

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित सैक्टर 81,नॉलेज सिटी,प॰ ओ॰ मनोली, एस॰ ए॰ एस॰ नगर,मोहाली, पंजाब 140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI (Established by Ministry of Human Resource Development, Govt. of India) Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab PAN No. - AAAAI1781K GST: 03AAAAI1781K2ZS

Phone : +91-172-2240086 & 2240121 • Fax : +91-172-2240124, 2240266 • http://www.iisermohali.ac.in • Email: stores@iisermohali.ac.in

CPPP/Institute Website

IISERM (1083-2)18/19-Pur

Dated : 11.02.2019

NOTICE INVITING E-TENDER

Online tenders are invited on behalf of Director, IISER Mohali in <u>TWO BID SYSTEM</u> for Supply and installation of Meteorological Station with Tripod, mast and independent power supply (Solar Panel & Battery) for field deployment including sensors from reputed companies/firms/ individuals/ societies etc. those are in the similar business at CPPP i.e. https://eprocure.gov.in/eprocure/app. Tender documents may please be downloaded from the Eprocurement portal website https://eprocure.gov.in/eprocure/app& Institute website www.iisermohali.ac.in.

> -sd-(Mukesh Kumar) Assistant Registrar (S&P)



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित सैक्टर 81,नॉलेज सिटी,प॰ ओ॰ मनोली, एस॰ ए॰ एस॰ नगर,मोहाली, पंजाब 140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI (Established by Ministry of Human Resource Development, Govt. of India) Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab

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E-TENDER NOTICE

Tender Ref.- IISERM(1083-2)18/19-Pur

Dated :- 11th February, 2019

Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	11 th February, 2019	6:00pm
2.	Tender Document download start Date & Time	11 th February, 2019	6:00pm
3.	Bid Submission start Date & Time	11 th February, 2019	6:00pm
4.	Bid Submission End date and Time	04 th March, 2019	Upto 11:00am
5.	Tender opening Date and Time	05 th March, 2019	At 11.30 am

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for following item(s) from the original manufacturer/supplier at CPPP i.e. **https://eprocure.gov.in/eprocure/app**. Tender documents may please be downloaded from the E-procurement portal website **https://eprocure.gov.in/eprocure/app** & Institute website **www.iisermohali.ac.in**.Tender fee in shape of DD/Banker Cheque of Rs 590/- (Non-refundable) and EMD of Rs.25000/- should be submitted by DD /Banker Cheque/FDR/ Bank Guarantee in favour of the Registrar, IISER Mohali payable at Mohali. However, scanned copy of the both tender fee and EMD should be upload on website along with technical bid part. The hard copy of the same in original to be send to the address mentioned below duly superscribing the supply/work name and reference/ tender ID on the envelope and same must reach before opening the bid and if not received within due date the bid will be rejected summarily.

The Original EMD and Tender Fee should be sent to:

Assistant Registrar (S&P) Indian Institute of Science Education and Research, Mohali Sector 81, SAS Nagar, Mohali, Punjab, India, Pin: 140306

Non-receipt of original EMD and Tender Fee will lead to rejection of tender.

<u>I</u> S. No.	Item Details: No. Details of Specifications of the Stores			
	Supply and installation of Meteorological Station with Tripod. mast and			
	independent power supply (Solar Panel & Battery) for field deployment including			
	<u>sensors</u>			
	Technical Specifications: As per Annexure-A			
1.	Air temperature and humidity sensors	2		
2.	Barometric pressure sensor	1		
3.	Soil moisture EC and Temperature sensor	1		
4.	Rain Gauge	1		
5.	PAR Quantum sensor	1		
6.	2D-ultrasonic anemometer	1		
7.	Data logger with enclosure	1		
8.	Tripod and Mast	1		
9.	Solar panel & Battery	1		

<u>NB:</u>

- 1. The online updated Price BOQ is in INR format. If bidder want to quote other than INR please specify the quoted currency in the technical bid/part and fill the amount in same updated BOQ.
- 2. Please bifurcate the price on shipping terms i, e, Ex-works -> FCA/FOB -> CIP/CIF in price BOQ and specify the same in technical bid.

