Tender

For

Supply and Installation of Equipment for Internet of Things based Condition Monitoring System for Wind Turbine

(Electrical Engineering Department)



VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE (VJTI)

H R Mahajani Marg, Matunga, Mumbai – 400019

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Tender document for Supply and Installation of Equipment for Internet of Things based Condition Monitoring System for Wind turbine

(Electrical Engineering Department)

(Tender No.: VJTI/ EE/RPS/2021-01, dated: 06/07/2021)

Tender document can be downloaded during 07th July 2021 to 27th July 2021 from VJTI Website www.vjti.ac.in

No editing /addition/deletion of matter (in document) is permitted. If such action is observed at any stage, such bidders are liable for rejection outright and decision of the Institute shall be final and binding for all the bidders.

For Enquiry Contact:

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Director

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CHECKLIST OF THE DOCUMENTS TO BE ATTACHED ALONG WITH THE TECHNICAL BID

Sr.No	Name of the document	Yes/No
1.	EMD Rs. 15,000/- (Rs. Fifteen Thousand only) and Tender document Cost of Rs 3540/-,(Three Thousand Five Hundred Forty only) and in favour of "The Director VJTI" Payable at Mumbai	
2.	Letter of authorization from the manufacturer/parent company (In case of authorized dealer)	
3.	List of clients/customers with complete name, address and contact number during last 2 years	
4.	Documentary proof of experience in sale of Electrical Equipment	
5.	Documentary proof of Goods and Service Tax (GST) Registration Certificate	

VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE (VJTI)

H R Mahajani Marg, Matunga, Mumbai-400019

Supply and Installation of Equipment for Internet of Things based Condition Monitoring System for Wind turbine

(Tender No.: VJTI/ EE/RPS/2021-01, dated: 06/07/2021)

Issue of tender document	On all working days from 07th July 2021 to 27th July 2021
Tender Document Cost	Non-Refundable Demand Draft of Rs. 3540/- (Rs. Three Thousand Five Hundred Forty only.) in favour of "The Director, VJTI" payable at Mumbai to be submitted separately.
Earnest Money Deposit (EMD)	Rs. 15,000/- (Rs. Fifteen Thousand only)
Online pre Bid Meeting	Online pre Bid meeting is scheduled on 13 th July 2021 at 12:00 PM. Link will be sent to interested bidders only. Interested Bidders will have to send request for incitation on Coe.cnds@vjti.org.in
Last date and time for submission of Tenders.	Up to 4:00PM on 27 th July 2021
No tender document will be accepted after the date and time given above.	
Tender to be submitted to inward section of VJTI.	

REGISTRAR

CHAPTER-1

INVITATION OF THE BID

SCOPE OF THE WORK:

VJTI Invites sealed bids for "Supply and Installation of Equipment for Internet of Things based Condition Monitoring System for Wind Turbine" in Electrical Engineering Department as per the specifications contained in Chapter-4 of this Tender Document. The bidder should be a reputed manufacturer or authorized dealer/distributor. The Equipment will need to be supplied and installed at VJTI Matunga, Mumbai–400019.

DETAILS OF THE BID:-

Issue of tender documents	On all working days from 07th July 2021 to
	27 th July 2021
Last date and time of submission of bids	Up to 4.00 PM on 27 th July 2021

BIDDING PROCEDURE: -

The prescribed document consisting of (i) Technical Bid and (ii) Financial Bid, sealed separately in two different envelopes, super-scribing "Technical Bid" and "Financial Bid", as the case may be, and placed in a duly sealed big single envelop super-scribing "Bid for Supply And Installation Of Equipment For Internet Of Things Based Condition Monitoring System For Wind Turbine" may be submitted in inward section of VJTI at main building administrative office, Matunga, Mumbai-400019 before 4.00PM on 27th July 2021. The bids may be sent through Post and ensure that it should to reach at the aforesaid address before 4.00 PM on 27th July 2021.

