

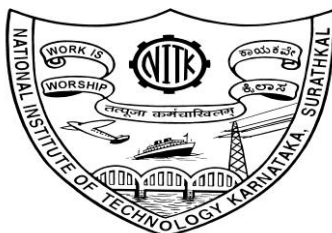
# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

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

Phone: (0824) 2474000.  
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## NOTICE INVITING QUOTATION

Notification. No: NITK/CSD/2023/RKVY-CoF/PU-04

dated:12-06-2023

<b>Name of Goods</b>	<b>Smart Aquaculture Farm Automated Lighting System(SAFALS)</b>
<b>Estimated Amount:</b>	<b>Rs.1.92 Lakh</b>
<b>Time for Supply of item after release of Purchase order</b>	<b>1 Week</b>
<b>Document Download / Sale Start Date</b>	<b>13-06-2023 @03.30PM</b>
<b>Clarification Start Date</b>	<b>13-06-2023 @03.30PM</b>
<b>Clarification End Date</b>	<b>27-06-2023 @03.30 PM</b>
<b>Bid Submission Start Date</b>	<b>13-06-2023 @03.30PM</b>
<b>Last Date for submission of bids</b>	<b>27-06-2023 before 03.30 PM</b>
<b>Bid Opening Date</b>	<b>28-06-2023 @03.30 PM</b>
<b>Address for Submission of bids</b>	<b>Dr.Pruthviraj U, Asst Professor Centre for System Design NITK Surathkal – 575025 (M): 9972797225, <a href="mailto:pruthviu@nitk.edu.in">pruthviu@nitk.edu.in</a></b>



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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/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 ]

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Item(s) Name to be Procured	: Smart Aquaculture Farm Automated Lighting System(SAFALS)
Brief Specifications of the Item(s) (Attach Additional Sheet if necessary)	: <b>Attached in Annexure I</b>
Quantity	: 2 Nos
Any other details / requirement	: Nil
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]

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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**

## **Specification: SMART AQUACULTURE FARM AUTOMATED LIGHTING SYSTEM (SAFALS)**

Quantity : 2 Nos

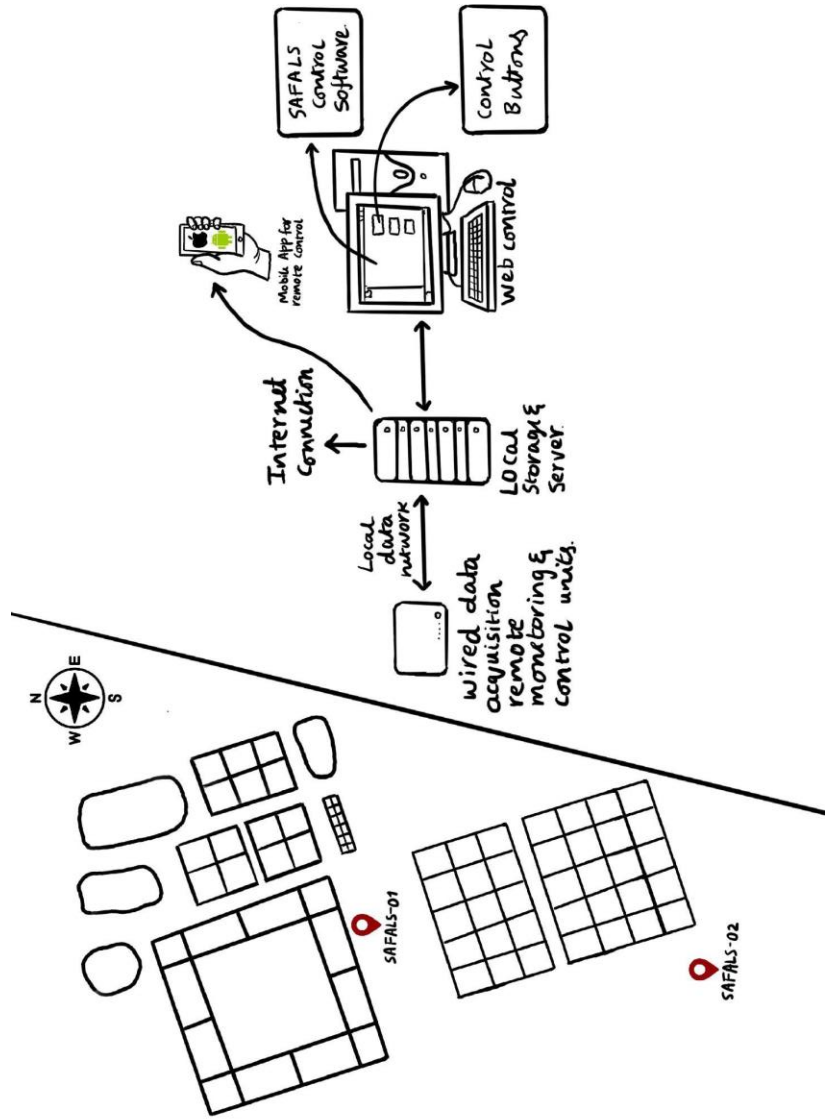
SMART AQUACULTURE FARM AUTOMATED LIGHTING SYSTEM (SAFALS) must involve integrating various components and technologies to enable remote monitoring, control, and automation of Mast Lighting at an Aquaculture farm at the College of Fisheries, Mangaluru.

