

## Notice Inviting Quotation

INDIAN INSTITUTE OF TECHNOLOGY JAMMU  
JAGTI, NH44, NAGROTA, JAMMU (J&K) - 181221

Dated: 30/12/2017

Open Tender Notice No.: IITJmu/EED-002/2017

Indian Institute of Technology Jammu is in the process of purchasing following item(s) as per details as given as under.

<b>Details of the item</b>	<b>Supply of Digital Electronics Lab Equipment</b>
<b>Earnest Money Deposit to be submitted</b>	<b>Rs. 48,000</b>
<b>Warranty</b>	<b>Item 1-4 (5 Years) and Item 5 (1 Year)</b>
<b>Performance security</b>	<b>10% of FOB value</b>

Tender Documents may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/epublish/app> . Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/epublish/app> .The portal enrolment is free of cost. This is an offline tender process where bidders needs to submit physical bids at office of the indenter (Ref. Para 7 of Schedule, Next page).

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Jammu tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document offline on the website <http://eprocure.gov.in/epublish/app> as per the schedule given in the next page.

## SCHEDULE

1.	EMD Amount	Rs. 48,000 (Rupees <b>Forty Eight Thousand</b> only) (By way of demand drafts only. The demand drafts shall be drawn in favor of “Indian Institute of Technology Jammu”. The demand drafts for earnest money deposit must be enclosed in the envelope containing the technical bid.)
2.	Issue of Tender Document	<b>30/12/2017 to 15/01/2018</b>
3.	Last date for receipt of queries	<b>15/01/2018</b>
4.	Date of pre bid meeting <optional>	<b>NIL</b>
5.	Last Date and Time for receipts of Bids	Upto <b>15:00</b> Hrs. on <b>15/01/2018</b>
6.	Opening of Technical Bid	<b>09:00</b> Hrs. on <b>16/01/2018</b>
7.	Place of Bid Submission & Opening of Bids	<b>Committee Room</b> Indian Institute of Technology, Jammu, In front of Janipur Police Station, Paloura, Jammu - 181121
8.	Address of Communication	<b>Dr. Srujana Kagita</b> Indian Institute of Technology, Jammu In front of Janipur Police Station, Paloura, Jammu - 181121
9.	Contact Phone Numbers	(+91)-191-2597433
10.	Fax Number	-
11.	E-mail Address	procurement@iitjammu.ac.in

\*Tender document can also be downloaded (from **30/12/2017** to **15/01/2018**) from IIT Jammu Website ([www.iitjammu.ac.in/tenders](http://www.iitjammu.ac.in/tenders)).

**Department of Electrical Engineering  
Indian Institute of Technology, Jammu  
Paloura, Jammu – 181121**

**NOTICE INVITING QUOTATIONS**

Dated: 30/12/2017

**Subject: Supply of Digital Electronics Lab Equipment**

**Invitation for Tender Offers**

Indian Institute of Technology Jammu invites offline Bids (Technical bid and Commercial bid) from eligible and experienced OEM (Original Equipment Manufacturer) OR OEM Authorized Dealer for **supply, installation & integration of Digital Electronics Lab Equipment** with (warranty period as stated at page #1 of this tender) on site comprehensive warranty from the date of installation of the material as per terms & conditions specified in the tender document, which is available on CPP Portal <http://eprocure.gov.in/epublish/app> .

**TECHNICAL SPECIFICATION:**

Sl. No	Item	Quantity
1	Digital Storage Oscilloscope	15
2	Arbitrary Function Generator	15
3	Triple Channel Power Supply	15
4	5.5 Digit Multimeter	5
5	10x, 100 MHz ,passive voltage probes; covered BNC	30

**Item 1:- Digital Storage Oscilloscope**

SL. No	Technical Particulars	Technical Specs
1	Bandwidth	100MHZ
2	No. of channels	2
3	Sample rate	2GS/s on each channel
4	Record length	2.5K points on all channels
5	Vertical resolution	8 bits
6	Input sensitivity range	2mV to 5V/div
7	Time base range	2.5ns to 50s/div
8	Maximum input voltage	300Vrms CAT II
9	Horizontal Zoom	Horizontally expand or compress a live or stopped waveform