In case an acknowledgement of receipt of quotation is desired, it should be sent with an acknowledgement due cover, so as to reach VJTI, Matunga, Mumbai -400019, 4.00 PM on 27th July 2021.

The Technical Bid shall be accompanied by a Demand draft for EMD Rs. 15,000/- (Rs. Fifteen Thousand Only) and Tender document Cost of Rs 3,540/- (Three Thousand Five Hundred and Forty only) drawn in favour of "The Director, VJTI" payable at Mumbai. Technical Bids received without the demand draft or not fulfilling the prescribed conditions will be summarily rejected and decision of the Institute in this regard shall be final and binding. Only those bidders, whose technical bids are complete in all respects and satisfy all laid down terms and will be considered for financial bids.

Note: Fax/Telex and incomplete offers will be rejected. VJTI reserves the right to accept or reject any or all bids at its absolute discretion without assigning any reason, whatsoever or any notice.

CHAPTER – 2

INSTRUCTIONS TO BIDDERS

- 1. The bid document can be obtained from Stores section or can be downloaded from VJTI website, http://www.vjti.ac.in. No editing, addition/deletion of matter is permitted. If such action is observed at any stage, such tenders are liable for outright rejection.
- 2. Only enclosed formats as provided in original should be used. All sheets need to be submitted after affixing seal of the Company and Signature of the authorized signatory. Additional sheets, duty authenticated, may be attached to elucidate specifications or clarify the specific issues.
- 3. The prescribed documents consisting of (i) Technical Bid and (ii) Financial Bid, sealed separately in two different envelopes, super-scribing "Technical Bid" and "Financial Bid", as the case may be, and placed in a duly sealed big single envelop super-scribing "Supply and Installation of Equipment for Internet of Things based Condition Monitoring System for Wind Turbine" may be submitted to inward section of administrative office, main building of VJTI, Matunga, Mumbai 400019 or sent through Post at the same address before 4.00 PM on 27th July 2021.
- 4. Bidders has to submit EMD of Rs. 15,000/- (Rs. Fifteen Thousand only) and Tender document Cost of Rs 3,540/- (Three Thousand Five Hundred and Forty only) along with the technical bid. Bids received without EMD shall be summarily rejected. The EMD shall be refunded (without interest) after the execution of the contract. The earnest money shall be deposited by crossed Pay Order / Demand Draft/ Bank Guarantee in favour of Director VJTI payable at Mumbai. Cheques, Bearer Bonds, Promissory Note, Cash Certificate etc. will not be acceptable towards the EMD. VJTI reserves the right to forfeit the EMD amount on non-acceptance/ non-compliance of offer in full or part or if VJTI feels that has bidder miss-guided in any way.
- 5. Relevant product literature may be enclosed with the bid along with media (if any).
- 6. Corrections/Alterations, if any, in the offers should be attested properly duly signed by authorized signatory and affixing seal by the vendor, failing which the tender will be rejected.
- 7. The items can be supplied by the manufacturer directly or through their authorized dealer/authorized channel partners/distributors. Letter of authorization from the manufacturer/parent company to be enclosed in case of authorized dealer/distributor.
- 8. The bidder shall quote the prices in INR of goods and services inclusive of all duties and all taxes, freight, levies, or charges.

- 9. In case of any discrepancy between the unit price and the total price, the unit price shall prevail and total price shall be corrected unless it is lower than the sum total of unit prices. If there is any variation between amount written in figure & words and then amount whichever is lower shall be taken into consideration.
- 10. All the terms and conditions for the supply, delivery, payment, warranty, penalty, etc. will be as given herein and no change in any term or condition by the vendors will be acceptable.
- 11. The firms should also submit a list of their clients/customers (with complete name, address of the firms and telephone number of the contact person therein) including in Govt. educational institutions & public sectors with details of the equipment supplied by them for information of the Institute.
- 12. Canvassing in any form will be viewed seriously and if any bidder is found to be resorting to such practice, the tender of such firm will be rejected.
- 13. The vendor should comply with the COVID-19 related safety health practices as laid by the Govt. of India, during completion of work.

