



NCCR

**Expression of Interest (EoI)
For
Installation, Integration, Commissioning, Data Management and
Dashboard Development for Autonomous Beach Monitoring
System (ABMS) at Five Coastal Locations**

**राष्ट्रीय तटीय अनुसंधान केन्द्र (एनसीसीआर)
National Centre for Coastal Research (NCCR)
पृथ्वी विज्ञान मंत्रालय
Ministry of Earth Sciences,
भारत सरकार
Government of India,
2nd Floor, NIOT Campus,
Pallikaranai, Chennai - 600100**

EOI DETAILS

Date of commencement of downloading of EOI Document	05-03-2026
Last date and time for submission of EOI Documents	20.03.2026
Date of the presentation	Will be intimated to the bidders/firm
Address for the presentation of the Proposed Implementation Approach	National Centre for Coastal Research (NCCR), Ministry of Earth Sciences, 2nd Floor, NIOT Campus, Pallikarani, Chennai – 600 100, Tamil Nadu
Mode of Submission	EOI documents shall be submitted offline
If there are any queries, Bidders/firm can send mail to -	yram@nccr.gov.in ; ssudheer@nccr.gov.in

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भारत सरकार |Government of India

2nd Floor, NIOT Campus, Velachery–Tambaram Main Road, Pallikaranai, Chennai-600 100

EXPRESSION OF INTEREST (EOI)

Date :05-03-2026

Installation, Integration, Commissioning, Data Management and Dashboard Development for Autonomous Beach Monitoring System (ABMS) at Five Coastal Locations

1. Background

The National Centre for Coastal Research (NCCR), an attached office of the Ministry of Earth Sciences, Government of India, is engaged in scientific research and management of India's coastal and marine environment. NCCR plays a significant role in shoreline management through the development of Shoreline Management Plans (SMP) to address coastal erosion and support sustainable coastal infrastructure planning. The Centre also undertakes comprehensive studies on marine pollution, including monitoring of coastal water quality, marine litter, and oil spill impacts to support environmental protection efforts. In addition, NCCR prepares Coastal Vulnerability assessments to identify areas at risk from sea-level rise, storm surges, and extreme events. Through research on coastal processes such as sediment transport, wave dynamics, and shoreline change, NCCR promotes ecosystem-based coastal management and sustainable development while ensuring the protection of fragile coastal and marine ecosystems.

As part of its coastal monitoring initiatives, NCCR proposes to operationalize an Autonomous Beach Monitoring System (ABMS) at five coastal locations using video-based observation techniques for:

- Shoreline position and its changes
- Inter-tidal and sub-tidal bathymetry (near shore bathymetry)
- Bathymetry/beach volumes and changes
- Mapping of nearshore bar evolution and sediment motion patterns
- Nearshore currents along with rip currents
- Wave characteristics like wave height, period, angle and wave run-up

Field imaging hardware for the ABMS has already been procured by NCCR, which includes the Optical device with Outdoor IP Network enclosures, Floor Mount Outdoor weather-proof rack, 8-port POE switches, Cat6 Outdoor cable.

NCCR now intends to identify the competent agencies for the installation, integration, commissioning, calibration, data transmission, processing, and dashboard development of the ABMS at the identified five locations.

Accordingly, Expression of Interest (EOI) is invited from experienced organizations / vendors / agencies fulfilling the prescribed requirements. Interested parties may submit their *Expression of Interest*, along with supporting documents, addressed to: The Director, NCCR, 2nd floor, NIOT campus, Velachery–Tambaram Main Road, Pallikaranai, Chennai-600 100.

The EOI shall be submitted in a sealed envelope on or before 20.03.2026 by registered post.

