



# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित

सैक्टर 81, नॉलेज सिटी, प.ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब 140306

## INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

(Established by Ministry of Human Resource Development, Govt. of India)

Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab

PAN No. - AAAAI1781K GST No- 03AAAAI1781K1ZT

• Phone : +91-172-2240086 & 2240121 • Fax : +91-172-2240124, 2240086 • <http://www.iisermohali.ac.in> • Email: [stores@iisermohali.ac.in](mailto:stores@iisermohali.ac.in)

CPPP/Institute Website

IISERM(805)17/18Pur.

Dated: 21<sup>st</sup> July 2017

### E-TENDER NOTICE

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** {Technical and Commercial} for the supply of UPS 20 and 24 KW as per technical specification given below and BOQ list the original manufacturer/supplier at CPPP i.e. <https://eprocure.gov.in/eprocure/app>. Tender documents may please be downloaded from the E-procurement portal website <https://eprocure.gov.in/eprocure/app> & Institute website [www.iisermohali.ac.in](http://www.iisermohali.ac.in).

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(Mukesh Kumar)  
Assistant Registrar (S&P)



# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

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Tender Ref.- IISERM(805)17/18Pur

Dated :- 21<sup>st</sup> July 2017

### Critical Date Sections

| Sr. | Description                                | Date                         | Time         |
|-----|--|------------------------------|--------------|
| 1.  | Tender Publishing Date and time            | 21 <sup>st</sup> July 2017   | 6:00pm       |
| 2.  | Tender Document download start Date & Time | 21 <sup>st</sup> July 2017   | 6:00pm       |
| 3.  | Bid Submission start Date & Time           | 21 <sup>st</sup> July 2017   | 6:00pm       |
| 4.  | Bid Submission End date and Time           | 10 <sup>th</sup> August 2017 | Upto 11:00am |
| 5.  | Tender opening Date and Time               | 11 <sup>th</sup> August 2017 | At 11.30 am  |

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** {Technical and Commercial separately} for the supply of following items from the original manufacturer/supplier at CPPP i. e. <https://eprocure.gov.in/eprocure/app>. Tender documents may please be downloaded from the E-procurement portal website <https://eprocure.gov.in/eprocure/app> & Institute website [www.iisermohali.ac.in](http://www.iisermohali.ac.in). Tender fee in shape of DD/Banker Cheque of Rs 500/- (Non-refundable) and EMD of Rs 40,000/- should be submitted by DD /Banker Cheque/FDR/ Bank Guarantee in favour of the Registrar, IISER Mohali payable at Mohali. However, scanned copy of the both tender fee and EMD should be upload on website along with technical bid part. The hard copy of the same in original to be send to the address mentioned below duly superscribing the supply/work name and reference/ tender ID on the envelope and same must reach before opening the bid and if not received within due date the bid will be rejected summerly.

### **The Original EMD and tender fee should be sent to:**

Assistant Registrar (S&P)

Indian Institute of Science Education and Research Mohali

Sector-81, Knowledge City, SAS Nagar, Mohali, Punjab,

India, Pin: 140306

**Non-receipt of original EMD and tender fee will lead to rejection of tender.**

Item Details: -

| Sr. No. | Description of items                        | Qty. |
|---------|---|------|
| 1       | UPS 20 KW ( As per specification enclosed)  | 01   |
| 2       | UPS 24 KW ( As per specification enclosed)  | 01   |
| 3       | UPS 20 KVA ( As per specification enclosed) | 01   |
| 4       | UPS 20 KVA ( As per specification enclosed) | 01   |