SUBMISSION OF TENDER

- I. All bid/ tender documents are to be uploaded online at Central Public Procurement portal i.e. <u>https://eprocure.gov.in/eprocure/app</u> only and in the designated cover/ part on the website against tender ID. Tenders/ bids shall be accepted only through online mode and no manual submission of the same shall be entertained except tender fee and EMD. Late tenders will not be accepted.
- II. The online bids shall be opened at the office of the Assistant Registrar (P&S), IISER Mohali, on above given date and time. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be attended on the next working day at same time and place. IISER Mohali will not be responsible for any error like missing of schedule data while downloading by the Bidder.
- **III.** The bidder shall upload the tender documents duly filled in and stamped by the authorized signatory on each and every page. Tender not submitted/uploaded in the prescribed form and as per the tender terms and conditions shall be liable for rejection.
- IV. The bidder shall upload scanned copy of the PAN Card, GST number duly signed and stamped. Also bidders applying against 'MSME/NSIC Certificate" issued by appropriate Authority, should ensure that the certificate attached is relevant to the area of service/supply. For example, If the tender is for "supply & installation of Desktop" the certificate should be issued for activity/area of "Computer supply and services activities etc" otherwise bid will be REJECTED without prior notice.
- V. E-procurement system ensures locking on the scheduled date and time. The system will not accept any bid after the scheduled date and time of submission of bid.

INSTRUCTIONS

3 | P a g e

- 1. The Online bids should be submitted directly by the original manufacturer/supplier, If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company for quoting the price otherwise such quotation will be rejected.
- 2. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute. Before the deadline for submission of the online bid, IISER Mohali reserves the right to modify the tender document terms and conditions. Such amendment/modification will be notified on website against said tender ID.
- 3. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supplier from outside India should mention the Ex-works/FOB/FCA/CIF/CIP price clearly. Conditional tenders will be summarily rejected.
- 4. In case of Ex-godown terms the amount of packaging forwarding freight etc. should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payments towards any purchase, Letter of credit can be opened if required.
- 5. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY under notification no-TU/V/RG/-CDE(1062)/201 CUSTOM DT.30.08.2016.
- 6. Tax: This Institute is not exempted from the payment of GST. The current rate (i.e. percentage of GST should be clearly indicated included or excluded) wherever chargeable. Please also provide/upload the copy of PAN card, GST number duly self-attested.
- 7. Concessional GST is applicable for all the items purchased for Research labs vide Ministry of Finance, notification no. 45/22017 dated 14.11.2017 and 47/2017 dated 14.11.2017.
- 8. Bidder/s quoting in currency other than **Indian Rupee** (**INR**) should explicitly mention the currency in which tender quoted wherever applicable in <u>Technical Bid</u> along the tender documents.
- 9. The delivery period should be specifically stated. Earlier delivery will be preferred.
- 10. The firms are requested to provide/upload detailed description and specifications together with the detailed drawings, printed leaflets and literature of the article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
- 11. Validity of offer: 90 days. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee @ 10 % of the value of supply order as per norms may be sought from the firms.
- 12. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved by the IISER Mohali. For any corrigendum and addendum please be checked the website https://eprocure.gov.in/eprocure/app and https://eprocure/app and https://eprocure.gov.in/eprocure/app and <a href="https://eprocure.gov.in/eprocu
- 13. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

-sd/-

(Mukesh Kumar) Assistant Registrar (S&P)

