnagar - 575 025, Mangalore, India, Mobile No: 9972797225, pruthviu@nitk.edu.in.