SAFALS must be remotely monitored and controlled using a centralized management platform. It must allow operators to monitor the performance of the lights, receive real-time alerts for faults or malfunctions, and adjust settings remotely. Monitoring can be displayed and controlled by using a compact PC with the minimum spec of 13 10th, 4 GB RAM, 1 TB HDD, 19.5" Monitor, WIFI + Bluetooth, and HDMI with VESA mount. SAFALS must be designed to be energy-efficient by utilizing LED lighting technology (minimum 200W-warm white) and incorporating dimming capabilities. SAFALS must be integrated into larger smart city infrastructures for further development. They must be connected to wired networks, enabling seamless communication and data exchange. SAFALS must be capable of integration with other smart devices, such as cameras or sensors, allowing for data fusion and more comprehensive monitoring and management of aquaculture farms. SAFALS MUST implement appropriate security measures to protect the lighting systems and the control system from unauthorized access. and Use secure authentication protocols, encrypted communication, and access control mechanisms to ensure the system's integrity and prevent tampering. User Interface and Control must be implemented onto SAFALS with a user interface, such as a web-based dashboard and mobile app, to provide users with control over the lights. This interface should allow manual control, scheduling, and customization of lighting parameters and Ensure the interface provides real-time status updates and notifications for easy. SAFALS must have wired Connectivity for Communication: with the Remote control & monitoring & station using an appropriate communication protocol between the lighting control system and the mast. Common protocols may include MQTT, CoAP, or HTTP, which facilitate data exchange and control commands.

### **For any technical Clarifications contact:**

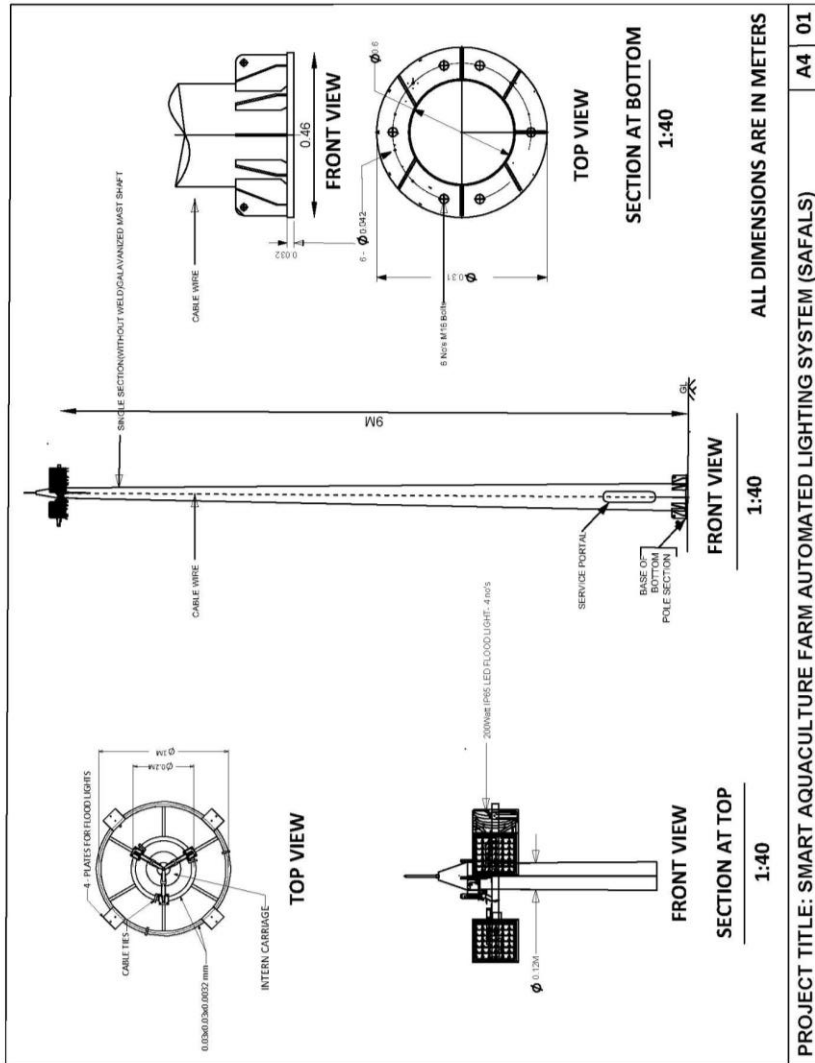
Dr. Pruthviraj Umesh, Assistant Professor, Department of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Srinivasnagar - 575 025, Mangalore, India, Mobile No: 9972797225, pruthviu@nitk.edu.in.

Warranty : **3 Years**



concept diagram: SMART AQUACULTURE FARM AUTOMATED LIGHTING SYSTEM (SAFALS)





tentative CAD for SMART AQUACULTURE FARM AUTOMATED LIGHTING SYSTEM (SAFALS)