ANNEXURE-A				
Meteorological station with tripod. mast and	Air temperature and humidity sensors (2)			
independent power supply (Solar panel &	Barometric pressure sensor (1)			
hattery) for field deployment including the listed	Soil moisture EC and Temperature sensor (1)			
sensors	Rain Gauge (1)			
NOTE: Supply, installation and commissioning	PAR Quantum sensor (1)			
should be done by single vendor who will also	2D-ultrasonic anemometer (1)			
undertake to provide service warranty on basis	Data logger with enclosure (1)			
of direct authorization certificates issued by	Tripod and Mast (1)			
original OFM to them for each component	Solar panel & Battery (1)			
Air Temperature & Humidity sensor with	bolar parter & Battery (1)			
radiation shield _ sensor 1				
Tamperature range:	30° C to $\pm 60^{\circ}$ C or larger			
Output resolution of Temperature sensor:	0.05° C or better			
Accuracy: of Temperature sensor	± 0.5 °C or better between ± 5 and ± 40			
Accuracy. or remperature sensor	± 0.5 C of better between +5 and +40° $\pm 1.0^{\circ}$ C for 30°C to $\pm 5^{\circ}$ C and $\pm 40^{\circ}$ C to $\pm 60^{\circ}$ C			
Perpense time of Temperature sensor	$\pm 1.0 \text{ C}$ 101 - 50 C to +5 C and +40 C to +00 C			
Response time of Temperature sensor.	120 s of less			
	0 to 100% at -20 C to 50 C of larger			
Actautive number of DLL concern	0.05% BH or bottor			
Accuracy of DH consor:	0.03% Km 0F Detter			
Accuracy of KH sensor:	$\pm 2\%$ IIOM 10% to 90% KH			
	±4% at <10% KH and >90% KH			
Short term Hysteresis of KH sensor:	<1%) KII 20/ an loss from 20%C (1.50%C)			
Temperature dependence of RH sensor:	$\pm 2\%$ or less from -20°C to 50°C			
Stability of RH sensor:	$\pm 1\%$ per year			
Response time of RH sensor:	1 minute or less			
Calibration traceability:	NIST and NPL standards			
Communication standard:	SDI-12 V1.3			
Housing classification:	1P65			
Cable length:	≥10 m			
Radiation shield & Mounting structure:	6-Plate radiation shield with U-bolts for attachment to cross arm			
	or mast			
	Cross arm of minimum 2 ft length			
Air Temperature & Humidity sensor with				
radiation shield – sensor 2				
Temperature range:	-30° C to $+60^{\circ}$ C or larger			
Output resolution of Temperature sensor:	0.05°C or better			
Accuracy of Temperature sensor:	± 0.5 °C or better between +5 and +40			
	$\pm 1.0^{\circ}$ C for -30° C to $+5^{\circ}$ C and $+40^{\circ}$ C to $+60^{\circ}$ C			
Response time of Temperature sensor:	120 s or less			
Relative Humidity measurement range:	0 to 100% at -20°C to 50°C or larger			
Output resolution of RH sensor:	0.05% or better			
Accuracy of RH sensor:	±2% from 10% to 90% RH			
	±4% at <10% RH and >90% RH			
Short term Hysteresis of RH sensor:	<1% KH			
Temperature dependence of RH sensor:	$\pm 2\%$ or less from -20°C to 50°C			
Stability of RH sensor:	$\pm 1\%$ per year			
Response time of RH sensor:	1 minute or less			
Calibration traceability:	NIST and NPL standards			
Communication standard:	SDI-12 V1.3			
Housing classification:	IP65			
Cable length:	≥10 m			
Radiation shield & Mounting structure:	6-Plate radiation shield with band clamp for attachment to pole			
Barometric pressure sensor:				
Accuracy:	± 1 mb or better from 0°C to 40°C			
	± 2 mb or better from -30°C to 0°C and 40°C to 60°C			
Linearity:	± 0.5 mb or better			
Hysteresis:	± 0.05 mb or less			
Repeatability:	± 0.03 mb or better			
Resolution:	± 0.01 mb or better			
Long term stability:	± 0.1 mb per year			
Response time:	<120 s			
Cable length:	≥10 m			
Soil Moisture, EC and Temperature Sensor:	With rod insertion accessory			