CHAPTER -3

TERMS & CONDITIONS OF CONTRACT

- 1. Bidder should have registration of Goods and Service Tax (GST) documentary proof the same will need to be enclosed.
- 2. All the terms and conditions for the supply, delivery, payment, warranty, penalty, etc. will be as given herein and no change in any term or condition by the vendors will be acceptable.
- 3. To assist the examination, evaluation, and comparison of bids, VJTI may at its discretion, ask the bidders for clarification of bids including price. The request for clarification and the response shall be in writing.
- 4. Lowest competitive bidder will be considered on the basis of the final cost of the package. Individual Equipment-wise L1 will not be considered.
- 5. Delivery and Installation period: Maximum 8 weeks from the date of purchase order. Penalty for late delivery @ 1% per day (maximum up to 10%) after due date will be charged. The installation report should be signed by the firm engineer jointly with authorized VJTI personnel/representative. The items shall be delivered and installed at VJTI, Matunga, Mumbai-400019.
- 6. Payment terms: 100% of the payment shall be released on successful satisfactory delivery and installation of Equipment by authorized VJTI representative.
- 7. The supplier's request for payment shall be made in writing accompanied by relevant document such as proper invoice and satisfactory installation reports duly signed by VJTI's representative.
- 8. VJTI reserves the right to accept or reject any or all offer(s) in part or full without assigning any reason thereof, and to amend the terms and conditions before award of the contract.
- 9. Warranty period as and where applicable shall be mentioned with free services.
- 10. Any disputes arising out of this tender will be under the jurisdiction of court of Mumbai only.
- 11. The Supplier shall not without the VJTI's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the VJTI in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 12. The inspections and tests may be conducted on the premises of the VJTI at point of delivery.
- 13. The VJTI's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the VJTI or its representative prior to the Goods shipment.
- 14. The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models. The Supplier further warrants that all Goods supplied under

- this Contract shall have no defect arising from design, materials, or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in India.
- 15. The items can be supplied by the manufacturer directly or through their authorized dealer/authorized channel partners/distributors. Letter of authorization from the manufacturer/parent company is must and to be enclosed in case of authorized dealer/distributor.
- 16. The bidder shall quote the prices in INR of goods and services inclusive of all duties and all taxes, freight, levies, or charges.
- 17. In case of any discrepancy between the unit price and the total price, the unit price shall prevail and total price shall be corrected unless it is lower than the sum total of unit prices. If there is any variation between amount written in figure & words and then amount whichever is lower shall be taken into consideration.
- 18. All the terms and conditions for the supply, delivery, payment, warranty, penalty, etc. will be as given herein and no change in any term or condition by the vendors will be acceptable.
- 19. The firms should also submit a list of their clients/customers (with complete name, address of the firms and telephone number of the contact person therein) including in Govt. educational institutions & public sectors with details of the equipment supplied by them for information of the Institute.
- 20. Canvassing in any form will be viewed seriously and if any tenderer is found to be resorting to such practice, the tender of such firm will be rejected.

CHAPTER – 4

SPECIFICATION FOR SUPPLY AND INSTALLATION OF EQUIPMENT FOR INTERNET OF THINGS BASED CONDITION MONITORING SYSTEM FOR WIND TURBINE

Required Equipment:

