

## SINGLE TENDER ENQUIRY

**Tender No: IITH/EE/KKUCHI/2020/T320**

**Date: 19/01/2021**

Indian Institute of Technology Hyderabad invites online bids (e-tender) in Single Bid (Technical + Financial) System for the following item

Item Description	Qty
Item Name: <b>LI and ORAN Offload Software IP</b>	01
Annexure: <b>Technical Specifications as per Annexure A</b>	

The Tender Document can be downloaded from <https://mhrd.euniwizarde.com> OR Institute website- <https://iith.ac.in/tenders>

The bid is to be submitted online only through the E-procurement portal of <https://mhrd.euniwizarde.com> up to the last date and time of submission of tender.

### Schedule of Dates

Sr.No	Particulars	Date	Time
1	Date of Online Publication/Download of Tender	19/01/2021	05:00 pm
2	Bid Submission Start Date	19/01/2021	05:30 pm
3	Bid Submission Close Date	02/02/2021	05:30 pm
4	Opening of Bids	03/02/2021	11:00 am

No manual bids will be accepted. All quotation should be submitted online through E-procurement portal of <https://mhrd.euniwizarde.com>

Any queries relating to the process of online bid submission or queries relating to e-tender Portal in general may be directed to the Helpdesk Support - Phone No. 011-49606060. Mail id: - [helpdeskeuniwizarde@gmail.com](mailto:helpdeskeuniwizarde@gmail.com)

## **INSTRUCTIONS FOR ONLINE BID SUBMISSION**

The Tender Document can be downloaded from <https://mhrd.euniwizarde.com> OR Central Public Procurement (CPP) Portal <https://eprocure.gov.in/epublish/app> OR Institute website- <https://iith.ac.in/tenders>.

The bidders are required to submit soft copies of their bids electronically on the <https://mhrd.euniwizarde.com> using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the Portal, prepare their bids in accordance with the requirements and submitting their bids online.

More information useful for submitting online bids may be obtained at: <https://mhrd.euniwizarde.com>

### **GUIDELINES FOR REGISTRATION:**

1. Bidders are required to enrol on the e-Procurement Portal with clicking on the link “Online Bidder Enrolment” on the e-tender Portal by paying the Registration fee of Rs.2000/- +Applicable GST.
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidders.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile. Or bidders can contact help desk for getting the DSC.
5. Only valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.
7. The scanned copies of all original documents should be uploaded in pdf format on portal <https://mhrd.euniwizarde.com>
8. After completion of registration payment, bidders need to send their acknowledgement copy on help desk mail id [helpdeskeuniwizarde@gmail.com](mailto:helpdeskeuniwizarde@gmail.com) for activation of their account.

## **SEARCHING FOR TENDER DOCUMENTS**

1. There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.
2. Once the bidders have selected the tenders they are interested in, you can pay the form fee and processing fee (NOT REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fee tenders will be moved to the respective 'requested' Tab. This would enable the e- tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

## **PREPARATION OF BIDS**

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF formats. Bid Original documents may be scanned with 100 dpi with Colour option which helps in reducing size of the scanned document.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GST, Annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" available to them to upload such documents.
5. These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

## **SUBMISSION OF BIDS**

1. Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document as a token of acceptance of the terms and conditions laid down by IIT Hyderabad.
3. Bidder has to select the payment option as “e-payment” to pay the tender fee / EMD as applicable and enter details of the instrument.
4. In case of Bank Guarantee (BG) bidder should prepare the BG as per the instructions specified in the tender document. The BG in original should be posted/couriered/given in person to the concerned official of IIT Hyd before the Online Opening of Technical Bid. In case of non-receipt of BG in original by the said time, the uploaded bid will be summarily rejected.
5. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white Colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
6. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bid click “Complete” (i.e. after Clicking “Submit” in the portal <https://mhrd.euniwizarde.com>), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.
9. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.



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**For any clarification in using <https://mhrd.euniwizarde.com>**

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to e-tender Portal in general may be directed to the Helpdesk Support.

Please feel free to contact euniwizard helpdesk (as given below) for any query related to e- tendering  
- Phone No. 011-49606060. Mail id: - [helpdeskeuniwizarde@gmail.com](mailto:helpdeskeuniwizarde@gmail.com) / Mr Gagan : 8448288987  
& Mr Vijay : 8448288989

## **TERMS & CONDITIONS**

1. It may kindly be noted that your bid should:

a) be in **single part** .

b) accompany Bid Security of Rs **Not Applicable**

c) on the event of award of Contract in your favour, you need to submit a Performance Bank Guarantee valid for a period of 2 Months beyond the Warranty period of **Not Applicable**.

2. The acceptance of the quotation will rest with the competent authority, who does not bind himself to accept the lowest quotation and reserves the right to himself to reject, or partially accept any or all the quotations received without assigning any reason.

3. Price quoted should be as per the BoQ and valid for a minimum period of 60 days from the date of opening of the quotation. The rate quoted should be free delivery at IITH Stores, Kandi 502285. The Price quoted should be in INR only.

