



INDIAN INSTITUTE
OF TECHNOLOGY
PALAKKAD

Indian Institute of Technology Palakkad

भारतीयप्रौद्योगिकीसंस्थानपालक्काड

STORES & PURCHASE SECTION

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Tender No. TENDER/2023-24/373

Date of Publication: 04-12-2023

Date/Time of Closing: 26-12-2023 15:00 hours

Indian Institute of Technology Palakkad Invites Tender under Two-bid system for the:

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF
POWER QUALITY MONITORING SYSTEM**

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal <https://mhrd.euniwizarde.com/>. Aspiring Bidders who have not enrolled / registered in e-Wizard should enroll / register before participating through the website <https://mhrd.euniwizarde.com/>. Bidders are advised to go through instructions provided at “**Procedure for Submission of E-tender**”. [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal”].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click “Advance Search” and select Department as ‘IIT Palakkad’. Thereafter, Click on “Search” button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://mhrd.euniwizarde.com/> as per the timeline below.

No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.

S. No.	Events	Date and Time
1	Publication of the Tender Document	04-12-2023
2	Last Date/Time for submission of ONLINE Bids	26-12-2023, 15:00 hours
3	Opening of Technical Bids	26-12-2023, 15:15 hours

Note:

1. The bidder should be a Class-I / Class-II Local Supplier meeting the requirement as per the Order No. P-45021/2/2017-PP (BE-II) issued by the Public Procurement Section, DPIIT, Ministry of Commerce and Industry, GOI dated 16-09-2020.

2. Bidders other than Class-I / Class-II Local Suppliers, who may participate in this tender, may be doing so at their own risk. Such bids would not be considered and rejected outright

TERMS AND CONDITIONS

1	GENERAL	<p>(a) The responsibility of submission of the bids on or before the last date shall rest with the tenderer. The institute will hold no responsibility for the non-receipt of the bids or the bids received after the date/time specified. Any bid received by IITPKD after the bid submission deadline prescribed by IITPKD, shall be rejected and returned unopened to the Bidder.</p> <p>(b) Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under the Laws of India. Such action will result in the rejection of bid, in addition to other punitive measures.</p> <p>(c) Each bidder shall submit only one bid, either by himself or as a partner in a joint venture or as a member of the consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected.</p> <p>(d) The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process.</p> <p>(e) IITPKD will respond to any request for clarification or modification of the Tender Document that are received up to TWO DAYS prior to the deadline for submission of bids prescribed by IITPKD. For this purpose, the prospective bidder(s) requiring clarification in the Tender Document shall notify IITPKD through the ONLINE Portal ONLY. Any such clarification, together with all the details on which the clarification had been sought, will be published in the ONLINE Portal ONLY. Deviations, if any, observed by the Institute in the submitted bids, from the Terms and Conditions of the Tender Document will not be accepted by the Institute.</p> <p>(f) Except for any such clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Registrar, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute.</p> <p>(g) The bidder is expected to examine all instructions, forms, terms and conditions in the Tender Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the Tender Document in every respect will be at the bidder's risk and may result in rejection of the bid.</p> <p>(h) The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document.</p> <p>(i) The Supplier shall not, without the prior written consent of the IITPKD, assign to any third party, the Contract or any part thereof.</p>
2	COMPOSITION OF THE TENDER DOCUMENT	<p>(a) The Tender Document comprises of:</p> <p style="padding-left: 40px;">Instruction to the bidders including terms and conditions</p> <ol style="list-style-type: none">1. Technical Specifications (Annexure-I)2. Undertaking by the Bidder (Annexure-II)3. Fall Clause Notice Certificate (Annexure-III)4. Annexure regarding Blacklisting/Debarment (Annexure-IV)5. Self Declaration – MII Order (Annexure-V)

