

ODISHA SPACE APPLICATIONS CENTRE (ORSAC)
Dept. Of Science & Technology, Govt. of O d i s h a
Plot No.45/48(P), Jayadev Vihar, Near Gopabandhu Academy of Administration
Unit-16, Bhubaneswar-751 023

Advt. No.04/2023

Notice for Inviting Expression of Interest (EOI)
for

“Engaging reputed Geospatial & IT Companies /Firms for generation of Large-scale GIS Layers/ Databases from Very High-Resolution Satellite Images using latest State of Art Technologies like Artificial Intelligence (AI) & Machine Learning (ML) for the State of Odisha”

Odisha Space Applications Centre (ORSAC) invites Expression of Interest (EOI) from reputed, established and reliable Geospatial & IT companies in connection with the **“Generation of Large-scale GIS Layers / Databases from Very High-Resolution Satellite Images using latest State of Art Technologies like Artificial Intelligence (AI) & Machine Learning (ML) for the State of Odisha”**.

While the **EOI** responses may contain indicative commercially relevant information, it will not be construed to be a commercial bid. Eligible EOI Bidders will be called for their presentation on proposed workflow / system solution fulfilling the objectives and scopes of the project.

At a later stage, **Request for proposal (RFP)** will be issued to all eligible **EOI** Bidders.

The deadline for submission of the EOI bid is **10.30 Hrs. (IST) on 13th September, 2023**.

Expression of Interest shall be submitted in two copies, one Original and other copy of the Original in sealed envelope clearly super scribing on top of envelope **“Generation of Large-scale GIS Layers / Databases from Very High-Resolution Satellite Images using latest State of Art Technologies like Artificial Intelligence (AI) & Machine Learning (ML) for the State of Odisha”**. Original EOI / Copy of the Original, Name of the Firm, EOI No., Bid Due Date & Time shall also be clearly written on the sealed envelope. Sealed envelope containing EOI shall be submitted at the following address:

Scientist ‘E’ & Administrative cum Accounts Officer,
Odisha Space Applications Centre,
Plot No: 45/48(P), Near Gopabandhu Academy of Administration,
Jaydev Vihar, Unit-16, Bhubaneswar, Odisha, India, PIN-751023.
Tel No: 0674-2300733, Fax No: 0674-2300681
Email: orsac.od@nic.in, orsac2012@gmail.com
Website: www.orsac.gov.in, <https://orsacgeoict.in>

Scientist ‘E’ & Administrative cum Accounts Officer

1. BACKGROUND:

Odisha Space Applications Centre (ORSAC) is the Nodal Agency of the State to implement and execute the Projects in the field of Remote Sensing, GIS, GPS/DGPS, ETS and Satellite Communication and also the Nodal mapping agency to cater to the mapping needs of all the line departments in the state of Odisha.

Odisha Space Applications Centre (ORSAC) has recently procured 30 cm High-definition satellite Imagery for the entire state and 15cm High-definition satellite Imagery for all the ULBs in the state of Odisha. ORSAC for the year 2021-2022 and High-Resolution Satellite Imagery (HRSI) Data of native resolution 50 cm for the year 2023 Data.

In view of the above investments on HRSI Imageries, ORSAC is planning to generate state-wide Large-scale GIS Layers / Databases of Natural Resources and Infrastructures from 30 /50 cm and 15 cm High-Definition & High-Resolution Satellite Imageries using Artificial Intelligence (AI) & Machine Learning (ML) Technologies.

2. OBJECTIVES:

The primary objectives of this EOI are as follows:

- a. To provide a fillip to the development of new and innovative AI/ML Solutions that directly impact quality and production time for generating large scale GIS Databases using very High-Resolution Satellite Imageries.
- b. The AI/ML Solutions should be designed in a maximum period of 6 months from the date of announcement of Selected Bidder.
- c. To create an AI/ML production platform which will be used for next 4-5 years inside ORSAC Campus to create GIS databases using very High-Resolution Satellite Imageries for the entire State in every year.
- d. To make available a large body of pilot-tested and proven AI/ML Solutions that can be adopted by ORSAC for their Future GIS databases generation as per their specific needs
- e. The solutions should be amenable to replication and scale-up upon successful demonstration of pilot.
- f. The technology proposed to be used should be general and non-proprietary wherever possible. Reasons for choice of technology should be clearly specified as part of the proposal
- g. To promote a culture of innovation within the Geospatial Industry.
- h. The Source Code will be the property of ORSAC after completion of the Project.

3. SCOPE OF WORK:

To develop an innovative AI/ML production Solutions that directly impact quality and production time for generating large scale GIS databases using very High-Resolution Satellite Imagery.

Input Source/Imagery:

- High resolution Satellite Imagery: 0.15 meter to 0.5 meter (GSD)

- Feature List:

- Road network
- Buildings
- Water bodies (lakes/ponds)
- River Network
- Forest
- Mining
- Agriculture
- Coastline
- Aqua Culture/Ponds
- Sand areas
- Banana plantations
- Coconut Plantations
- Palm Plantations

- Pilot Areas:

- **Urban area** – 25 Sqkm of 15cm HD Satellite Imagery
- **Non-Urban Area** - 100 Sq.km of 30 / 50 cm HD /HR Satellite Imagery
- **Mining area** – 5 Sq. km of 30/50 cm Drone Imagery

- Complete Infrastructure support will be provided within ORSAC campus.
- The Vendors are to bring their machines to support AI/ML based analysis.
- Empanelment to be for 3 years

4. EOI SCHEDULE:

Following schedule will be followed for EOI and RFP:

- Open invitation for EOI is being issued to invite all prospective bidder(s)
- Interested bidders should submit their EOI bids along with credentials, proposed workflow/solutions, and other details.
- ORSAC will invite eligible bidders for presentation of proposed workflow/solutions.
- RFP will be prepared and issued to the eligible bidders of the EOI.

Tentative schedule of activities:

Activity	Date
Issue of EOI.	18 th August, 2023
Pre-Bid Request through email.	24 th August, 2023, 3.00 P.M
Pre-Bid Meeting through VC on request through email (orsac2012@gmail.com)	25 th August, 2023
Pre-Bid Compliance publication through ORSAC Portal.	28 th August, 2023, 5.00 P.M
Submission of EOI	13 th September, 2023 - 5.30 P.M
Presentation of proposed Workflow/Solutions	24 th September, 2023, 11.00 A.M onwards.
Notification to Eligible Bidders.	30 th September, 2023
Preparation and issue of RFP to the selected bidders of EOI.	7 th October, 2023.

Scientist 'E' & Administrative cum Accounts Officer

-----End of EOI-----