10	Automated measurements	Period, Frequency, Pos Width, Neg Width, Rise Time, Fall Time, Maximum , Minimum , Peak-Peak, Mean, RMS, Cycle RMS, Cursor RMS, Phase, Pos Pulse Cnt, Neg Pulse Cnt, Rise Edge Cn, Fall Edge Cn, Pos Duty, Neg Duty, Amplitude, Cycle Mean, Cursor Mean, Burst Width, Pos Overshoot, Neg Overshoot, Area, Cycle Area, High, Low, Delay RR, Delay RF, Delay FR, Delay FF
11	Arithmetic	Add, subtract and multiply
12	Dual window FFT to simultaneously monitors both the time and frequency domains	Available
13	FFT windows	Hanning, flat top and rectangular
14	Acquisition modes	Peak detect, Sample, Average, Single and Roll
15	Triggers	Edge, Pulse, Video and external
16	Cursors	Available for both amplitude and time
17	Password protected auto set enabling/disabling	Should be Available
18	Frequency counter	Available, dual channel
19	Frequency counter resolution	6 digits
20	Frequency range	10Hz to rated bandwidth
21	Integrated courseware feature	Should be mandatory Available
22	Display	7 inches WVGA TFT color display
23	Connectivity	One USB 2.0 host port for storage and USB2.0 device port for connection to PC
24	GPIB interface	Optionally should be available
25	Wi-Fi Connectivity	Instrument should have Wi-Fi interface which can provide wireless communication capability (i) Control: - can be used as independent standard instrument with front panel control over Wi-Fi. (ii) The courseware contents, as well as instrument firmware, can be updated remotely.

**Item No 2:-Arbitrary Function Generator**

S.no	Technical Particulars	Specifications
1	No of Channels	2
2	Waveforms	Sine, Square, Pulse, Ramp, Noise, and 44 frequently used arbitrary waveforms
3	Sine Wave	
(a)	Frequency Range	1 $\mu$ Hz to 60 MHz
4	Square Wave	
(a)	Frequency Range	1 $\mu$ Hz to 30 MHz
5	Rise/Fall Time( typical)	<10 ns
6	Jitter (RMS), Typical	<500ps
7	Ramp Wave	
(a)	Frequency range	1 $\mu$ Hz to 2 MHz
8	Linearity	$\leq$ 0.1% of peak output at 10% - 90% of amplitude range, at 1 kHz, 1 V p-p , 50% symmetry
9	Symmetry	0.0% to 100.0%
10	Pulse Wave	
(a)	Frequency range	1 $\mu$ Hz to 30 MHz
(b)	Pulse Width	17 ns to 999 ks
11	Edge Transition Time( typical)	<10 ns
12	Overshoot	<5%
13	Jitter (RMS), Typical	<500 ps
14	Noise	
(a)	Frequency Range	50 MHz
15	Arbitrary Waveforms	
(a)	Frequency Range	1 $\mu$ Hz to 30 MHz
(b)	Waveform length	2 to 1M points
(c)	Sample rate	300 MS/s
(d)	Min. Rise/Fall Time( typical)	< 8 ns
16	Amplitude, 50 $\Omega$ Load	1 mVp-p to 10 Vp-p @ $\leq$ 25 MHz

17	Amplitude, Open Circuit	2 mVp-p to 20 Vp-p@ $\leq 25$ MHz
18	Modulations	AM,FM,PM,FSK,ASK,PSK,PWM
19	Frequency Counter	6 digit should be available
20	General	
21	Wi-Fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (I) Control:- can be used as independent standard instrument with front panel control over Wi-Fi.
22	Power Consumption	Less than 40 W
23	Warm-up Time	30 minutes
24	Display	Display shows waveform and all relevant settings in a single glance.

