

DOC - 4

**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](mailto:info@nitk.ac.in)

Fax: (0824) 2474033

Website: <http://www.nitk.ac.in>



**NOTICE INVITING QUOTATION**

Notification. No: NITK/CSD/2024/COF/PU-04

Dated: 22-02-2024

<b>Name of Goods</b>	<b>Remote Monitoring of Aquaculture Farm Using AI Technology</b>
<b>Estimated Amount:</b>	<b>₹ 1,95,000/-</b>
<b>Time for Supply of item after release of Purchase order</b>	<b>7 Days</b>
<b>Document Download / Sale Start Date</b>	<b>22-02-2024, 3.00 PM</b>
<b>Clarification Start Date</b>	<b>22-02-2024, 3:00 PM</b>
<b>Clarification End Date</b>	<b>01-03-2024, 3:00 PM</b>
<b>Bid Submission Start Date</b>	<b>22-02-2024, 3:00 PM</b>
<b>Last Date for submission of bids</b>	<b>04-03-2024 before 3.00 PM</b>
<b>Bid Opening Date</b>	<b>04-03-2024, 3:30 PM</b>
<b>Address for Submission of bids</b>	<b>Dr.Pruthviraj U Associate Professor, Dept. WR&amp;OF, Professor In charge (Transdisciplinary R &amp; D) Centre for System Design NITK Surathkal-575025 (M): 9972797225, <a href="mailto:pruthviu@nitk.edu.in">pruthviu@nitk.edu.in</a></b>



**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL**

**DEPARTMENT OF CENTRE FOR SYSTEM DESIGN**

POST SRINIVASNAGAR, MANGALORE – 575 025

Phone: (0824) 2474000

Fax: (0824) 2474033

E- mail: info@nitk.ac.in

Website: <http://www.nitk.ac.in>

Notification No:NITK/CSD/2024/COF/PU-04

Date:22-02-2024

**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.

<b>Name of Goods</b>	<b>Remote Monitoring of Aquaculture Farm Using AI Technology</b>
<b>Estimated Amount:</b>	<b>₹ 1,95,000/-</b>
<b>Time for Supply of item after release of Purchase order</b>	<b>7 Days</b>
<b>Document Download / Sale Start Date</b>	<b>22-02-2024, 3.00 PM</b>
<b>Clarification Start Date</b>	<b>22-02-2024, 3:00 PM</b>
<b>Clarification End Date</b>	<b>01-03-2024, 3:00 PM</b>
<b>Bid Submission Start Date</b>	<b>22-02-2024, 3:00 PM</b>
<b>Last Date for submission of bids</b>	<b>04-03-2024 before 3.00 PM</b>
<b>Bid Opening Date</b>	<b>04-03-2024, 3:30 PM</b>

**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/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.
9. **Liquidated Damages:** 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	: <b>Remote Monitoring of Aquaculture Farm Using AI Technology</b>
Brief Specifications of the Item(s) (Attach Additional Sheet if necessary)	: Attached
Quantity	: 1 Kit (Installation College of Fisheries, Mangaluru)
Any other details / requirement	: N.A
Warranty Period required	: 3 Years
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 (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**

## BRIEF SPECIFICATIONS: **REMOTE MONITORING OF AQUACULTURE FARM USING AI TECHNOLOGY.**

The system involves employing AI technology for the remote monitoring of aquaculture farm units. It incorporates cameras for access control, supported by dedicated hardware. The AI-integrated software ensures efficient surveillance. The package includes a three-year plan with 30 Mbps data speed for seamless GPT-based remote monitoring of the aquaculture farm. The Remote Monitoring of Aquaculture Farm Units Using AI Technology is a comprehensive solution designed for effective surveillance and management of aquaculture facilities. The system integrates cutting-edge technology to ensure seamless monitoring and control. Key features include Advanced artificial intelligence software for realtime analysis and decision-making, Machine learning algorithms for identifying patterns, anomalies, and potential issues and a Customizable alert system for immediate notifications in case of abnormalities.

High-resolution cameras strategically placed for comprehensive coverage with 6 nos 8MP day & night bullet camera with suitable RJ 45 connector & waterproof mounting with AI-enabled NVR with 16 port POE switch with uplink & optic port, Access control features to monitor entry and exit points integrated with 900 human Facial recognition capabilities for enhanced security. The Remote Monitoring of Aquaculture farms using AI Technology must have Robust hardware infrastructure to support continuous data processing, High-performance servers for efficient AI computation, Redundancy measures to ensure system reliability with 6TB SATA HDD, Highspeed internet connectivity with a 30 Mbps data package with suitable outdoor cabling, Secure and encrypted communication protocols for data transmission and a Redundant network architecture for reliability. The system must have GPTbased remote monitoring capabilities for natural language interaction with enhanced communication features for remote management.

Subscription Plan for connectivity must be for three-year subscription for continuous service. with Data Speed: 30 Mbps package for fast and reliable data transmission with Support and Maintenance: Regular updates, patches, and technical support included in the package.

Note: The system is designed to offer a comprehensive and efficient solution for aquaculture farm monitoring, combining advanced AI technology, camera based access control, and high speed internet connectivity. The package includes a three year subscription with a 30 Mbps data speed for optimal performance.

warranty : 3 years

Installation: College of Fisheries, Mangaluru

For any technical clarifications, contact:

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