**Sr. No- 01**

| 1. UPS requirement of 2 Hours Backup<br>(Ultra-noise free) |  |  |
|--|--|--|
| SLN  | Specification Description  | Specification Values   |
|  | Load   | 20 KW  |
|  | Backup Time  | 2 Hours with full load   |
|  | Rack Mountable Modular UPS <ul style="list-style-type: none"> <li>Separate compatible Racks for Batteries and UPS</li> <li>Modules should be HOT Swappable</li> <li>Must have standalone static bypass capabilities or an independent module of same features</li> </ul> | Required   |
|  | UPS Technology   | Double conversion, IGBT based technology, Dual DSP Controlled UPS with isolation transformer (inbuilt/external).                 |
|  | Redundancy   | 20KW of Redundancy   |
|  | Parallel Expansion: <ul style="list-style-type: none"> <li>Should be capable of paralleling multiple modules for expansion and redundancies.</li> <li>Scalable up to 40KW or more</li> </ul>   | Required   |
|  | Maintenance Bypass arrangement should be provided  | Required   |
|  | Generator compatible   | Required   |
|  | Protection: <ul style="list-style-type: none"> <li>Overload and short circuit at output of UPS</li> <li>Over/under voltage at input &amp; output</li> <li>Deep Discharge at battery terminals.</li> <li>Over temperature</li> </ul>                                      | Required   |
|  | INPUT:<br>Voltage<br>Frequency<br>Total Harmonic Distortion (at full load)<br>Power factor   | 3Phase<br>350-470 VAC<br>45-60Hz<br>Less than 1%<br>Not Less than 0.8  |
|  | OUTOUT:<br>Nominal Output Voltage<br>Output voltage regulation<br>Power Factor<br>Nominal Output Frequency<br>Wave form<br><br>Overload  | 3Phase<br>380 to 415 VAC (Selectable)<br>. +/-1%<br>Unity<br>50Hz +/- 0.05 Hz<br>Sine Wave<br><br>110% 10 min,<br>150% for 60sec |
|  | A special Care should be taken to minimize output ripples  |  |
|  | Should be able to take care the phase imbalance due to asymmetric loads over output phases   | Required   |

|  |   |  |
|--|---|--|
|  | Emergency Power Off<br>Both Local and Remote  | Required   |
|  | Logging/Monitoring: <ul style="list-style-type: none"> <li>• Must have LED/LCD display</li> <li>• Should have data logging capabilities</li> <li>• Communication Port</li> <li>• Should be able to registered event logs</li> </ul>   | Required<br><br>SNMP and Ethernet                                  |
|  | Monitoring Parameters: <ul style="list-style-type: none"> <li>• Voltage: mains bypass, phase to phase &amp; phase to neutral</li> <li>• Current: On each phase for mains, bypass &amp; load</li> <li>• Load :On each Phase.</li> <li>• Battery: Current, voltage, remaining time utilization</li> <li>• Load: In KVA and KW on each phase</li> <li>• Load power factor.</li> <li>• Frequency</li> <li>• UPS unit temperature</li> </ul> | Required   |
|  | Batteries: <ul style="list-style-type: none"> <li>• Rack Mountable, VRLA Sealed Maintenance Free (SMF), Independent Racks for Batteries. No battery should be kept in the main UPS rack.</li> <li>• Battery terminals should be of type inter-connecting cables complete in all respect</li> </ul>  | 12V Cells with more than 150 AH                                    |
|  | Battery Housing   | Separate racks for the batteries, compact and space saving         |
|  | Bidder must provide a detail calculation of power factors battery backup time & AH capacity against UPS KVA/KW rating.  | The bidder without the calculation may invite the disqualification |
|  | Bidder must provide a detail plans of installation, space and other requirements.<br><br>Bidder must also provide detail specification as per this tender (not manual)<br><br>Bidder must also provide a detail Circuit diagram should be provided in the technical bid   | Required   |
|  | Preventive Maintenance for entire period of Warranty  | In 6 Months without downtime                                       |

**Sr. No. 02**

| <b>2. UPS requirement of 30 minutes Backup</b> |  |  |
|--|--|--|
| SLN  | Specification Description  | Specification Values   |
|  | Load   | 24 KW  |
|  | Backup Time  | 30 minutes with full load  |
|  | Rack Mountable Modular UPS <ul style="list-style-type: none"> <li>• Separate compatible Racks for Batteries and UPS</li> <li>• Modules should be HOT Swappable</li> <li>• Must have standalone static bypass capabilities or an independent module of same features</li> </ul> | Required   |
|  | UPS Technology   | Double conversion, IGBT based technology, Dual DSP Controlled UPS with isolation transformer (inbuilt/external). |

