



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान पुणे
INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH PUNE

IISER/PUR/0261/26

PREBID CLARIFICATION ON GeM bid Number - GEM/2026/B/7794669

आइटम विवरण- ब्रॉडबैंड सीस्मोमीटर और डेटा एक्विजिशन सिस्टम की खरीद

Item Description- Procurement of Broadband Seismometer and Data Acquisition System

ब्रॉडबैंड सीस्मोमीटर और डेटा एक्विजिशन सिस्टम की खरीद के लिए 23/07/2026 को इंस्टीट्यूट की वेबसाइट www.iiserpune.ac.in और GeM पोर्टल पर प्रकाशित ओपन टेंडर देखें।

Refer to an open tender published on the Institute website www.iiserpune.ac.in and on the GeM Portal on 23/07/2026 for procurement of Broadband Seismometer and Data Acquisition System.

प्री-बिड मीटिंग 30/07/2026 को शाम 3.00 बजे आयोजित की गई और बैठक का कार्यवृत्त निम्नानुसार है:

Pre-Bid meeting was held on 30/07/2026 at 3.00 PM and minutes of meeting is as under:

प्रारंभ में, समिति ने सभी सदस्यों और संभावित बोलीदाताओं के प्रतिनिधियों का स्वागत किया और सामान्य तौर पर निविदा के दायरे की जानकारी दी और उसके बाद उप कुलसचिव (भंडारण एवं क्रय) से बोली लगाने वालों को निविदा की मुख्य विशेषताओं के बारे में जानकारी देने का अनुरोध किया।

At the outset, the committee welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the tender and thereafter requested Deputy Registrar (S&P) to brief the bidders on the salient features of the tender.

उपस्थित प्रतिनिधि दिए गए उत्तरों से संतुष्ट थे और यह सूचित किया गया था कि प्री-बिड कॉन्फ्रेंस के दौरान की गई चर्चा के अनुसार दिए गए सुधार / परिवर्धन / स्पष्टीकरण को IISER पुणे की वेबसाइट पर होस्ट किया जाएगा और सभी संभावित बोलीदाताओं को बोली दस्तावेजों में निर्धारित अनुसार अपनी बोली जमा करने से पहले प्री-बिड सम्मेलन की कार्यवाही का संज्ञान लेना आवश्यक है।

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

हमारी आईआईएसईआर वेबसाइट www.iiserpune.ac.in और GeM portal पर जारी नोटिस के अन्य नियम और शर्तें अपरिवर्तित रहेंगी। इस संबंध में और कोई पत्राचार नहीं किया जाएगा।

The other terms & conditions of the notice issued on our IISER website www.iiserpune.ac.in and GeM portal will remain unchanged. No more correspondence in this regard will be entertained.

बैठक अध्यक्ष के धन्यवाद प्रस्ताव के साथ समाप्त हुई।

The meeting ended with vote of thanks to the Chair.

उप कुलसचिव (भंडारण एवं क्रय)
Deputy Registrar (S&P)

TECHNICAL AND COMMERCIAL QUERIES AND CLARIFICATION**PRE-BID MEETING FOR PROCUREMENT OF BROADBAND SEISMOMETER AND DATA ACQUISITION SYSTEM**

S. No.	Query/Clarification Sought	Clarification / Amendment
1	<u>Section A, Clause 4</u> The tender requires a flat response from 360 seconds to 50 Hz. Kindly permit broadband sensors having flat velocity response from 120 seconds or longer to at least 50 Hz.	<u>Section A, Clause 4</u> This is a critical specification of the desired equipment and cannot be amended.
2	<u>Section A, Clause 8</u> The tender requires self-noise below NLNM from 200 seconds to 10 Hz. Kindly permit sensors having self-noise below NLNM from 40 seconds or lower period to 10 Hz, supported by the OEM noise curve.	<u>Section A, Clause 8</u> This is a critical specification of the desired equipment and cannot be amended.
3	<u>Section A, Clause 9</u> The tender requires 10–36 V DC input. Kindly permit a sensor operating from 10–24 V DC which, provided it is compatible with the specified 12 V DC station power system. (And as per Recorder Input power is only 10- 24 volt from which the sensor can get the power)	<u>Section A, Clause 9:</u> 10-36 V is the complete DC input voltage range. A sensor operating at any input voltage within this range is allowed.
4	<u>Section A, Clause 13</u> Kindly clarify whether internal tilt indication, an operating tilt range of at least $\pm 5^\circ$, field-adjustable levelling and remotely controlled automatic mass centering will be accepted.	<u>Section A, Clause 13</u> This clause has been modified to include manual levelling using supplied accessories.
5	<u>Section C, Clauses 5–10</u> Kindly clarify the required modem type, cellular/VSAT configuration, SIM requirements, VSAT-terminal scope, service-subscription period, bandwidth, solar-panel capacity, charge-controller rating, telemetry backup duration, lightning-protection quantity and chemical-earthing scope.	<u>Section C, Clauses 5–10</u> Please refer to the detailed technical specifications appended as Annexure III