3	DOCUMENTS COMPRISING THE BID	<p>(a) The Technical, Techno-commercial and Commercial Bids (Cover One) and Commercial Bid (Cover Two) shall be submitted ONLINE through the e-Wizard Portal.</p> <p>(b) Bids submitted in any mode other than ONLINE will be rejected outright.</p> <p>(c) Documents establishing the conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.</p> <p>(d) Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.</p> <p>(e) Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.</p> <p>(f) Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.</p> <p>(g) The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in the technical bid. Mentioning of Prices in the Technical Bid shall lead to <u>DISQUALIFICATION</u>.</p> <p>(h) Bidders who are bidding for this tender,</p> <ol style="list-style-type: none"> 1) Should have implemented at least THREE ORDERS of Power Quality Monitoring System during previous three financial years (2020-21, 2021-22, 2022-23) from Centrally Funded Technical Institutes (IITs, NITs, IISc, IISER), DRDO, ISRO, CSIR labs or Government Firms in India. Copies of the most recent purchase orders and user certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished. 2) Should have an Average Annual Turnover of Rs 10,00,000/- (RUPEES TEN LAKHS ONLY) during the last THREE financial years (2020-21, 2021-22, 2022-23). The bidder shall enclose the audited statements of the indicated financial years, which should have been certified by a Chartered Accountant or a Competent Authority. 3) Should submit Digitally signed Tender Document in Cover One.
4	EARNEST MONEY DEPOSIT (EMD)	<p>(a) The bidder shall furnish EMD of Rs. 10,000/- (Rupees Ten Thousand Only) through online payment gateway in the E-Wizard.</p> <p>(b) Bids not accompanied by EMD shall be DISQUALIFIED.</p> <p>(c) The firms who are registered with National Small Industries Corporation (NSIC) / or Small Scale Industrial (SSI)/ Micro & Small Enterprises (MSEs) are exempted from submitting the EMD. NSIC / MSME registered bidders must submit a copy of a valid NSIC / MSME Registration Certificate for exemption of EMD. It will be applicable for those bidders who shall produce their own goods or provide their own services, and not applicable for trading purposes.</p>
5	PERFORMANCE SECURITY	<p>(a) The performance security shall be submitted within FIFTEEN DAYS of receipt of the material by the IITPKD. The successful bidder shall furnish the Performance Security equal to 5% of the order / contract value (excluding the value of annual maintenance charges). The Performance Security shall be valid all along the warranty period and shall extend up to SIXTY DAYS after the date of completion of warranty period. It shall be ensured by the successful bidder that the validity of the Performance Security submitted is extended depending on the date of commencement of the Warranty.</p>

		<p>(b) The performance security shall be a bank guarantee/E-Bank Guarantee (in the format as provided) issued by the Indian Scheduled bank acceptable to the IITPKD or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD.</p> <p>(c) The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration.</p> <p>(d) Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the IITPKD may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.</p>
6	<p>BID PRICES AND CURRENCY</p>	<p>(a) Prices must be quoted separately for each equipment/item identified.</p> <p>(b) Price quoted for equipment/items shall include all the costs associated with packing, local transportation from the point of clearance to IITPKD, insurance, loading, unloading and associated delivery charges. The delivery shall be on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. It is the sole responsibility of the supplier to ensure that the equipment is delivered on DDP mode to IIT Palakkad. An undertaking to this effect as in Annexure-II.</p> <p>(c) Prices quoted by the bidder shall be fixed during the validity of the bid.</p> <p>(d) Prices of the equipment/items shall be quoted in Indian Rupees (INR) / Foreign Currency.</p>
7	<p>LETTER OF CREDIT</p>	<p>(a) Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, IITPKD will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary information shall be provided by the supplier or its authorized agents.</p> <p>(b) In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal:</p> <ul style="list-style-type: none"> • Foreign principal's proforma invoice indicating the commission payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent. • Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business. <p>(c) For imported equipment, a Letter of Credit (LC) shall be opened for 100% CIP price on receipt of the acknowledgment of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order and installation, commissioning, integration, validation and installation report/certification jointly given by the end user and the supplier.</p>