2. SCOPE OF WORK

A. DASHBOARD

- a) Installation, integration, commissioning, operationalization of the Autonomous Beach Monitoring System (ABMS) at five coastal locations using NCCR-procured imaging hardware (Details of the hardware attached in annexure 1)
- b) Ensuring continuous image/data capture with local buffering and temporary storage at site.
- c) Establishment of reliable internet connectivity at each site and enabling automated real-time (preferred) data transmission to the central server at NCCR with an maximum time delay of 6 hours.
- d) Supply, installation, and configuration of a central server system at NCCR with adequate storage, processing, and networking capacity to handle multi-location data.
- e) Provision of processing software capable of deriving coastal parameters including:
 - Shoreline position and temporal changes
 - Intertidal and nearshore bathymetry
 - Beach volume and morphological changes
 - Nearshore bar evolution and sediment transport patterns
 - Nearshore and rip currents
 - Wave parameters (height, period, direction/angle, run-up)
- f) Software capability for spatial and temporal analysis, visualization, archival of raw and processed datasets.
- g) Development and deployment of a web-based dashboard for:
 - Live imagery visualization
 - Archived imagery access
 - Processed coastal parameter display.
 - Time-series analysis outputs

h) Provision and installation of suitable display hardware at NCCR for dashboard monitoring.

i) Supply of complete source code of processing software and enabling independent operation by NCCR, including end-to-end training.

B. Installation, Operation and Maintenance

a) Complete site-level deployment including:

- Supply and transportation of equipment.
- Erection of suitable mounting poles/towers
- Execution of all fixing works
- Cabling, wiring, and installation activities
- Ensuring maximum coastal coverage on either side of installation location

b) Calibration of the system in accordance with acceptable oceanographic survey standards to ensure required accuracy of derived outputs.

c) Post-installation system validation and submission of detailed validation report to NCCR.

Note: Detailed scope, SLA and commercial terms shall be finalized at tender stage

3. Vendor Qualification Criteria

Interested agencies shall meet the following eligibility and capability requirements:

A. Experience

- The agency must possess a minimum of five (5) years of experience in executing projects of a similar nature for government organizations. Suitable proofs like supply orders (or) completion certificates (or) performance certificates from consignees/end-users are to be provided.
- Demonstrated experience in coastal monitoring domains is essential.

B. Technical Capability

The agency must demonstrate proven expertise in:

- Installation and commissioning of IP-based monitoring systems
- Deployment of systems in outdoor coastal environments
- Implementation of data acquisition systems
- Establishment of centralized monitoring platforms

C. OEM Authorization for processed software and display

The agency must be an owner/authorized dealer/system integrator of relevant Original Equipment Manufacturers (OEMs). Authorization letters must be provided for Data acquisition and processing systems/software/hardware in case of OEM's.

D. Deployment Capability

The agency must demonstrate capability for:

- Coastal field installation
- Hardware integration
- System calibration and commissioning
- The agency must be capable of providing technical training to end users and enabling independent system operation by NCCR personnel.

4. Submission of Expression of Interest (EOI)

- A. The interested agencies are required to submit their EoI in a sealed cover along with the particulars relating to the qualifying requirements and all requisite documents, in hard copies by Registered Post to – The Director, National Centre for Coastal Research, 2nd Floor, NIOT Campus, Velachery - Tambaram Main Road, Chennai 600 100, superscribing in the envelope “Expression of Interest for Installation, Integration, Commissioning, Data Management and Dashboard Development for Autonomous Beach Monitoring System (ABMS) at Five Coastal Locations. FAX / Email offers shall be treated invalid and liable for rejection.
- B. EoI reaching after 20.03.2026 shall not be considered under any circumstances. Agencies are not permitted to modify, substitute, or withdraw proposals after its submission.
- C. The submission of EoI shall include the following:
 - **Company Profile:** A detailed profile of the organization, including Organizational background, Core areas of expertise, Relevant business activities, Years of Experience, Key technical personnel.
 - **Experience Details:** Information on previous projects of a similar nature for government organizations, particularly in: Coastal monitoring systems, Video analytics. Supporting documents such as work orders, completion certificates, and performance credentials should be included.
 - **Technical Capability:** Description of the agency’s technical strengths including: System installation capability, Coastal deployment experience, Data acquisition and monitoring solutions, Integration, and commissioning expertise.
 - **OEM Authorization:** Valid authorization letters from relevant Original Equipment Manufacturers (OEMs), confirming the agency’s status as an authorized dealer, partner, or system integrator processing software and Display.
 - **Proposed Implementation Approach:** A brief outline describing the understanding of project requirements, Deployment methodology, Integration approach, and Operational strategy.
 - **Declaration form:** declaration form as attached in Annexure B.
 - Details of the firm/bidder as per Annexure C.