4. Complete specification with manufacturer's name and address should be given while quoting. Literature/Pamphlets should also be enclosed wherever applicable

5. In cases of agents quoting on behalf of the manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:

i) The manufacturer directly or through one agent on his behalf; or

ii) Agent on behalf of only one principal.

6. IIT Hyd is registered with Dept. of Scientific & Industrial Research, Govt. of India and concessional customs duty and GST & IGST are leviable vide notification no. 54/2002-Customs on all imports covered under notification No.51/96-Customs dated 23.07.1996, Notification No.47/2017-Integrated Tax (Rate) and Notification No.45/2017-Central Tax (Rate) both dated 14th November, 2017.

7. In case the items in the enquiry are covered by any rate contract or running contract finalised by any other state or central Government, it should be specified in your quotation and accepted contract rates should also be mentioned.

8. Delivery period required for supplying the material should be invariably specified in the quotation. The offered delivery period shall have to be strictly adhered to in case an order is placed.

9. Liquidated Damages Clause for delays: The applicable rate is 0.1% per week and maximum deduction is 10% of the contract price.

10. If the deliveries are not maintained and due to that account the purchaser is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier
11. Our normal payment terms are 100% (hundred percent) within 30 (thirty) days on receipt and acceptance of material at our site in good condition. Please inform your Bank details for RTGS payment. No payment will be made in Advance. Kindly Note.
12. Warranty & Maintenance contract: The supplier shall warranty equipment, system components for a minimum period of as per OEM years following satisfactory installation and commissioning. The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. All expenditure including government levies on account of the replacement are to be borne by the supplier/agent.
13. Installation & Testing: The installation shall be completed within a week from the date of intimation regarding the arrival of the equipment in the institute. The installed system shall be performance tested at our premises in accordance with the manufacturer's/supplier's recommendation/specifications. Tests shall demonstrate the proper operation of the instrument and all components.
14. All supplies are subject to inspection and approval before acceptance. Manufacturer warranty certificates and manufacturer/Government approved lab test certificate shall be furnished along with the supply, wherever applicable
15. Kindly furnish your PAN & GST Number etc. in your quotation for our records.
16. Conditional tenders will not be accepted.
17. ARBITRATION: a) Unless otherwise specified, in all cases of disputes which cannot be settled by mutual negotiations, the disputes or differences shall finally be settled and binding on both parties by arbitration in conformity with the rules of Indian Arbitration Act, 1940. All disputes or differences what so ever arising between the parties out of relating to the construction, meaning and operation or effect of the general terms and conditions including the Purchase Order or the breach thereof shall be settled by Arbitration Act, 1940 and the award made in pursuance thereof shall be binding on the parties.  
b) Performance of the purchase order shall continue during arbitration and any subsequent proceedings.  
c) The Jurisdiction and Venue of arbitration shall be Hyderabad. The Arbitrator will be the Director, IIT Hyderabad, or his nominee.
28. All disputes shall be settled in the courts of Hyderabad/Sangareddy only

## ANNEXURE A

### TECHNICAL SPECIFICATIONS

#### Specifications Required:

##### **L1 and ORAN Offload Software IP**

The IP should enable the DU to comply to ORAN fronthaul interface (eCPRI 7-2x) to make DU box compatible to Multivendor network arrangement.) The IP should support all the necessary software for ORAN C/U/S/M planes as part of the framer and de-framer modules, eCPRI framer/de-framer. PTP support also must be included.

This IP on DU be used for offloading LDPC encoding & decoding operations enhancing hardware efficiency. This IP should support the Encoding/Decoding + Rate/De-Rate Matching operations in relation to the 3gpp Layer 1 signal processing. This IP should interface with baseband (L1) software stack. This IP design should be available with BBDeV Application for L1 Offload to Xilinx FPGA/ T1 card. The following features to be supported which are 3GPP 5G NR compliant

For the downlink transmission

- CRC Attach module(CRC24B)
- LDPC Encoder
- Rate matcher

For the uplink transmission

- 8 bits LLR input width
- De-rate matcher
- LDPC Decoder
- Hybrid automatic repeat request (HARQ) block
- CRC verify and Detach module.
- Configurable input precision
- Supports Early termination.

The SW package ought to support the following:

- a) BBDEV APIs for FEC Offload (with all the APIs mentioned in user guide)
- b) BBDEV APIs for ORAN functionality (C/U/S/M planes)
- c) FPGA IP for 5G NR FEC (rate matching, de-rate matching, CRC etc)
- d) Source code DPDK
- e) Bitstream files for the ORAN and FEC FPGAs

**For any technical query related to enquiry you may to contact**

Dr. Kiran Kuchi - Email: [kkuchi@ee.iith.ac.in](mailto:kkuchi@ee.iith.ac.in)

**For Commercial query**

Mr. Suresh Nair - Assistant Registrar Email : [ar.purchase@iith.ac.in](mailto:ar.purchase@iith.ac.in)

Mr. Jagadeshwar Rao B – Deputy Registrar Email : [dr.snp@iith.ac.in](mailto:dr.snp@iith.ac.in)

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