		<p>Any costs associated with the amendments made in the LC as per the request made by the Supplier s should be borne by the supplier.</p> <p>Any fluctuation in rates / rate conversions arising due to the amendment requests made by the supplier shall be on the supplier and not on the institute.</p>
8	PERIOD OF VALIDITY OF BIDS	<p>(d) Bids shall remain valid for a period of 180 DAYS after the date of the deadline for submission of bids prescribed by IITPKD.</p> <p>(e) If the deadline is extended due to unforeseen circumstances, the bid validity shall be deemed to have extended accordingly.</p>
9	TIME FOR SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF THE EQUIPMENTS/ITEMS	<p>(a) The Supplier shall supply the equipment/items within the period specified in the tender document i.e. within 6 WEEKS of signing the purchase order or within the period mutually agreed between IITPKD and supplier. All the equipment and accessories should be delivered at IIT Palakkad, Workshop-2, Nila Campus, Kanjikode West, Palakkad – 678623, Kerala.</p> <p>(b) The Supplier shall thereafter proceed with the installation, commissioning, integration and validation and demonstrate operational acceptance of the equipment/items within the period specified. The equipment/items shall be installed and commissioned by the successful bidder within 20 to 25 days from the date of its receipt.</p> <p>(c) The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.</p> <p>(d) In the event of failure of supply of the item/equipment/items within the stipulated delivery schedule, IITPKD has all the right to purchase the item/equipment/items from other sources on the total risk of the Supplier under the risk purchase clause.</p>
10	PRODUCT UPGRADES	The Supplier shall continue to support and maintain the version/model of the Equipment supplied by upgrading the software and the hardware as and when amendments are carried out in the existing version or the product is upgraded. Whereas upgrades to the software shall be supplied free of cost, the Supplier may charge for upgrade in hardware provided it is of major nature. An upgraded higher version of the instrument and software related with the instrument shall be supplied.
11	PENALTIES	If the Supplier fails to complete any of the activities in accordance with the time specified for it, or any extension of time granted by IITPKD, Liquidated Damages Clause shall be invoked.
12	UP-TIME GUARANTEE/ DOWNTIME PENALTY CLAUSE	<p>(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days) X 365 (days)] basis during the warranty period.</p> <p>(b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis) both during warranty. If downtime exceeds the 5% limit, extension of the warranty period will be twice the excess down time period.</p>
13	LIQUIDATED DAMAGES	If a firm accepts an order and fails to execute the order, in full or part, as per the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and expense of the firm, accepted and failed to execute the order according to stipulations agreed upon. This will also entail the removal of the defaulters' name from the approved/registered list of Suppliers.
14	EFFECT OF FORCE MAJEURE	(a) If the Supplier is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the IITPKD in writing of the occurrence of such event and the circumstances of the event of Force Majeure within FIFTEEN DAYS after the occurrence of such event.

		<p>(b) The Supplier, when affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to IITPKD's right to terminate the Contract.</p> <p>(c) No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall:</p> <ol style="list-style-type: none"> i. Constitute a default or breach of the Contract; ii. Give rise to any claim for damages or additional cost or expense occasioned by the delay or non-performance. <p>(d) If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY DAYS or an aggregate period of more than SIXTY DAYS on account of one or more events of Force Majeure, the IITPKD shall have the right to terminate the Contract by giving a notice to the Supplier.</p>
15	EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE EQUIPMENT	<p>(a) The time limit for supply, installation & commissioning, integration & validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:</p> <ol style="list-style-type: none"> i. Any occurrence of Force Majeure; ii. Any other matter specifically mentioned in the Contract; <p>(b) By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.</p>
16	GOVERNING LAW AND SETTLEMENT OF DISPUTES	<p>(a) The Contract shall be governed by and interpreted in accordance with the laws of India.</p> <p>(b) Any dispute or claim arising out of/relating to this Contract of the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad.</p> <p>(c) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-II.</p> <p>(d) IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.</p>

AWARD OF CONTRACT

1	AWARD CRITERIA	<ol style="list-style-type: none">1. IITPKD will award the Contract to the Bidder whose bid has been determined to be substantially responsive and as per the Order No. P-45021/2/2017-PP(BE-II) dated 16-09-2020 from Department for Promotion of Industry and Internal Trade (Public Procurement Section), Ministry of Commerce and Industry, Govt. of India.2. The bidder should be a Class-I / Class-II Local Supplier meeting the requirement of minimum 20% Local Content in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP(BE-II) dated 16-09-2020.3. The Institute reserves the right to buy different items/quantities from different bidders considering price of individual/group of equipment/items or any other factors as decided by the Committee.
2	AWARD OF PURCHASE ORDER	<ol style="list-style-type: none">1. Prior to the expiration of the period of bid validity, IITPKD will issue the Letter of Intent / Purchase Order to the successful Bidder in writing.2. Any amendment(s) in the Purchase Order will be permitted within SEVEN DAYS of its issuance. No amendments will be permitted beyond this period.3. The Purchase Order will constitute the foundation of the Contract.
3	CONTRACT AGREEMENT	<ol style="list-style-type: none">1. Within SEVEN DAYS of receipt of the Purchase Order, the successful Bidder shall sign and date its copy on each page and return it to the Purchaser.2. Copy of Purchase Order duly signed and dated by the successful Bidder on each page shall constitute the Contract Agreement.
4	CONTRACT DOCUMENTS / AMENDMENT TO CONTRACT	<ol style="list-style-type: none">1. All documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.2. The order of precedence of the Contract documents shall be as follows:<ol style="list-style-type: none">(i) Contract Agreement/Purchase Order(ii) All Forms/Annexures(iii) equipment/items and their requirement(iv) Supplier's Bid(v) Tender Document3. No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract and is signed by a duly authorized representative of each party to the Contract.