6	<u>Delivery period GeM Bid Document – Page No. 6</u> These are highly sensitive and calibrated instruments manufactured to meet international standards. The OEM normally initiates manufacturing only after receipt of a firm confirmed order, further the sensors need to go through lengthy testing and calibration process. Therefore, we kindly request you to consider a delivery period of 120 days from the date of issue of the acceptable Purchase Order (PO) for the complete supply of instruments along with all accessories at IISER.	<u>Delivery period GeM Bid Document – Page No. 6</u> Delivery period of 120 days from the date of issue of PO is acceptable.
7	<u>Section A, Clause 7:</u> Bidder requested to kindly amend the operating tilt range to $\geq 1.5^\circ$. This is an installation parameter and does not affect the seismic performance of the instrument.	<u>Section A, Clause 7:</u> Tender specifications prevails.
8	<u>Section A, Clause 13:</u> Bidder request that this requirement be removed, as our sensors can be easily installed and accurately aligned & levelled in a posthole at shallow depth using the installation accessories supplied with the sensor.	<u>Section A, Clause 13:</u> This clause has been modified to include manual levelling using supplied accessories.
9	<u>Section C, Clause 6:</u> Since a solar panel and charge controller have been requested as part of the supply, an AC-DC battery charger may not be required. We therefore request that the battery charger be removed from the scope of supply.	<u>Section C, Clause 6:</u> This clause has been removed.
10	<u>Section C, Clause 8</u> Kindly provide the technical specifications for the solar panel and charge controller.	<u>Section C, Clause 8</u> Please refer to the detailed technical specifications appended as Annexure III
11	<u>Section C, Clause 9:</u> Kindly provide the technical specifications for the modem.	<u>Section C, Clause 9:</u> This clause has been removed.

12	<u>Section C, Clause 10</u> Since a modem has been specified in the tender, a separate telemetry system may not be required. We therefore request that this requirement be removed from the scope of supply or clarified accordingly.	<u>Section C, Clause 10</u> This clause has been removed.
13	<u>Installation & Commissioning</u> Please confirm whether the field installation & commission will be the scope of bidder. If so, please provide the installation site locations.	<u>Installation & Commissioning</u> Please refer to the detailed technical specifications appended as Annexure III
14	<u>Section B, Clause 11</u> Power consumption less than 1.7 watts 12V DC for recording 3 channels at 100sps, continuous mode data acquisition with GNSS connected and Ethernet output.	<u>Section B, Clause 11</u> This clause has been amended.
15	<u>Section B, Clause 12</u> LCD-display/LED indicators should be provided in-built or external for indicating data acquisition status, memory used / available, GPS status etc.	<u>Section B, Clause 12</u> This clause has been amended.
16	<u>Section C, Clause 6</u> Please Specify Charger operating voltage.	<u>Section C, Clause 6:</u> This clause has been removed.
17	<u>Section C, Clause 8</u> Please Specify the capacity of Solar Panel along with Charge Controller.	<u>Section C, Clause 8</u> This clause has been amended.
18	<u>Section C, Clause 9</u> Please note that SIM card with Data Plan should be provided by Purchaser/ User.	<u>Section C, Clause 9</u> This clause has been removed.
19	<u>Section C, Clause 10</u> GPRS Modem is part of Telemetry system; Please specify the power backup requirement.	<u>Section C, Clause 8</u> This clause has been removed.