**Item No 3:- Triple Channel Power Supply**

S.no	Technical Particulars	Specifications
1	Power supply should have isolated Channels with independent on/off controls.	Should be Available
2	DC Output rating:	30 V, 30V and 5 V.
3	DC Current for channels:	3 A, 3 A, 3 A
4	Maximum Power:	195 W
5	Load Regulation:	
(a)	Voltage:	$\leq 0.02\% + 4$ mV
(b)	Current:	$\leq 0.2\% + 3$ mA
6	Line Regulation:	
(a)	Voltage:	$\leq 0.02\% + 4$ mV
(b)	Current:	$\leq 0.2\% + 3$ mA
7	Ripple Noise: (20 Hz - 20 MHz)	
(a)	Voltage:	$\leq 1$ mVrms/ $\leq 5$ mVp-p
(b)	Current:	$\leq 6$ mA rms
8	Setting Resolution:	
(a)	Voltage:	10 mV
(b)	Current:	1 mA

9	Setting Accuracy	
(a)	Voltage:	$\leq 0.06\% + 20 \text{ mV}$
(b)	Current:	$\leq 0.2\% + 10 \text{ mA}$
10	Read-back Resolution	
(a)	Voltage:	$\leq 0.06\% + 20\text{mV}$
(b)	Current:	$\leq 0.2\% + 10\text{mA}$
11	Output timer function :	Output timer function (range 1~99999.9S) to independently turn on and turn off channels at specific times or in a specific sequence
12	Store frequently used configurations in any of 30 setup memory locations	Should be Available
13	USB Adapter : TTL interface for USB adapter for easy interfacing to a PC	Should be Available
14	Wi-Fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (I) Control:- can be used as independent standard instrument with front panel control over Wi-Fi

#### **Item No 4:- 5.5 Digit Multimeter**

S.no	Technical Particulars	Specifications
1	Measurement functions	voltage (AC and DC), current (Ac, DC), resistance, temperature and capacitance
2	Resolution	5 ½ bit
3	Voltage ranges	100 mV to 1000V
4	Voltage resolution	1 $\mu\text{V}$
5	Resistance	100 - 100M $\Omega$
6	Resistance resolution	1m $\Omega$
7	Current ranges	10 mA- 10A
8	Current resolution	0.1 $\mu\text{A}$
9	Capacitance ranges	1 nF- 100 $\mu\text{F}$
10	Capacitance accuracy	1%
11	AC CMRR:	70dB (for 1kW unbalance LO lead).

12	Temperature measurement	Direct Thermocouple, RTD, and NTC thermistor temperature measurements
13	Communication Interface	USB and GPIB
14	Measurement speed	Up to 50K reading /s
15	Wi-fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (i) Control: - can be used as independent standard instrument with front panel control over Wi-Fi.

Sl. No.	List of Required Accessories
1.	10x, 100 MHz, passive voltage probes; covered BNC. (Warranty: 1 year)

A complete set of tender documents may be downloaded by prospective bidder free of cost from the website <http://eprocure.gov.in/epublish/app> . Bidder has to make payment of requisite fees (i.e. Tender fees (if any) and EMD) through demand draft only.

## Terms & Conditions Details

<b>Sl. No.</b>	<b>Specification</b>
1.	<b>Due date:</b> The tender has to be submitted off-line before the due date. The offers received after the due date and time will not be considered.
2.	<b>Preparation of Bids:</b> The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid.
3.	<b>EMD (if applicable):</b> The tenderer should submit an EMD amount through demand draft. The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be accepted. The EMD will be refunded without any interest to the unsuccessful bidders after the award of contract. Refer to Schedule (at page 2 of this document) for its actual place of submission.
4.	<b>Refund of EMD:</b> The EMD will be returned to unsuccessful Tenderer only after the Tenders are finalized. In case of successful Tenderer, it will be retained till the successful and complete installation of the equipment.
5.	<b>Opening of the tender:</b> The offline bid will be opened by a committee duly constituted for this purpose. Offline bids (complete in all respect) received along with EMD (if any) will be opened as mentioned at “Annexure: Schedule” in presence of bidders representative if available. Only one representative will be allowed to participate in the tender opening. Bid received without EMD (if present) will be rejected straight way. The technical bid will be opened offline first and it will be examined by a technical committee (as per specification and requirement). The financial offer/bid will be opened only for the offer/bid which technically meets all requirements as per the specification, and will be opened in the presence of the vendor’s representatives subsequently for further evaluation. The bidders if interested may participate on the tender opening Date and Time. The bidder should produce authorization letter from their company to participate in the tender opening.
6.	<b>Acceptance/ Rejection of bids:</b> The Committee reserves the right to reject any or all offers without assigning any reason.
7.	<b>Pre-qualification criteria:</b> (i) Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) on the same and specific to the tender should be enclosed. (ii) An undertaking from the OEM is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well. (Ref. Annexure-II) (iii) OEM should be Nationally/Internationally reputed Company. (iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid. (v) In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. (vi) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
8.	<b>Performance Security:</b> The supplier shall require to submit the performance security in the form of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is stated at page #1 of the tender document within 21 days from the date of receipt of the purchase order/LC and should be kept valid for a period of 60 days beyond the date of completion of warranty period.

