

मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान भोपाल Maulana Azad National Institute of Technology Bhopal (भारत सरकार, शिक्षा मंत्रालय के अधीन राष्ट्रीय महत्व का संस्थान) (An Institution of National Importance under MoE, Govt. of India)			
			
सीमित निविदा पृष्ठताछ			
LIMITED TENDER ENQUIRY			
सामग्री/वस्तु का नाम Name of Goods/Items		Wind Turbine Emulator	
Website	www.manit.ac.in	Fax No:	0755-2670562
Email Address:	info@manit.ac.in	Telephone No:	0755-4051000, 0755-4052000

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मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल	
Maulana Azad National Institute of Technology Bhopal	
(भारत सरकार, शिक्षा मंत्रालय के अधीन राष्ट्रीय महत्व का संस्थान)	
(An Institution of National Importance under MoE, Govt. of India)	
No. MANIT/ESE/2025:15	दिनांक / Date:21/11/2025
निविदा आमंत्रण सूचना	
NOTICE INVITING TENDERS	
सामग्री / वस्तु का नाम Name of Goods/Items	Wind Turbine Emulator
उपरोक्त सामग्री / वस्तु के लिए निविदाएँ आमंत्रित की जाती हैं। इच्छुक निर्माता/अधिकृत भागीदार/ एंजेंसियाँ, अधिक जानकारी के लिए संस्थान के वेबसाइट www.manit.ac.in और CPPP वेबसाइट www.eprocure.gov.in/epublish/app पर लागू-इन कर सकती हैं। निविदा दस्तावेज डाउनलोड कर विधिवत रूप से उप-कुलसचिव (भण्डार एवं क्रय) मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल – 462003 जमा किया जा सकता है। सम्पूर्ण निविदा मय दस्तावेज प्रस्तुत करने की अंतिम तिथि 11 दिसंबर 2025 अपरान्ह 12.00 बजे तक है। संस्थान निदेशक, बिना कोई कारण बताए किसी या संपूर्ण निविदा को पूर्ण या आंशिक रूप से स्वीकार या अस्वीकार करने का अधिकार सुरक्षित है।	
	कुलसचिव
Tenders are invited for aforesaid Goods/ Items. Interested Manufacturers/ Authorized Partner/Agencies may log on Institute website www.manit.ac.in and CPPP website www.eprocure.gov.in/epublish/app for further details. Tender Document can be downloaded and the duly completed be submitted to the Deputy Registrar (Stores & Purchase) Maulana Azad National Institute of Technology- Bhopal- 462003. Last date of submission of complete tender documents is 11 December 2025 up to 12.00 hours. The Director of the Institute reserves the right to accept or reject any or the entire tender in full or in part without assigning any reason whatsoever.	
	Registrar

मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल
Maulana Azad National Institute of Technology Bhopal

एक नजर में महत्वपूर्ण जानकारियाँ		
IMPORTANT INFORMATION AT A GLANCE		
निविदा क्रमांक एवं दिनांक Tender No & Date		No. MANIT/ ESE/2025:15 Date: 21/11/2025
निविदा का कार्यक्षेत्र/SCOPE OF TENDER		
सामग्री/वस्तु का संक्षिप्त विवरण Brief Description of Goods/Items	संख्या Quantity	टिप्पणी Remarks
Wind Turbine Emulator	As per BoQ	संलग्नक- I पर विस्तृत विवरण Detailed Specification at Annexure-I
निविदा की अनुमानित लागत Estimated cost of Tender	Rs.550000.00	
आपूर्ति एवं स्थापना का स्थान Location of Supplies & Installation	ऊर्जा विज्ञान एवं अभियांत्रिकी विभाग Department of Energy Science & Engineering at Institute	
निविदा दस्तावेज की उपलब्धता Availability of Tender Document	www.manit.ac.in www.eprocure.gov.in/epublish/app	
निविदा जमा करने के अंतिम दिनांक एवं समय Last Date & Time of Submission of Tender	11-12-2025 up to 12:00 hours	
निविदा खुलने की दिनांक एवं समय Date & Time of Opening of Bids	11-12-2025 at 15:00 hours	
निविदा वैधता की अवधि Tender Validity period	60 days from the date of opening of the Technical Bid	
वितरण/आपूर्ति की अवधि Delivery/ Supply period	06 weeks from the date of issue of Supply Order	
वारंटी अवधि Warranty Period	1 year (s) from the date of successful Installation & Commissioning of equipments/ items	
बोली सुरक्षा/बयाना राशि Bid Security/ EMD	As per slab mentioned in the document.	
निष्पादन सुरक्षा राशि Performance Security Amount	As per slab mentioned in the document	