REGISTRAR

Name of the Item :	Power Quality Monitoring System
Quantity:	1
Warranty Period:	10 years

TECHNICAL SPECIFICATIONS

The meter shall be 32-bit microprocessor-based with a combination of recording, automation, and communications capabilities. The meter shall include self-diagnostic functions to alarm upon detected failure. Specific requirements are as follows:

S. No.	Items	IIT PKD required Specification
1	Accuracy	The meter shall exceed ANSI C12.20-2015 0.1 and IEC 62053-22:2003 0.2 accuracy class requirements. Accuracy shall be guaranteed for at least 10 years.
2	Power Quality	The meter shall meet IEC 61000-4-30 Class A power quality accuracy for voltage, current, power frequency, supply voltage interruptions, dips and swells, harmonics, interharmonics, unbalance, and flicker.
3	True Four-Quadrant Metering	Energy and demand registers shall report delivered and received active power and energy as well as leading and lagging VARs for delivered and received reactive power and energy.
4	Load Profile Recording	The meter shall include at least 1 GB of nonvolatile memory for data storage and simultaneously record 512 channels for at least 1300 days at 10-minute intervals. Statistical recording shall include minimum, maximum, average, changeover interval, and end-of-interval calculations. The recording rate shall be adjustable from 3 seconds to 2 hours. Recorded data shall be available via SEL, Modbus®, DNP3, MV-90, IEC 61850, and ASCII protocols.
5	Predictive Demand	A predictive demand calculation shall alarm when the demand for a fixed interval will pass a set value.
6	Color Touchscreen Display	The meter shall offer a high-resolution 5-inch color touchscreen display. The display shall present phasor diagrams, power, energy, voltage, current, frequency, harmonics, and maximum/minimum values. The display shall feature a programming interface that allows full configuration of the meter including naming, alarming, scaling, and demand settings. A test mode interface shall present an energy quantity to test, a test pulse mimic, and transformer/line loss calculations.
7	Front-Panel Indicators and Control Pushbuttons	The front panel shall include at least four programmable pushbuttons to enter Test mode, trigger waveform capture, and reset alarms. At least 14 programmable LEDs shall indicate status, alarms, and the presence of voltage.

8	Time-of-Use (TOU) Metering	The meter shall record demand and energy consumption during different time periods based on a user-defined calendar. Programming will allow for 4 seasons, 6 rates, 10 day types, 40 rate schedules, a 20-year calendar, and 15 self-reads.
9	Instrument Transformer Compensation	The meter shall compensate for instrument transformer ratio and phase errors, and shall provide six calibration points for each transformer.
10	Minimum/Maximum Recording	Each phase voltage and current shall have the date and time of the last maximum and minimum value since resetting the maximum/minimum.
11	Sequential Events Recorder (SER)	A chronological report shall record the most recent 80,000 events with 4-ms time-stamp accuracy.
12	Voltage Sag/Swell/Interruption Recording (VSSI)	A VSSI recorder shall capture excursions with 1-ms time-stamp accuracy. At least 130,000 record samples shall adapt sampling rates from a quarter cycle to daily. VSSI summary and detailed reports shall be available less than 5 seconds after the event occurs.
13	Waveform Capture	The meter shall simultaneously capture 512 samples-per-cycle events for a total of 505 seconds from each phase. Available formats shall include filtered, CEV, and full-bandwidth COMTRADE files, which are available 5 seconds after the event subsides. Waveform event reports shall contain data including the trigger bit, digital input, digital output, and device status. The meter shall also report real-time power system disturbances in both time and frequency domains through the software HMI and on the front-panel touchscreen display.
14	Database Integration	The meter shall include an option for centralized data collection software, database, and an API with common data exchange. The centralized software shall include the ability to retrieve COMTRADE, EVE, VSSI, LDP, and SER data from multiple meters and exchange the data through a RESTful API.
15	Harmonic Metering	The meter shall report individual harmonics to the 63rd order, including voltage, current, phase angles, and power magnitudes. The meter shall exceed IEC 61000-4-7 Class I and IEC 61000-4-30 Class A accuracy. Interharmonic values shall encompass 1 Hz to 3800 Hz in 1 Hz bins.
16	Flicker	The meter shall report instantaneous, short-term, and long-term flicker measurement per IEC 61000-4-15.
17	Inputs and Outputs	The meter contains three electromechanical outputs and two digital inputs, standard. Optional inputs and outputs include combinations of electromechanical and solid-state outputs, analog outputs, and digital inputs.
18	Clock	The meter shall have an internal battery-backed clock with 10 ppm or better accuracy and retain time without power for at least 10 years.