9.	<p><b>Force Majeure:</b> The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.</p> <ul style="list-style-type: none"> <li>● For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.</li> <li>● If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.</li> </ul>
10.	<p><b>Risk Purchase Clause:</b> In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.</p>
11.	<p><b>Packing Instructions:</b> Each package will be marked on three sides with proper paint/indelible ink, the following:</p> <ol style="list-style-type: none"> <li>i. Item Nomenclature</li> <li>ii. Order/Contract No.</li> <li>iii. Country of Origin of Goods</li> <li>iv. Supplier's Name and Address</li> <li>v. Consignee details</li> <li>vi. Packing list reference number</li> </ol>
12.	<p><b>Delivery and Documents:</b>  Delivery of the goods should be made within a maximum of 4 weeks from the date of placement of purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:</p> <ol style="list-style-type: none"> <li>1. 4 Copies of the Supplier invoice showing contract number, goods' description, quantity</li> <li>2. unit price, total amount;</li> <li>3. Insurance Certificate if applicable;</li> <li>4. Manufacturer's/Supplier's warranty certificate;</li> <li>5. Inspection Certificate issued by the nominated inspection agency, if any</li> <li>6. Supplier's factory inspection report; and</li> <li>7. Certificate of Origin (if possible by the beneficiary);</li> <li>8. Two copies of the packing list identifying the contents of each package.</li> <li>9. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.</li> </ol>
13.	<p><b>Delayed delivery:</b> If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value / price.</p>
14.	<p><b>Prices:</b> The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of taxes &amp; duties shall be clearly indicated.  <b>In case of imports, the price should be quoted on FOB Basis only.</b> Under special circumstances (eg. perishable chemicals), when the item is imported on CIF/CIP, please indicate CIF/CIP charges</p>

	<p>separately up to IIT Jammu indicating the mode of shipment. IIT Jammu will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.</p> <p>In case of CIF/CIP shipments, kindly provide the shipment information at least 2 days in advance before landing the shipment along with the documents i.e. invoice, packing list, forwarder Name, address, contact No. in India to save demurrage charges (imposed by Indian Customs). Otherwise these charges will be recovered from the supplier/Indian Agent.</p>
15.	<p><b>Progress of Supply:</b> Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:</p> <ol style="list-style-type: none"> <li>1. Quantity offered for inspection and date;</li> <li>2. Quantity accepted/rejected by inspecting agency and date;</li> <li>3. Quantity dispatched/delivered to consignees and date;</li> <li>4. Quantity where incidental services have been satisfactorily completed with date;</li> <li>5. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date;</li> <li>6. Date of completion of entire Contract including incidental services, if any; and</li> <li>7. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).</li> </ol>
16.	<p><b>Inspection and Tests:</b> Inspection and tests prior to shipment of Goods and at final acceptance are as follows:</p> <ul style="list-style-type: none"> <li>• After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such inspection and testing if need is felt. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.</li> <li>• The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.</li> <li>• In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.</li> <li>• Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.</li> </ul>
17.	<p><b>Resolution of Disputes:</b> The dispute resolution mechanism to be applied pursuant shall be as follows:</p> <ul style="list-style-type: none"> <li>• In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration &amp; Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, Indian Institute of Technology (IIT) Jammu and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.</li> </ul>