बोलीदाता के लिये निर्देश/अनुदेश / INSTRUCTIONS TO BIDDERS		
1	Scope of Supplies & Work:	
	a	The Goods/ Items shall be supplied as per the Bill of Quantity and Specifications mentioned in ANNEXURE-I . However higher specification of equipment may be considered subject to their cost economics competitiveness.
	b	Bidder should supply illustrated leaflet giving technical details of Goods/ Item and attach the same with the tender to facilitate evaluation.
	c	No option(s) regarding price of Goods/ Items shall be entertained in the price bid. Bidder should quote the price of only one best & appropriate model of Good/Item available with them.
	d	Purchase Preference will be given to “Make in India products” as defined in Purchase Preference with Local Content (PP-LC) Policy. Accordingly, bidders with Local Content less than or equal to 20% will be treated as “Non Local Supplier”. The prescribed LC shall be applicable on the date of Bid opening. The bidder shall submit an undertaking along with the bid stating the bidder meets the mandatory minimum LC requirement and such undertaking shall become a part of the contract. Local content certificate from practicing Cost Accountant or practicing Chartered Accountant giving the percentage of local content shall be acceptable. The local content certificate shall be submitted along with each invoice raised.
	e	Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs). If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25%(selected by Buyer) percentage of total QUANTITY.
	f	Bidder may be asked to supply sample of offered product/item before supply in bulk quantities.
	g	Where ISI certification marked goods are available in market, procurement should generally be limited to goods with those or equivalent marking only. The warranty/AMC required must be specified
	h	After the supply of Goods/ Items & Accessories as mentioned in the ANNEXURE-I , the bidder has to execute its installation at the designated location(s). No extra cost shall be paid for this reason.
2	Delivery of Supplies & Installation:	
	a	The purchaser interested for complete delivery of equipments along with Installation, Testing and Commissioning within the period as mentioned at IMPORTANT INFORMATION AT GLANCE sheet. However, the bidder has an option to submit the best delivery with installation time.
	b	The material shall be inspected on receipt at site and bidder shall be

		responsible for any damage during the transit of Goods/Items.		
	c	The insurance cover including insuring the goods against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery/ installation shall be obtained by bidder in his own name and not in the name of purchases.		
3	Warranty & After Sales Services:			
	a	The bidder shall offer on-site comprehensive warranty of equipments as mentioned at IMPORTANT INFORMATION AT GLANCE sheet at the designated location & shall cover each and every part of the equipments including parts having limited life etc. The purchaser is not liable to pay any extra charges on any account during warranty period.		
	b	The bidder shall ensure to render after sales services during the warranty period to the satisfaction of purchaser.		
4	Eligibility Criteria:			
	a	Bidder should be a Company/Partnership firm/ Proprietary firm/ Agency and operational from at least 03 years (Three) as on close date of tender. Copy of registration shall be attached.		
	b	Bidder should have minimum annual turnover (Double value of estimated cost of tender) in last year .CA certification in this regard is to be submitted.		
	c	The Earnest Money Deposition slip/ proof of payment.		
	d	Bidder should have GST Number & Income PAN both.		
5	Earnest Money Deposit:			
	The bidder is instructed to submit EMD in the form of DD/FDR/RTGS/NEFT/BG/Bank deposition slip along with bid to prove the transfer of payment to the purchaser's Account as per EMD slab mentioned below:			
	Tender Value		EMD Rate	
	Less than 2.50 Lakhs		NIL	
	Between 2.50 lakhs to 25.00 Lakhs		2% of Tender Value rounded off in nearest in 100 rupees.	
	a	Purchaser's Bank Account details:		
		Account Name	Bank Name	Bank A/c No.
		Director MANIT Bhopal	State Bank of India	10020150107
				SBIN0001608
	b	The EMD will be returned to the unsuccessful bidders soon after placement of order and successful bidder shall get its EMD after supply of material.		
	c	The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category. Manufacturers for goods and service providers for services are eligible for exemption from EMD under MSE Category. Traders are excluded from the purview of this policy.		
6	Amendment of Tender Document:			
	a	At any time prior to the date submission of bids, the purchaser, may, for any reason, whether at its own initiative or in response to a clarification sought by a prospective bidder, amend bid document by issuing corrigendum. The corrigendum will be notified/ published in e-tendering website www.eprocure.gov.in/epublish/app and Institute website only.		
7	Price Bid			
	a	The Prices should be quoted in Indian Rupees only.		
	b	Purchaser (being a research Institution) is registered with the Department of Scientific & Industrial Research (DSIR) for the purpose of availing custom duty exemption in terms of GoI Notification No. 51/96-Customs dated 23 July		