High End portable personal computer Chipset: Apple M1 chip or above, 8-core CPU with 4 performance cores and 4 efficiency cores. 8-core GPU. 16-core Neural Engine. 16GB RAM on model with 2TB storage Display: Liquid Retina XDR display 32.77 cm / 12.9-inch (diagonal) mini-LED backlit Multi-Touch display with IPS technology. 2732x2048-pixel resolution at 264 pixels per inch (ppi). 120Hz ProMotion technology. Wide colour display (P3). True Tone display. Fingerprint-resistant oleophobic coating. Anti-reflective coating. 1600 nits peak brightness (HDR). 10,00,000:1 contrast ratio. Apple Pencil (2nd generation). Camera: Pro camera system. Wide: 12MP, f/1.8 aperture. Ultra Wide: 10MP, f/2.4 aperture and 125° field of view. 2x optical zoom out. Digital zoom up to 5x. Five-element lens (Wide and Ultra Wide). Smart HDR 3. Sensors: LiDAR Scanner, Three-axis gyro, Accelerometer, Barometer, Ambient light sensor. Charging & expansion: Thunderbolt / USB 4 Cellular & Wireless: 5G, Wi-Fi 6, eSim. Magic keyboard (black) and Pencil (2nd gen) for iPad pro(5th gen) 12.9-inch, space grey, 2TB, wifi+cellular. Sony-WH-1000XM4 Wireless Noice Cancelling Headphones, Black. Warranty 12 Months	Sr No	Item	Description	Qty
acquisition system 1. NX102 Šeries SYŠMAC Modular Machine Controller Qty 1 OPC UA serving for IIoT applications, such as PackML, ERP and MES • CIP Safety and FSoE both supported • Integrated PLC, motion and safety programming • Modbus/TCP protocol built-in 2 x EtherNet/IP and 1 x EtherCAT; 1 x SD Memory Card 64 nodes, included distributed safety (FSoE) Up to 32 connectable to CPU, including High-speed Analogue • 4 positoning axes + 0, 2, 4 or 8 motion control axes • Programming via PLCopen Motion standards Programming: SYSMAC Studio Suite and Libraries: SYSMAC Libraries NX-series Modular I/O CIP Safety NA series HMIs Warranty 12 Months 2. 4G Routers: GSM/GPRS/EDGE/ UMTS/DC-HSPA+/LTE IEEE 802.3 10Base-T IEEE 802.3u 100Base-T(X) 12.5dBi omni-directional, SMA(male) connector, 3 meters cable with magnetic stand WAN: 1 10/100Base-T(X), auto MDI/MDI-X, auto negotiation Earla Ports: 1 RS-232 (5-pin terminal block), 1 RS-485 (3-pin terminal block), 15KV isolation protection Baud Rate: 2400bps to 115200bps Data Bits: 7, 8 Parity: None, Even, Odd Stop Bits: 1, 2 Flow Control: RTS/CTS (RS-232 only), XON/XOFF RS-232: TxD, RxD, RTS, CTS, GND RS-485: D+, D-, GND USB 2.0 host, type A Digital Inputs (DI) 2 sets 0~+5V is OFF +11V-30V is ON Max. input current 6mA Alarm Contacts (DO) 2 relay outputs Carry current 1A@24VDC SIM Slot Number of SIMs: 2, Mini-SIM (25mm x 15mm) SIM Operating Voltage: 1.8V/3V Reset Button 1set	1	portable personal	8-core GPU. 16-core Neural Engine. 16GB RAM on model with 2TB storage Display: Liquid Retina XDR display 32.77 cm / 12.9-inch (diagonal) mini-LED backlit Multi-Touch display with IPS technology. 2732x2048-pixel resolution at 264 pixels per inch (ppi). 120Hz ProMotion technology. Wide colour display (P3). True Tone display. Fingerprint- resistant oleophobic coating. Anti-reflective coating. 1600 nits peak brightness (HDR). 10,00,000:1 contrast ratio. Apple Pencil (2nd generation). Camera: Pro camera system. Wide: 12MP, f/1.8 aperture. Ultra Wide: 10MP, f/2.4 aperture and 125° field of view. 2x optical zoom out. Digital zoom up to 5x. Five-element lens (Wide and Ultra Wide). Smart HDR 3. Sensors: LiDAR Scanner, Three-axis gyro, Accelerometer, Barometer, Ambient light sensor. Charging & expansion: Thunderbolt / USB 4 Cellular & Wireless: 5G, Wi-Fi 6, eSim. Magic keyboard (black) and Pencil (2nd gen) for iPad pro(5th gen) 12.9-inch, space grey, 2TB, wifi+cellular. Sony-WH-1000XM4 Wireless Noice Cancelling Headphones, Black.	1
· ·	2	acquisition	1. NX102 Series SYSMAC Modular Machine Controller Qty 1 OPC UA serving for IIoT applications, such as PackML, ERP and MES • CIP Safety and FSoE both supported • Integrated PLC, motion and safety programming • Modbus/TCP protocol built-in 2 x EtherNet/IP and 1 x EtherCAT; 1 x SD Memory Card 64 nodes, included distributed safety (FSoE) Up to 32 connectable to CPU, including High-speed Analogue • 4 positoning axes + 0, 2, 4 or 8 motion control axes • Programming via PLCopen Motion standards Programming: SYSMAC Studio Suite and Libraries: SYSMAC Libraries NX-series Modular I/O CIP Safety NA series HMIs Warranty 12 Months 2. 4G Routers: GSM/GPRS/EDGE/ UMTS/DC-HSPA+/LTE IEEE 802.3 10Base-T IEEE 802.3u 100Base-T(X) 12.5dBi omni-directional, SMA(male) connector, 3 meters cable with magnetic stand WAN: 1 10/100Base-T(X), auto MDI/MDI-X, auto negotiation LAN: 4 10/100Base-T(X), auto MDI/MDI-X, auto negotiation Serial Ports: 1 RS-232 (5-pin terminal block), 1 RS-485 (3-pin terminal block), 15KV isolation protection Baud Rate: 2400bps to 115200bps Data Bits: 7, 8 Parity: None, Even, Odd Stop Bits: 1, 2 Flow Control: RTS/CTS (RS-232 only), XON/XOFF RS-232: TxD, RxD, RTS, CTS, GND RS-485: D+, D-, GND USB 2.0 host, type A Digital Inputs (DI) 2 sets 0~+5V is OFF +11V~30V is ON Max. input current 6mA Alarm Contacts (DO) 2 relay outputs Carry current 1A@24VDC SIM Slot Number of SIMs: 2, Mini-SIM (25mm x 15mm) SIM Operating Voltage: 1.8V/3V Reset Button 1set	_
Table Table IEC standard 61000-4-2 testing table set up Table - All Wood (No metal or Nails) & Sizing per Standard having Wooden Table with Set Plywood Top, PolishingFinish. Size: 2.5 Mtr (L)X 1.5 Mtr X 0.8 Mtr. (H) with Ground Strip 3m and VCP.	3	Table	IEC standard 61000-4-2 testing table set up Table - All Wood (No metal or Nails) & Sizing per Standard having Wooden Table with Plywood Top, PolishingFinish. Size: 2.5 Mtr (L)X 1.5 Mtr X 0.8 Mtr. (H) with Ground Strip	_