	<ul style="list-style-type: none"> <li>• In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.</li> <li>• The venue of the arbitration shall be the place from where the order is issued.</li> </ul>
18.	<b>Applicable Law:</b> The place of jurisdiction would be Jammu (J&K) INDIA.
19.	<b>Right to Use Defective Goods</b> If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
20.	<b>Supplier Integrity</b> The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
21.	<b>Training</b> The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
22.	<b>Installation &amp; Demonstration</b> The supplier is required to done the installation and demonstration of the equipment within one month of the arrival of materials at the IIT Jammu site of installation, otherwise the penalty clause will be the same as per the supply of materials. In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. IIT Jammu will not be liable to any type of losses in any form.
23.	<b>Insurance:</b> For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. <b>In case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance. If orders placed on CIF/CIP basis, the insurance should be up to IIT Jammu.</b>
24.	<b>Incidental services:</b> The incidental services also include: <ul style="list-style-type: none"> <li>• Furnishing of 01 set of detailed operations &amp; maintenance manual.</li> <li>• Arranging the shifting/moving of the item to their location of final installation within IIT Jammu premises at the cost of Supplier through their Indian representatives.</li> </ul>
25.	<b>Warranty:</b> <ol style="list-style-type: none"> <li>(i) Warranty period shall be (as stated at page #1 of this tender) from date of installation of Goods at the IIT Jammu site of installation. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site.</li> <li>(ii) The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination.</li> </ol>

	<p>The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.</p> <p>(iii) The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned. The comprehensive warranty will commence from the date of the satisfactory installation/commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the components.</p> <p>(iv) After the warranty period is over, Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC) up to next two years should be started. The AMC/CMC charges will not be included in computing the total cost of the equipment.</p>
26.	<p><b>Governing Language</b> The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.</p>
27.	<p><b>Applicable Law</b> The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.</p>
28.	<p><b>Notices</b></p> <ul style="list-style-type: none"> <li>• Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address.</li> <li>• A notice shall be effective when delivered or on the notice's effective date, whichever is later.</li> </ul>
29.	<p><b>Taxes</b> Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.</p>
30.	<p><b>Duties</b> IIT Jammu is exempted from paying custom duty under notification No.51/96 (partially or full) and necessary "Custom Duty Exemption Certificate" can be issued after providing following information and Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute, no certificate will be issued to third party: a) Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists) b) Forwarder details i.e. Name, Contact No., etc.</p> <p>IIT Jammu is exempted from paying Excise Duty and necessary Excise Duty Exemption Certificate will be provided for which following information are required. b) Quotation with details of Basic Price, Rate, Tax &amp; Amount on which ED is applicable c) Supply Order Copy d) Proforma-Invoice Copy.</p>
31.	<p><b>Payment:</b></p> <p>i. For Indigenous supplies, 100% payment shall be made by the Purchaser within 2 weeks through RTGS/NEFT after delivery, inspection, successful installation, commissioning and acceptance of the equipment at IIT Jammu in good condition and to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee as specified in Clause 8 of tender terms and conditions.</p>

	<p>ii. For imported items Payment will be made through irrevocable Letter of Credit (LC). Letter of Credit (LC) will be established in favor of foreign Supplier after the submission of performance security. The letter of credit (LC) will be established on the exchange rates as applicable on the date of establishment. For Imports, LC will be opened for 100% FOB/CIF value. 80% of the LC amount shall be released on presentation of complete and clear shipping documents and 20% of the LC amount shall be released after the installation and demonstration of the equipment at the INST site of installation in faultless working condition for period of 60 days from the date of the satisfactory installation and subject to the production of unconditional performance bank guarantee as specified in Clause 8 of tender terms and conditions.</p> <p>iii. Indian Agency commission (IAC), if any shall be paid after satisfactory installation &amp; commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents, subject to DGS&amp;D registration for restricted items.</p> <p>iv. All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.</p>
32.	<b>User list:</b> Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided. (Ref. Annexure-III)
33.	<p><b>Manuals and Drawings</b></p> <p>(i) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.</p> <p>(ii) The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.</p> <p>(iii) Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.</p>
34.	<b>Application Specialist:</b> The Tenderer should mention in the Techno-Commercial bid the availability and names of Application Specialist and Service Engineers in the nearest regional office. (Ref. to Annexure-III)
35.	<p><b>Site Preparation:</b> The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.</p> <p>The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.</p>
36.	<p><b>Spare Parts</b></p> <p>The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <p>ii. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and</p> <p>iii. In the event of termination of production of the spare parts:</p> <p>iv. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and</p> <p>v. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.</p> <p>Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.</p>