5. General Conditions

- a) National Centre for Coastal Research (NCCR) reserves the right to accept or reject any or all EOIs without assigning any reason thereof.
- b) Submission of EOI does not guarantee shortlisting or award of work.
- c) The EOI shall not contain any financial quotation or commercial offer. Any such submission shall be rejected.
- d) This EOI does not constitute an offer or invitation to enter a contract. No contractual obligation shall arise from this process.
- e) NCCR reserves the right to modify, amend, or cancel this EOI at any stage without assigning any reason.
- f) Information shared by NCCR shall be treated as confidential.
- g) The agency must not have been blacklisted/debarred by any Government authority in the last three years.
- h) The EOI submission shall remain valid for 120 days from the last date of submission.
- i) Based on the proposals received, NCCR may, at its discretion, invite the participating agencies for a technical presentation, interaction meeting, or discussion to further understand their technical capability, deployment methodology, and suitability for the proposed ABMS project for physical meeting at NCCR. Such interaction shall be for clarification and technical understanding purposes only and shall not constitute a commitment for award of work or shortlisting. Agencies shall not be entitled to claim any costs or expenses incurred in connection with such meetings or presentations. The date of physical meeting will be intimated to the bidders.

6. Project Duration

The project timeline, including the implementation schedule and operational phases, will be finalized and communicated during the tender stage, based on the project scope and requirements.

7. Outcome

The primary objective of this EOI process is to identify technically competent and experienced agencies capable of participating in the upcoming tender process for Installation, Integration, Commissioning, Data Management and Dashboard Development for Autonomous Beach Monitoring System (ABMS) at Five Coastal Locations.

NCCR reserves the right to adopt Open Tender, Limited Tender, or GeM-based procurement for the subsequent stage based on administrative approval and prevailing Government procurement rules.

Participation in this EOI process shall not confer any right upon any agency to claim invitation, shortlisting, or award of work.

Annexure A

Details of the Field imaging hardware for the ABMS, which is already procured by NCCR, are as follows:

	Make	Model
1. Optical device with Outdoor IP Network enclosures (10 Qty),	MOBOTIX	M73
2. Floor Mount Outdoor weather-proof rack (5 Nos),	NETRACK	NETRACK
4. Micro SD card 256 GB (10 Nos)	CPPLUS	CP-NM256
3. 8-port POE switches (10 Nos)	SYROTECH	SY8000P-2T-150W
5. Cat6 Outdoor cable (305 m)	DIGISOL	

Annexure B

The following declaration shall be submitted by the interested agency at the time of submission of the EoI.

DECLARATION I UNDERTAKING:

"DECLARATION CERTIFICATE

I / We have not been suspended / delisted / blacklisted by Central / State Govt. / Ministry / Department / Public Sector Undertaking / GeM/IRDAI /SEBI /Autonomous Body / Financial Institution / Court.

I / We hereby undertake and confirm that I / We have understood the scope of work properly and shall carry out the work as mentioned in this EoI.

Signature of the Authorised Signatory

with Seal

Annexure C

Details of the Bidder/ Firm:

SI No	Particulars	Details
	Company Name	
	Registered Address	
	Contact Details	
	Year of Incorporation*	
	Legal Status	
	GST Number*	
	PAN*	
	Branch Office Details if any	
	Authorized Signatory	
	Turnover (Last 3 Years)	

*Suitable supporting document should be provided