19	Time Synchronization	Time synchronization shall include IRIG-B, power line frequency, DNP3, Modbus, MV-90, SNTP, ASCII, and front-panel inputs. Time stamps synchronized to an IRIG-B signal shall have a resolution of 10 μ s.
20	Analog and Math Logic	The meter shall support programmable logic for remote terminal unit (RTU) control and automation. Binary and analog meter data shall be available for Boolean logic calculations and mathematical functions. Boolean logic shall include AND, OR, NOT, rising-edge detection, and falling-edge detection, as well as latches and counters. Mathematical functions shall include add, subtract, multiply, and divide as well as analog compare functions.
21	Communication	The meter shall support as many as ten simultaneous communications sessions via EIA-232 serial, EIA 485/EIA-422 multidrop, USB Type C, infrared, 10/100BASE-T Ethernet, 100BASE-FX Ethernet, or telephone modem.
22	Protocols	The meter shall support simultaneous SEL-ASCII, Modbus, DNP3, IEC 61850 GOOSE and MMS, MV-90, MIRRORING BITS®, IEEE C37.118.2-2011, and binary interleaved communications protocols. The SEL ASCII, Modbus, DNP3, and IEC 61850 protocols shall support at least 2,000 simultaneous analog quantities with user-configurable mapping and scaling.
23	Synchrophasor Measurements	Synchrophasor measurements shall comply with the C37.118.1a-2014 IEEE Standard for Synchrophasor Measurements for Power Systems. The synchrophasor datastream shall allow as many as four user-defined analog quantities and 16 digital status word bits. The Synchrophasor feature shall be P Class compliant and transmit at a data rate as fast as 60 messages per second.
24	IEC 61850 Ethernet Communications	The meter shall incorporate IEC 61850 MMS and GOOSE with as many as 24 GOOSE subscriptions and 6 simultaneous MMS sessions.
25	Software	The meter shall include no-cost settings configurations, data retrieval, and analysis software. The software shall retrieve, display, and store text and graphical reports including VSSI, Load Profile, TOU, and waveform event data without erasing stored meter data. Standard event analysis software shall support waveform event playback and harmonic reporting. The software shall export data in .CSV, .TXT, .HHF, COMTRADE, .CEV, and .BIN file formats.
26	Compliance	The meter shall comply with ANSI C12.20, IEC 61000-4-30, IEC 62052-11, IEC 62053-22, IEC 62053 23, NMI M6-1, and ISO 9001 requirements.
27	Safety	The meter shall comply with UL 508 Seventeenth Edition 2010, C22.2 No. 61010-1-04, CAN/CSA C22.2 No. 142, ANSI/ISA 12.12.01-2015 and CSA C22.2 No. 213-15 Class I Division 2 Hazardous Locations, and CE safety requirements.

28	Service	The device shall include no-cost technical support for the life of the product.
29	Conformal Coating	The device shall have optional conformal coating to protect the circuit boards from harsh environments.
30	Warranty	The device shall include a ten-year warranty for all material and workmanship defects.

UNDERTAKING BY THE BIDDER
(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

We hereby accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEVIATION from the Tender Terms and Conditions.

We hereby accept that the PRICES OF THE EQUIPMENTS/ITEMS QUOTED ARE AS PER THE INCOTERMS 2022 - DDP MODE, IIT PALAKKAD AND CLAUSE NO.6 OF THE TENDER DOCUMENT.

We hereby undertake that there are _____ pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).

We have submitted our principal's exclusive authorization letter which is specific for this tender No. _____ dated _____.

Note: This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority.

ANNEXURE-III

FALL CLAUSE NOTICE CERTIFICATE
(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

This is to certify that we have offered the maximum possible discount to you in our Quotation No. _____ dated _____ (Please do not reveal the prices here, which will lead to outright rejection of your bid).

The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt., /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this.

In case, if the price charged by our firm is found to be more, IIT Palakkad will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

Note: This letter of authority should be on the letterhead of the quoting firm and should be signed by a Competent Authority and having the power of attorney.

ANNEXURE-IV

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

Tender No. _____

To,
M/s. Indian Institute of Technology Palakkad
Ahalia Integrated Campus, Kozhipara,
Palakkad, Kerala 678623

We hereby confirm and declare that we, M/s _____ are not blacklisted/ De-registered / debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services.

For
Company Name and Seal
Authorised Signatory

Note: This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority.

FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA
(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with “Make in India” Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date: _____

I/We _____ S/o, D/o, W/o, _____

Resident of _____

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Order, 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 - BE-II dated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.

Tick (✓) and Fill the Appropriate Category	
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under “ Class-I Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under “ Class-II Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under “ Non-Local Supplier ” category.

For and on behalf of..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.]