37.	<p><b>Defective Equipment:</b> If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms &amp; conditions, IIT Jammu may consider "Banning" the supplier.</p>
38.	<p><b>Termination for Default</b>  The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:</p> <ol style="list-style-type: none"> <li>i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or</li> <li>ii If the Supplier fails to perform any other obligation(s) under the Contract.</li> <li>iii If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</li> </ol> <ul style="list-style-type: none"> <li>● For the purpose of this Clause: <ol style="list-style-type: none"> <li>i. “<b>Corrupt practice</b>” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.</li> <li>ii. “<b>Fraudulent practice</b>” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;”</li> </ol> </li> <li>● In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.</li> </ul>
39.	<p><b>Shifting:</b> Within 1-2 years once our new Academic Block at Jagti Campus will be ready, the supplier has to shift and reinstall the instrument free of cost (if required).</p>
40.	<p><b>Downtime:</b> During the warranty period not more than 5% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 5% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint with in the business hours.</p>
41.	<p><b>Disputes and Jurisdiction:</b> Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within Jammu.</p>
42.	<p><b>Compliance certificate:</b> This certificate must be provided indicating conformity to the technical specifications. (Annexure-I)</p>
43.	<p><b>Validity:</b> The quoted rates must be valid for a period for 60 days from the date of closing of the tender. The overall offer for the assignment and bidder(s) quoted price shall remain unchanged during the period of validity. If the bidder quoted the validity shorter than the required period, the same will be treated as unresponsive and it may be rejected.</p>

## COMPLIANCE SHEET

## TECHNICAL SPECIFICATION

<b>Item 1:- Basic Digital Oscilloscope</b>			
SL. No	Technical Particulars	Technical Specs	Compliance (Y/N)
1	Bandwidth	100MHZ	
2	No. of channels	2	
3	Sample rate	2GS/s on each channel	
4	Record length	2.5K points on all channels	
5	Vertical resolution	8 bits	
6	Input sensitivity range	2mV to 5V/div	
7	Time base range	2.5ns to 50s/div	
8	Maximum input voltage	300Vrms CAT II	
9	Horizontal Zoom	Horizontally expand or compress a live or stopped waveform	
10	Automated measurements	Period, Frequency, Pos Width, Neg Width, Rise Time, Fall Time, Maximum , Minimum , Peak-Peak, Mean, RMS, Cycle RMS, Cursor RMS, Phase, Pos Pulse Cnt, Neg Pulse Cnt, Rise Edge Cn, Fall Edge Cn, Pos Duty, Neg Duty, Amplitude, Cycle Mean, Cursor Mean, Burst Width, Pos Overshoot, Neg Overshoot, Area, Cycle Area, High, Low, Delay RR, Delay RF, Delay FR, Delay FF	
11	Arithmetic	Add, subtract and multiply	
12	Dual window FFT to simultaneously monitors both the time and frequency domains	Available	
13	FFT windows	Hanning, flat top and rectangular	
14	Acquisition modes	Peak detect, Sample, Average, Single and Roll	
15	Triggers	Edge, Pulse, Video and external	
16	Cursors	Available for both amplitude and time	
17	Password protected auto set enabling/disabling	Should be Available	
18	Frequency counter	Available, dual channel	
19	Frequency counter resolution	6 digits	
20	Frequency range	10Hz to rated bandwidth	

21	Integrated courseware feature	Should be mandatory Available	
22	Display	7 inches WVGA TFT color display	
23	Connectivity	One USB 2.0 host port for storage and USB2.0 device port for connection to PC	
24	GPIB interface	Optionally should be available	
25	Wi-Fi Connectivity	Instrument should have Wi-Fi interface which can provide wireless communication capability (i) Control: - can be used as independent standard instrument with front panel control over Wi-Fi. (ii) The courseware contents, as well as instrument firmware, can be updated remotely.	