Rod spacing: IP rating:32 mm IP68IP rating: Electromagnetic safety Rod largethIP68Rod diameter>3 mmSoil temperature measurement range: Soil temperature measurement precision: ±0.05°C or better>10° to $+70°C$ to $+50°C$ or betterSoil temperature measurement precision: ±0.05°C or better±0.05°C or betterSoil electrical conductivity measurement range: Soil electrical conductivity measurement range: to electric permittivity measurement range: to soil electrical conductivity measurement range: to 8d Sm ⁻¹ for both solution EC and bulk EC ±1% of bEC or betterSoil electrical conductivity measurement range: Relative dielectric permittivity measurement accuracy: Cable length: Soin to the solution EC and bulk EC ±1% of BEC or betterRating dielectric permittivity measurement cacuracy: Cable length: Suito ratings:±0.05 dS m ⁻¹ or betterCable length: Raings: Coperating temperature range: Operating temperature range: Nor-tastbilly (b to 10.000 µm0/m ² s); Cable length: Ascuracy: Cable length: Cable length: Cable length: Cable length: Cable length: Cable length: Cable length: <br< th=""><th></th></br<>	
IP range: Electromagnetic safetyIP68 CE compliant must meet EN61326 S nmFed length>3 mmRod length>100 mmSoil temperature measurement accuracy: Soil volumetric water content range: Soil volumetric water content accuracy: Soil electrical conductivity measurement range: Soil electrical conductivity measurement range: to 8 dS m ⁻¹ for both solution EC and bulk EC ±0.1% or better ±10.1% or better ±10.1% or better ±10.1% or better ±10.1% or better ±10.1% or better ±5% of reading or better ±5% of reading or better ±5% of reading or better ±10.8 dS m ⁻¹ for both solution EC and bulk EC ±10.1% or better ±10.1% or less Bounce setting time in more less Bounce setting time in more less Bounce setting time in more less OPC to 50°C Con 50°C to 50°C to 50°C to 40°C or larger Tapping bucket with magnetic momentary contact reed sw Closure time: 180 mm per hour Cable length: Sectoral range (50% points) Sectinal range (50% points) Sectional response: Humidity range: Temperature dependence of response: Humidity range: Temperature ra	
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Wind speed range: 0 to 60 m/s Wind speed range: 0 to 60 m/s)
Wind great resolution	/
wind speed resolution: [U.U.I m/s or benef	
Wind speed accuracy +2 % or better at 12 m/s	
Wind direction range: 0° to 359° (no dead hand)	
Wind direction resolution:	
Wind direction accuracy:	
Cable length: $> 10 \text{ m}$	
Maximum cable capacitance:	
Output RS_232	
Output INS-2.52 Dower Supply Solar papel with minimum 20W/ (more if required by the solar papel)	neore
solar parter supply	115015
C uata loggel), charge controller with 20 An SNIF Ballery Mounting structure: Trinod and Mast of minimum 2 m baisht with all accounts	
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	accessories to mount and keep the mast stable in the field at	
	wind speeds up to 20 m/s.	
	Enclosure for data logger with accessories for mounting	
Data Logger	 Must be suitable to supply power, give commands to and record data from all the sensors specified above. Must support serial sensors with RS-232 and RS-485 native 	
	 Must have surge and over-voltage protection on all terminals Must be suitable for flexible power input from solar panel, 	
	 5. Must have OS and must be programmable with CR Basic or SCWin program generator and must be PakBus compatible 	
	 Must be supplied with internal storage and should have option to expand storage (e.g. Micro SD card) to store 16 GB data 	
	 Clock Accuracy must be ±3 minutes per yer and should have the option of GPS correction 	
	8. Must have USB or USB micro slot for connection with PC. If slot for connecting to USB is different, then it must be supplied with suitable cable.	