|  |   |  |
|--|---|--|
|  | Redundancy  | 24KW of Redundancy   |
|  | Parallel Expansion: <ul style="list-style-type: none"> <li>Should be capable of paralleling multiple modules for expansion and redundancies.</li> <li>Scalable up to 75KW or more</li> </ul>  | Required   |
|  | Maintenance Bypass arrangement should be provided   | Required   |
|  | Generator compatible  | Required   |
|  | Protection: <ul style="list-style-type: none"> <li>Overload and short circuit at output of UPS</li> <li>Over/under voltage at input &amp; output</li> <li>Deep Discharge at battery terminals.</li> <li>Over temperature</li> </ul>   | Required   |
|  | INPUT:<br>Voltage<br>Frequency<br>Total Harmonic Distortion (at full load)<br>Power factor  | 3 Phase<br>350-470 VAC<br>45-60Hz<br>Less than 1%<br>Not Less than 0.8   |
|  | OUTOUT:<br>Nominal Output Voltage<br>Output voltage regulation<br>Power Factor<br>Nominal Output Frequency<br>Wave form<br><br>Overload   | 3Phase<br>380 to 415 VAC (Selectable)<br>. +/-1%<br>Unity<br>50Hz +/- 0.05 Htz<br>Sine Wave<br><br>110% 5 min,<br>150% for 60sec |
|  | Should be able to take care the phase imbalance due to asymmetric loads over output phases  | Required   |
|  | Emergency Power Off<br>Both Local and Remote  | Required   |
|  | Logging/Monitoring: <ul style="list-style-type: none"> <li>Must have LED/LCD display</li> <li>Should have data logging capabilities</li> <li>Communication Port</li> <li>Should be able to registered event logs</li> </ul>   | Required<br><br>SNMP and Ethernet  |
|  | Monitoring Parameters: <ul style="list-style-type: none"> <li>Voltage: mains bypass, phase to phase &amp; phase to neutral</li> <li>Current: On each phase for mains, bypass &amp; load</li> <li>Load :On each Phase.</li> <li>Battery: Current, voltage, remaining time utilization</li> <li>Load: In KVA and KW on each phase</li> <li>Load power factor.</li> <li>Frequency</li> <li>UPS unit temperature</li> </ul> | Required   |
|  | Batteries: <ul style="list-style-type: none"> <li>Rack Mountable, VRLA Sealed Maintenance Free (SMF), Independent Racks for Batteries. No battery should be kept in the main UPS rack.</li> <li>Battery terminals should be of type inter-connecting cables complete in all respect</li> </ul>  | 12V Cells with more than 150 AH  |
|  | Battery Housing   | Separate racks for the batteries,  |

|  |   |  |
|--|---|--|
|  |   | compact and space saving   |
|  | Bidder must provide a detail calculation of power factors battery backup time & AH capacity against UPS KVA/KW rating.  | The bidder without the calculation may invite the disqualification |
|  | Bidder must provide a detail plans of installation, space and other requirements.<br><br>Bidder must also provide detail specification as per this tender (not manual)<br><br>Bidder must also provide a detail Circuit diagram should be provided in the technical bid | Required   |
|  | Preventive Maintenance for entire period of Warranty  | In 6 Months without downtime                                       |

| Sr. No | ITEMS     | BRAND                                       |
|--------|-----------|---|
| 1      | UPS       | APC/DELTA/EMERSON/GUTOR/MERLIN GERIN/VERTIV |
| 2      | Batteries | Amaron/Exide/Rocket                         |
| 3      | Cables    | Havells/L&T/Polycab/Finolex                 |
| 4      | MCCB      | ABB/Schneider/L&T                           |
| 5      | Panel BOX | EMCO/ETE/ISPL                               |

### **Sr. No. 03**

| Requiremen                                      | Job  |   |  | Back up time          | IWD  |
|---|--|---|--|-----------------------|--|
| 3 phase in<br>1 phase out<br>Warranty:<br>5 yrs | (800mJ) Laser head, Laser Driver, 30kg Servo Motor, water Chiller DAQ, etc | 20KVA ONLINE UPS<br>TRUE ONLINE - DOUBLE CONVERSION<br>3 PHASE INPUT : .....<br>1 PHASE OUTPUT: 230V( AC SIGNAL OF FREQUENCY 50 Hz or 60 Hz)<br>WITH INBUILT/INPUT ISOLATIO<br>TRANSFORMER<br>WITH LCD DISPLAY TO MONITOR<br>UPS AND DATA LOGGING<br>GENERATOR COMPATIBLE<br>CAPABLE OF PARALLEL REDUNDANCY<br>WITH EXTERNAL SMF BATTERIES (12-26Ah OR MORE)<br>INCLUDING RACKS AND INTERCONNECTORS<br>Harmonic filter at input/output<br>Harmonic filter at input/output | 3- 5 <sup>th</sup> order<br>Harmonic filter must be considered | 45 minutes to 1 hours | Enclosure Housing for UPS next to laser section but outside back door. AC in the housing for maintaining working temp. |

