

Technology Innovation in Exploration and Mining Foundation

IIT (ISM) DHANBAD



E-TENDER DOCUMENT

Notice Inviting Tender (NIT)

for

Supply and Installation of

“Smart and Virtual Classroom Solution”

Tender No.: **TEXMiN-Purchase-23-24-28**

Date: 21 July 2023

Bid Submission deadline: 11th August 2023, 1:00 P.M.

Chief Executive Officer, TEXMiN Foundation

3rd Floor, i2h Building, IIT (ISM), Dhanbad

DHANBAD -826004 (INDIA)

www.texmin.in, www.iitism.ac.in, purchase@texmin.in

GSTIN : 20AAICT1465H1ZK

NOTICE INVITING TENDER**Subject: Supply and Installation of Smart and Virtual Classroom Solution .**

Quotations are invited for the supply and installation of the following items at Technology Innovation in Exploration and Mining Foundation, IIT (ISM) Dhanbad

Sl. No.	Description of Materials	Unit	Quantity	Indenting Deptt./section
1.	Supply and Installation of Smart and Virtual Classroom Solution (Detailed Specification given in Annexure – I)	No.	01 Set	TEXMiN Foundation

Tender Schedule

Sl. No.	Particulars	Date & Time
1.	Tender Application Cost	NIL
2	Bid Security Cum Security Deposit	Rs. 50,000.00 (Rs. Fifty Thousand Only)
3.	Start date and time for submission of tenders	21.07.2023 at 1:00 P.M.
4.	Last date and time for submission of tenders	11.08.2023 at 1:00 P.M.
5.	Last date for sending pre-bid queries	10.08.2023 at 1:00 P.M.
6.	Date and time of opening of tenders	11.08.2023 at 4.00 P.M.

1. You are requested to quote your lowest rates for the supply of the above items in the price bid.
2. **Tender documents and bids should be submitted through offline mode only.**

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CHAPTER 1

Instructions to Bidders

IIT (ISM) Dhanbad has been entrusted with the establishment of a mining technology innovation hub in Exploration under the National Mission for Interdisciplinary Cyber-Physical Systems (NM-ICPS). As mandated under the framework of the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) by DST, Govt. of India**, Technology Innovation Hub (TIH) at IIT (ISM), Dhanbad is aimed at becoming the nodal center heading the CPS-based innovation activities in Exploration and Mining. IIT (ISM) Dhanbad intends to procure the Supply and installation of a Supply and Installation of “**Smart and Virtual Classroom Solution**” to enrich its teaching and research facility at Dhanbad.

Reputed manufacturers or authorized distributors are invited to submit their bid for the “Supply and Installation of “**Smart and Virtual Classroom Solution**” for TEXMiN, IIT (ISM), Dhanbad as per this tender document in a Two-Bid System: - (a) Techno-Commercial (also termed as technical bid) bid (Part-1) consisting of all technical details of the item along with commercial terms and conditions, BSDF (Bill Security Declaration Form) and (b) Price bid (Part-2) indicating price for their items mentioned in the technical bid. All instructions and terms and conditions must be followed, failing which bid(s) will liable to be rejected.

INSTRUCTIONS

1. Offer should be submitted under TWO-BID system i.e. “Techno-commercial bid” and “Price bid” in offline mode only. Tender should be dropped in the tender box kept in the office of Purchase Section, TEXMiN Foundation, IIT (ISM), Dhanbad– 826004 (Jharkhand, India) only. Bids may be submitted by Speed Post / Registered post / Courier / By Hand in sealed cover only within the due date of tender submission. TEXMiN Foundation IIT(ISM), Dhanbad will not accept such bid if delivered/submitted to the office of the CEO, TEXMiN Foundation, IIT (ISM), Dhanbad after the submission deadline and such bids will be treated as Late bids / non-responsive bids. It will be the sole responsibility of the bidders that their bid should be submitted/delivered as per bid submission deadline. TEXMiN Foundation, IIT (ISM) Dhanbad will not be responsible for any delay or transit loss or late delivery of bids to the office of the CEO. All bids / correspondences should be sent to the following address only: “CEO, TEXMiN Foundation, 3rd Floor, 12h Building, IIT (ISM), Dhanbad, P.O. – Indian School of Mines (ISM), DHANBAD – 826004 (Jharkhand, India)”.
2.
 - a) **In a tender, either the Indian agent on behalf of the principle/ OEM and the Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.**
 - b) **If an agent submit bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.**
3. Bidder(s) must submit GST Certificate / TIN and Scanned Copy of PAN with the bid.
4. The offer must be submitted offline in **Two-Bid** system only.
5. The tenderers who are currently registered and shall continue to remain registered during the tender validity period with Central Purchase Organisation (CPO) or as a Micro and Small Enterprise

(MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Start-up as recognised by Department for Promotion of Industry and Internal Trade (DPIIT), are exempted from payment of Tender Fee and Earnest Money Deposit (EMD) / Bid Security. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration with CPO or as a MSE or Start-up, as the case may be). Micro & Small Enterprises must attach Registration Certificate issued by DIC / KVIC / KVIB / Coir Board / NSIC / Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as updated Udyog Aadhaar Memorandum / Acknowledgment.