### **Item No 2:-Arbitrary Function Generator**

S.no	Technical Particulars	Specifications	Compliance (Y/N)
1	No of Channels	2	
2	Waveforms	Sine, Square, Pulse, Ramp, Noise, and 44 frequently used arbitrary waveforms	
3	Sine Wave		
(a)	Frequency Range	1 $\mu$ Hz to 60 MHz	
4	Square Wave		
(a)	Frequency Range	1 $\mu$ Hz to 30 MHz	
5	Rise/Fall Time( typical)	<10 ns	
6	Jitter (RMS), Typical	<500ps	
7	Ramp Wave		
(a)	Frequency range	1 $\mu$ Hz to 2 MHz	
8	Linearity	$\leq$ 0.1% of peak output at 10% - 90% of amplitude range, at 1 kHz, 1 V p-p , 50% symmetry	
9	Symmetry	0.0% to 100.0%	
10	Pulse Wave		
(a)	Frequency range	1 $\mu$ Hz to 30 MHz	
(b)	Pulse Width	17 ns to 999 ks	
11	Edge Transition Time( typical)	<10 ns	

12	Overshoot	<5%	
13	Jitter (RMS), Typical	<500 ps	
14	Noise		
(a)	Frequency Range	50 MHz	
15	Arbitrary Waveforms		
(a)	Frequency Range	1 $\mu$ Hz to 30 MHz	
(b)	Waveform length	2 to 1M points	
(c)	Sample rate	300 MS/s	
(d)	Min. Rise/Fall Time( typical)	< 8 ns	
16	Amplitude, 50 $\Omega$ Load	1 mVp-p to 10 Vp-p @ $\leq$ 25 MHz	
17	Amplitude, Open Circuit	2 mVp-p to 20 Vp-p@ $\leq$ 25 MHz	
18	Modulations	AM,FM,PM,FSK,ASK,PSK,PWM	
19	Frequency Counter	6 digit should be available	
20	General		
21	Wi-Fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (I) Control:- can be used as independent standard instrument with front panel control over Wi-Fi.	
22	Power Consumption	Less than 40 W	
23	Warm-up Time	30 minutes	
24	Display	Display shows waveform and all relevant settings in a single glance.	

<b>Item No 3:- Triple Channel Power Supply</b>			
S.no	Technical Particulars	Specifications	Compliance (Y/N)
1	Power supply should have isolated Channels with independent on/off controls.	Should be Available	
2	DC Output rating:	30 V, 30V and 5 V.	
3	DC Current for channels:	3 A, 3 A, 3 A	
4	Maximum Power:	195 W	
5	Load Regulation :		

(a)	Voltage:	$\leq 0.02\% + 4 \text{ mV}$	
(b)	Current:	$\leq 0.2\% + 3 \text{ mA}$	
6	Line Regulation :		
(a)	Voltage:	$\leq 0.02\% + 4\text{mV}$	
(b)	Current:	$\leq 0.2\% + 3 \text{ mA}$	
7	Ripple Noise: (20 Hz - 20 MHz)		
(a)	Voltage:	$\leq 1\text{mVrms}/\leq 5\text{mVp-p}$	
(b)	Current:	$\leq 6\text{mA rms}$	
8	Setting Resolution :		
(a)	Voltage:	10 mV	
(b)	Current:	1 mA	
9	Setting Accuracy		
(a)	Voltage:	$\leq 0.06\% + 20 \text{ mV}$	
(b)	Current:	$\leq 0.2\% + 10 \text{ mA}$	
10	Read-back Resolution		
(a)	Voltage:	$\leq 0.06\% + 20\text{mV}$	
(b)	Current:	$\leq 0.2\% + 10\text{mA}$	
11	Output timer function :	Output timer function (range 1~99999.9S) to independently turn on and turn off channels at specific times or in a specific sequence	
12	Store frequently used configurations in any of 30 setup memory locations	Should be Available	
13	USB Adapter : TTL interface for USB adapter for easy interfacing to a PC	Should be Available	
14	Wi-Fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (I) Control:- can be used as independent standard instrument with front panel control over Wi-Fi	