**Sr. No 04-**

| Requirement   | Job  |  | Back up time          | IWD  |
|---|--|--|-----------------------|------|
| <b>3 Phase in</b><br><b>3 Phase out</b><br><br><b>Warranty:</b><br><br><b>5 yrs</b> | Lab accessories includes 3D printer, PC, LED Light etc, small laser, | <b>20KVA ONLINE UPS</b><br>TRUE ONLINE - DOUBLE CONVERSION Low ahrmonic distortion <2% Or ripple filter<br><b>3 PHASE INPUT : .....</b><br><b>3 PHASE OUTPUT: 230V</b><br><b>( AC SIGNAL OF FREQUENCY 50 Hz or 60 Hz)</b><br>WITH INBUILT/INPUT ISOLATIO TRANSFORMER EMC, WITH LCD DISPLAY TO MONITOR UPS AND DATA LOGGING GENERATOR COMPATIBLE CAPABLE OF PARALLEL REDUNDANCY WITH EXTERNAL SMF BATTERIES (12-26Ah OR MORE) INCLUDING RACKS AND INTERCONNECTORS | 45 minutes to 1 hours | same |

**SUBMISSION OF TENDER**

- I. All bid/ tender documents are to be uploaded online at Central Public Procurement portal i.e. <https://eprocure.gov.in/eprocure/app> only and in the designated cover/ part on the website against tender ID. Tenders/ bids contains technical catalogue, copies of work executed, copies of the certification and past experience and shall be accepted only through online mode and no manual submission of the same shall be entertained except tender fee and EMD. Late tenders will not be accepted.
- II. The online bids shall be opened at the office of the Assistant Registrar (P&S), IISER Mohali, on above given date and time. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be attended on the next working day at same time and place. IISER Mohali will not be responsible for any error like missing of schedule data while downloading by the Bidder.
- III. The bidder shall upload the tender documents duly filled in and stamped by the authorized signatory on each and every page. Tender not submitted/uploaded in the prescribed form and as per the tender terms and conditions shall be liable for rejection.
- IV. The bidder shall upload scanned copy of the PAN Card, GST registration number duly signed and stamped.
- V. E-procurement system ensures locking on the scheduled date and time. The system will not accept any bid after the scheduled date and time of submission of bid.

**INSTRUCTIONS**

1. The Online bids should be submitted directly by the original manufacturer/supplier, If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company for quoting the price otherwise such quotation will be rejected.

2. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute. Before the deadline for submission of the online bid, IISER Mohali reserves the right to modify the tender document terms and conditions. Such amendment/modification will be notified on website against said tender ID
3. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supplier from outside India should mention the Ex-works/FOB/FCA/CIF/CIP price clearly. Conditional tenders will be summarily rejected.
4. In case of Ex-godown terms the amount of packaging forwarding freight etc should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payments towards any purchase, Letter of credit can be opened if required.
5. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY under notification no-51/96 –CUSTOM DATED 23/7/1996 AND DSIR REGISTRATION NO TU/V/RG/-CDE(1062)/2011 DT. 02/09/2011 / EXCISE NOTIFICATION NO. 10/97- CENTRAL EXCISE DT. 01.03.1997.
6. Tax: This Institute is not exempted from the payment of GST. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable. Please also provide/upload the copy of PAN card, GST number duly self-attested.
7. The delivery period should be specifically stated. Earlier delivery will be preferred
8. The firms are requested to provide/upload detailed description and specifications together with the detailed drawings, printed leaflets and literature of the article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
9. Validity of offer: 90 days. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee @ 10 % of the value of supply order as per norms may be sought from the firms.
10. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved by the IISER Mohali. For any corrigendum and addendum please be checked the website <https://eprocure.gov.in/eprocure/app> and <http://www.iisermohali.ac.in>
11. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

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(Mukeshkumar)  
Assistant Registrar (S&P)