Ground Coupling Plane (GCP): Two Aluminium Sheet Size - 3 Meter X 1.5 Meter – 2Nos.	
Grounding/Bleed off Cables & Resistors: Three $2x470K\Omega$ Bleeder Resistor.	
Insulating Foil/Paper	

Bidder to submit offer in following format:

Sr. No	Name of Item	Quantity (Nos)	Specification as per tender Document	Bidders Specifications	Deviation (if any)	Remark
1						
2						
3						

Date:-

Name and Signature with seal of Bidder

CHAPTER – 5

FINANCIAL BID

Price should be quoted in INR inclusive of Goods and Service Tax (GST).

Date:

Sr. No	Name of Item	Quantity	Rate per No.	Amount (Rs)	Taxes: Goods and Service Tax (GST)(Rs)	Total Amount (Rs)
1	2	3	4	5	6	(5+6)
1						
2						
3						
	Any other (Please specify)					
Tota	al Bid Price in Rs (figure	e)				
Tota	al Bid Price in Rs (word)				
Sign	nature of Bidder with sea	al				
Busi	iness Address					
Tel I	No					
Mob	oile No.					
Ema	ail Id:					
Fax	No.					
We ac	ccept all terms & condit	ions of the c	ontract.			

Name and Signature of Bidder with seal.