		1996. The bidder should quote their prices considering the exemption certificate. If any certification needed by bidder, may be given to avail this benefit.
	c	Bidder shall take into account all costs including unloading at the location of purchaser, cartage etc. for giving delivery of material at site(s) before quoting the rates. In this regard no claim what so ever shall be entertained.
	d	The bidders are advised not to indicate any separate discount. Discount, if any, should be merged with the quoted unit prices.
	e	The price quoted in price bid shall be firm but subject to change in rate of applicable taxes if any.
	f	The Bidder should avoid the use of vague term such as “Extra as applicable”. Such offers shall be treated as non-responsive.
	g	No extra payment shall be paid on account of any discrepancy in nomenclature of items. The bidder shall seek clarifications if any before submitting the tender.
8	Bid Submission:	
		The bidder is instructed to give their offline offer through Single bid system for this tender. The tender must be placed in a properly sealed envelope superscribed “ <i>Tender for the Supply and installation of Wind Turbine Emulator.</i> ” with tender inquiry number and its due date addressed to The Director, Maulana Azad National Institute of Technology- Bhopal- 462003 and must reach the office of The Deputy Registrar- Stores & Purchase, Maulana Azad National Institute of Technology, Bhopal on or before as mentioned at IMPORTANT INFORMATION AT GLANCE sheet. The sealed Envelop should be consisting of followings:
	a	Copy of Certificate of Registration of firm, GST Number and Income Tax PAN.
	b	Proof of submission of EMD amount
	c	Certificate mentioning of Turnover for the last year and OEM authorization letter.
	d	BOQ Annexure-I and Price Bid Annexure-II duly filled and signed.
9	Evaluation of Bids:	
		The Institute may evaluate all the required Goods/Items in this tender together or independent depending upon nature of items & compatibility and compare the quotations determined to be substantially responsive i.e. which
	a	are properly signed;
	b	Confirm to the eligibility criteria of the vendor; and
	c	Confirm to the terms & conditions, and technical specifications.
	d	In case, required goods/items in this tender are independent and complete in nature. Institute may evaluate independently as far as price is concerned for placing order(s).
10	Validity of Tender:	
	a	The tender shall be valid as mentioned at IMPORTANT INFORMATION AT GLANCE sheet. Terms and financial details submitted in the bid shall be treated as firm during the validity period.
	b	In exceptional circumstances, prior to the expiry of the bid validity period, the purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing.
11	Notification of Award:	
	a	Prior to the expiry of the period of bid validity, the purchaser shall notify the successful bidder, in writing, that its bid has been accepted. The notification

		letter shall specify the sum that the purchaser will pay to the bidder in consideration of the <i>Supply of Goods/ Items</i> with the details of selected location.		
	b	Purchase/ Contract order shall preferably be issued in favour of bidder. Bidder may request in advance for issuance of Purchase/ Contract order in favour of OEM of product. In this case billing and payment shall be made to OEM only.		
12	Performance Security Deposit: The bidder is required to submit Performance Security in the form of DD/FDR/RTGS/NEFT/BG/Bank Deposit after installation of material along with the bill to the Institute as per slab mentioned below:			
	Order/ Contract Value		PSD Rate	
	Less than 2.50 Lakhs		NIL	
	Between 2.50 lakhs to 25.00 Lakhs		5% of Tender Value rounded off in nearest in 100 rupees.	
	Warranty period plus two month extra			
	a	Purchaser's Bank Account details:		
		Account Name	Bank Name	Bank A/c No.
		Director MANIT Bhopal	State Bank of India	10020150107
		SBIN0001608		
	b	In case of breach of contract, performance security shall be forfeited and the bidder shall be blacklisted for such period as decided by the competent authority in addition to cancellation of order.		
	c	Performance Security shall be returned to the bidder without any interest, whatsoever, after completion warranty period as specified in the tender.		
13	Penalty Clause:			
	a	The bidder shall indicate the period within which the ordered quantity will be supplied along with Installation & Commissioning of Goods/ Items. The bidder shall note that in case bidder fails to do so within the period of delivery indicated by the bidder in price bid of this tender, penalty @ 0.50 % on total value of the PO per week of delay would be levied subject to maximum 20 weeks. It means, the bidder shall have the liability of delayed supply to the maximum of 20 weeks after expiry of scheduled delivery date.		
14	Terms of Payment:			
	a	The Payment shall be made within 30 days by purchaser after supply and installation of Goods/ Items.		
15	Jurisdiction:			
	a	In the event of any dispute the legal matter shall be subjected to the jurisdiction of Bhopal court only.		
16	Details of Contact Persons for Query if any			
	Name		Dr. Prashant Baredar	
	Designation		Professor	
	Tel No		9406511666	
	Email		Rakesh.singh@manit.ac.in	
			Rakesh Singh Parihar	
			Technical Assistant	
			9179840676	
			Rakesh.singh@manit.ac.in	