#### **Item No 4:- 5.5 Digit Multimeter**

S.no	Technical Particulars	Specifications	Compliance (Y/N)
1	Measurement functions	voltage (AC and DC), current (Ac, DC), resistance, temperature and capacitance	
2	Resolution	5 ½ bit	

3	Voltage ranges	100 mV to 1000V	
4	Voltage resolution	1 $\mu$ V	
5	Resistance	100 - 100M $\Omega$	
6	Resistance resolution	1m $\Omega$	
7	Current ranges	10 mA- 10A	
8	Current resolution	0.1uA	
9	Capacitance ranges	1 nF- 100uF	
10	Capacitance accuracy	1%	
11	AC CMRR:	70dB (for 1kW unbalance LO lead).	
12	Temperature measurement	Direct Thermocouple, RTD, and NTC thermistor temperature measurements	
13	Communication Interface	USB and GPIB	
14	Measurement speed	Up to 50K reading /s	
15	Wi-fi Connectivity ( Mandatory )	Instrument should have Wi-Fi interface which can provide wireless communication capability (i) Control: - can be used as independent standard instrument with front panel control over Wi-Fi.	

Sl. No.	List of Required Accessories	Compliance (Y/N)
1.	10x, 100 MHz, passive voltage probes; covered BNC. (Warranty: 1 year)	

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

**Signature of Bidder**

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Organization Name:** \_\_\_\_\_

**Contact No. :** \_\_\_\_\_

**<< Organization Letter Head >>  
DECLARATION SHEET**

We, \_\_\_\_\_ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

The prices quoted in the financial bids are subsidized due to academic discount given to IIT Jammu.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	NAME & ADDRESS OF THE Vendor/ Manufacturer / Agent
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of Tender Fees)	
8 UTR No. (For Tender Fee)	
(In case of on-line payment of EMD)	
9 UTR No. (For EMD)	

**(Signature of the Tenderer)**

**Name:**

**Seal of the Company**



## Bid Submission

### Offline Bid Submission:

The Offline bids (complete in all respect) must be sealed in **two** Envelopes as explained below:-

<b>Envelope – 1</b> (Following documents to be provided as single PDF file)		
Sl. No.	Documents	Content
1.	Technical Bid	Compliance Sheet as per Annexure - I
2.		Organization Declaration Sheet as per Annexure - II
3.		List of organizations/ clients where the same products have been supplied (in last two years) along with their contact number(s). (Annexure-III)
4.		Technical supporting documents in support of all claims made at Annexure-I (Annexure-IV)
<b>Envelope – 2</b>		
Sl. No.	TYPES	Content
1.	Financial Bid	Price bid

# FINANCIAL BID

**Department of Electrical Engineering  
Indian Institute of Technology Jammu  
Jagti, NH44, Nagrota, Jammu (J&K) – 181221**

**Date: XX/XX/XXXX**

**Subject: Purchase of < >(Following format is used for imported items)**

S. No.	Currency	Description of Item & Specification	Qty. in Units	Unit Price (a)	Agency Commission (If applicable) (b)	Discount (c)	Ex-works price (d=a+b-c)	Packing + Handling + DOC + Inland Frieght (e)	FOB/FC AAirport t Price (f=d+e)	Insurance + Frieght (g)	CIF Price (f+g)
1											

**Note: At any circumstances, it is the responsibility of the foreign supplier to hand over the material to our forwarder at the origin airport after completing all the inland clearing. No Ex-works consignment will be entertained.**

**For indigenous items please quote as per following format.**

S. No.	Description of Item & Specification	Qty. in Units	Unit Price in Rs.	GST%	Total Price in Rs.
1.					
2.					

**Note: The above financial template should be strictly followed. Any deviation from the above template (in terms of description and specification of the item) may lead to cancellation of the tender.**