Technical Specifications of Broadband Seismometer and Data Acquisition System

Number of units required (Seismometer + Digitizer+ Accessories): 2

A. Broadband Seismometer

S.No.	Parameter	Values/Description	Marks assigned
Technology			
1.	Configuration	Symmetric triaxial OR orthogonal triaxial	5
2.	Sensor type	Force feedback (force-balance) velocity sensor	5
3.	Mass centering	Remotely controlled automatic mass centering	5
Performance			
4.	Bandwidth/frequency response	Flat response (within+/-3dB) to ground velocity in the range of 360 s to 50 Hz	10
5.	Velocity sensitivity	≥ 1500 V/m/s	10
6.	Dynamic Range	>160 dB at 1 Hz	
7.	Operating tilt range	$>2^0$	5
8.	Self-Noise below NLNM	200 s to 10 Hz (Test reports of the sensor noise over the full pass band should be provided)	10
Power			
9.	Power supply voltage	10-36V DC input	5
10.	Power consumption	< 1W at 12V DC	5
11.	Protection	Reverse-voltage and over-voltage protection	5
Physical & Environmental			
12.	Design/installation type	Posthole	5
13.	Alignment & levelling	Internal automated levelling OR manual levelling using supplied accessory	5
14.	Operating Temperature range	-20°C to +60°C	5
15.	Humidity	up to 100% RH	5
16.	Ingress Protection	IP68 rating	5
17.	Field carry case	Rugged field carry case should be provided by the OEM.	5
Total Marks			100

B. Digitizer/Data Acquisition System (Unit must be compatible with the Seismometer)

S.No.	Parameter	Description	Marks assigned
1.	Number of Channels	Three	5
2.	ADC	Three independent digitisers (24-bit minimum), one for each channel	5
3.	Dynamic Range	135dB or higher at 100sps	5
4.	Hardware Gain	Multiple user selectable	5
5.	Recording Mode	continuous, event trigger (User selectable)	5
6.	Sampling rate	User selectable from 1 to 1000 sps per channel Simultaneous recording at different sampling rates in different streams (two or more), both in continuous and trigger modes.	5
7.	Timing System	Temperature compensated and digitally regulated quartz clock.	5
8.	GPS receiver	Built in GPS receiver to output satellite time singles for synchronizing the internal clock of the digitizer with time accuracy better than +10µsec when GPS is locked. Antenna cable length 20m.	5
9.	Data Storage	i RAM 16 MB or more ii. User removable Recording media of capacity 32 GB or more iii. Hot swappable recording media iv. One set of spare recording media of same capacity for each DAS to be supplied v. The recording media card should be rugged and industrial grade suitable to withstand extreme temperature variations. vi. The bidder should attach the data sheet of the recording media to be supplied along with the bid documents.	5
10.	Recording format	i. Standard seismic data format compatible to Windows and Linux platforms with proven compression technique. ii. Utilities to convert raw data to miniseed, SAC, SEISAN and ASCII formats to be supplied.	5
11.	Power	i. Supply voltage 10-24V DC. ii. Power consumption less than 1.8 watts 12V DC for recording 3 channels at 100sps, continuous mode data acquisition iii. Supply power should be isolated from the signal ground. iv. Reverse voltage protection v. Low battery voltage protection vi. DAS power cable at least 3m length to be supplied vii. DAS should resume data acquisition automatically when the power is restored after disruption.	5
12.	DAS Firmware features	i. Web browsing support/ communication over TCP/ IP protocol. ii. Should support off-the- shelf communication equipment iv. LCD-display/LED indicators should be provided in-built or external for indicating battery voltage, data acquisition status, memory used / available, GPS status etc. v. The DAS should be capable of recording on the local storage media as well as support real-time data telemetry to a	5

		central site through VSAT telemetry network simultaneously. vi. DAS should have the facility to retrieve old data in the storage media from Central Recording Station manually through VSAT network.	
Total Marks			60

C. Accessories including Power Supply and Telemetry

1.	Power cable (3m)	5
2.	Ethernet cable (3m)	5
3.	Sensor connecting cable (10/20m)	5
4.	GNSS receiver/antenna with mounting bracket and cable (20m)	5
5.	Solar panel (200 W, monocrystalline)	5
6.	Charge controller (20 A, MPPT)	5
7.	Battery (Lithium, 12V, 100 Ah)	10
Total Marks		40

TOTAL MARKS (A+B+C): 200

Minimum qualifying marks to be 170 out of 200 (85%), with at least 95 out of 100 in Section A.

NOTE:

- i. FIELD INSTALLATION AND COMMISSIONING IS REQUIRED FOR AT LEAST ONE LOCATION. TENTATIVE LOCATIONS WILL BE IN MAHARASHTRA AND JHARKHAND.