ANNEXURE-I			
मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल Maulana Azad National Institute of Technology Bhopal			
सामग्री की मात्रा एवं विवरण BILL OF QUANTITY AND SPECIFICATION			
SN	Name of Product/ Items	Quantity	Remarks
2	Wind Turbine Emulator (Specification as per annexure-A)	02 nos.	

NB: Drawing/ Design is enclosed herewith.

We confirm with our acceptance to the technical specification as given above.

Date:		BIDDER'S NAME & SIGNATURE WITH SEAL
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				ANNEXURE- II		
FORMAT FOR SUBMISSION OF BID PRICE						
To,						
The Director						
MANIT- Bhopal- 462 003						
Sub:		Tender Document dated .				
SN	Product Description with make & Model	Discounted unit price	Qty	Qty Price	GST	Total Price
1	2	3	4	5	6	7(5+6)
1						
2						
Total offered Price						
Total (In Words):						
Delivery Period required:						
The followings things are confirmed and undertake by us that:						
a	The price quoted above are inclusive of statutory Levies & Taxes, Duties, Transportation and other charges (Insurance, Loading/ unloading, Packing & Forwarding charges, Installation etc.) at site.					
b	Taxes are subject to change/ revision.					
c	We agree with the terms and conditions specified in “Instructions to Bidders” and if selected, the execution of supplies would be made as per bill of Quantity & Specification.					
Date:		Signature of Authorized Bidder with proper rubber stamp				
		Name:				
		Designation:				
		Mobile No:				

WIND TURBINE EMULATOR

Technical Specifications

S. No.	Component	Specification
1.	DC Motor - Output Power - Nominal Field Voltage - Nominal Armature - Speed at rated voltages	1kW 220V DC 220V DC 1500
2.	DC Drive - Input voltage - Input Current - Output Voltage - Output Current - Switching Frequency	230 V 10 A 200 V 10 A 10 kHz
3.	Buck Converter after generator - Input voltage - Output Voltage - Output Current - Switching Frequency	450 V 24 V 10 A 10 kHz
4.	PMS Generator - Type - Output Power - Line to Line Voltage - RPM	PMSG 500 W 415V AC 1500
5.	Tacho-Generator - Input Voltage - Speed Encoding	24V DC 10V DC for 1500RPM
6.	Control Card - Technology - ADC Inputs - PWM Ports	Microcontroller Available Available
7.	Sensing Board - DC Voltage Sensors - DC Current Sensors	
8.	Pull-UP Card for Inverter Gate Firing	8 PWM Signals
9.	Bridge Rectifier - Rating - Capacitor	10A, 400V 3300μF, 450V
10.	Single Phase Inverter 2 Leg inverter - Maximum DC Input Voltage - Output Voltage - Rated Power	24V DC 220 V AC 500 W
11.	Measurement - DC Link Voltage Voltmeter - Armature Voltage Voltmeter - Field Voltage Voltmeter	0-1000 V 0-1000 V 0-1000 V 0-200 V

	• Battery Voltage Voltmeter • Rectified Voltage Voltmeter • Battery Current Ammeter • Tachometer	0-1000 V 0-10 A 0-2000 RPM
12.	Protection • AC and DC MCBs	
13.	Battery Bank • Voltage • Capacity • Total No. Of Batteries	12 V 24 Ah 4
14.	Autotransformer Single Phase • Voltage Range • Wattage	0-250 V 2 kW
15.	Autotransformer Single Phase • Voltage Range • Wattage	0-250 V 5 kW
16.	Wind Turbine Mode	1. Manual Mode – In manual mode WTE can be operated simply by increasing the wind speed using GUI 2. Table Mode – In Table mode, a wind profile can be manually added to the system and WTE system will follow the defined wind profile during operation 3. Simulated Mode – In Simulated mode, a wind profile saved in csv format can be uploaded to the system and WTE will follow the uploaded profile.
17.	Features	• Should be easy access to Power converters and Inverters for modifying connections for research purpose. • User modifiable Open-source software to conduct their own research