6. Bid document(s) and all enclosures must contain the signature and seal of the authorised representative of the bidder.
7. The bidder quoting for item(s) as per this tender should be the registered to provide the item/services with the appropriate government authority. Copy of registration certificate should be submitted with the tenders.
8. The Bank/RTGS detail on the letter-head of the bidder(s) must be submitted along with the technical BID.
9. The Eligibility, Purchase Preference and other conditions will be as detailed in Order No. P45021/2/2017-P(BE-II) dated : 04th June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI. Bidders are mandatory to indicate whether they are under Class – I local supplier, Class – II local supplier or Non- local supplier. **Non -Local supplier is not eligible to bid in this tender.** Bid received from Non-Local supplier will be treated as non-responsive and will not be considered for evaluation. Please refer terms and condition for details.
10. After opening of the price bid no query pertaining to technical aspects will be entertained.

CHAPTER 2

Terms and Conditions

The offer must comprise of the following, failing which it will be treated as a non-responsive bid and hence will be rejected:

1. The bids under the Two-Bid System will consist of two parts as per the following details:-

- a) Techno-Commercial bid (Part 1) consisting of all technical details along with required EMD amount, cost of the tender form (if any), technical offer (catalog/brochure/specifications etc.), supportive documents related to eligibility criteria (Copies of documents/Certificates like GST Registration/ PAN/ Authorization letters/ PO or Work order copies as proof of supply/work done, tax related documents etc.) along with ALL applicable forms / annexures of this tender except (Price Schedule). All the pages included as Tender Document should be legible, neatly numbered and signed by authorized person with official seal of the Firm as acceptance of the terms and conditions. Offers with Counter Conditions will be liable for Rejection. No information regarding price should be mentioned in this part. Any price indication in the Technical Bid will be summarily rejected. Techno-commercial bid to be submitted offline mode.
- b) Price bid (Part 2) indicating price for the items/services mentioned in tender documents. Price Schedule exactly as per format duly filled and to be submitted offline mode.

In stage-one, only the Techno-Commercial (Part 1) shall be opened and evaluated. In stage-two, the Price bids (Part 2) of only the technically qualified and acceptable offers will be opened, for further evaluation.

Important Note: Offers submitted not in line with the above guidelines will be liable for rejection.

2. All relevant technical specifications/details of offered items, drawings, printed technical leaflets, and commercial details which are necessary to ensure that offer is complete in all respects should be attached with the techno-commercial bid documents.
3. A 'Compliance Statement' (Form-5) along with status of compliance.
4. All applicable forms duly filled, signed and sealed must be submitted along tender documents in bid. The bidder is expected to examine all instructions, forms, terms and specifications in the Bid Document. Failure to furnish all information required as per the tender document or submission of a bid not substantially responsive to the tender document in all respect will be at the Bidder's risk & responsibility and may result in rejection of their bids.
5. TEXMiN, IIT(ISM), Dhanbad does not bind itself to offer any explanation to those bidders whose Technical Bids have not been found acceptable by the Evaluation Committee of the Institute.
6. Following documents have to be furnished by the bidders with the techno-commercial bids (part-1):
 - (a) Technical literature/catalog with the detailed specification of the material
 - (b) Satisfactory performance certificate from their customers for same/similar supply/service must be enclosed along with the technical bid.

- (c) A copy of this tender document must be signed and sealed on all pages by the bidder(s) accepting the instructions and terms & conditions of the NIT and must be attached with the BID.
- (d) All relevant / applicable forms as per tender documents.
7. The Bidder shall indicate on the appropriate price schedule form (provided with the Tender in the Price Bid), the unit prices of the goods / services it proposes to supply under the contract.
8. Price should be quoted exactly as per the format as mentioned. Multiple rates for a single item/variable rates unless solicited in the tender will not be accepted and would lead to rejection of offer. Price bids with conditions /Counter conditions are liable for rejection. Detailed Break up of charges may please be furnished. In case all-inclusive price is quoted without detailed price break up, then TEXTMiN, IIT (ISM) Dhanbad will not be able to consider re-imbursement of any increase in statutory levies, if any.
9. Bid Security, BSDF with the bid (part-1). Bid received without BSDF in part-1 (techno-commercial bid) will be rejected.

The bid security shall be in Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

- a. A bank guarantee issued/confirmed by a Scheduled Commercial Bank in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Scheduled commercial bank in India; or
- b. Fixed Deposit receipt pledged in favour of the **Technology Innovation in Exploration & Mining Foundation, IIT (ISM), Dhanbad**
- c. Through RTGS/NEFT;
- d. Bid Securing Declaration (as per Form-1)

9.1 The bid security may be forfeited:

- a. If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- b. In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

10. **Performance Security or Performance Bank Guarantee (PBG):-** The successful bidder(s), on whom order will be placed, has to submit a performance security of 3% of the total order value at the earliest as per PO terms before release of any payment. Performance security has to be submitted in the form of Bank Guarantee/Demand Draft/FDR from any Nationalized/Scheduled commercial Bank in favour of the Technology Innovation in Exploration & Mining Foundation, IIT (ISM), Dhanbad. Performance security should remain valid for a period of two months beyond the date of completion of all contractual obligations of the successful bidder(s). No interest will be payable by TEXTMiN, IIT (ISM) Dhanbad on the Performance Security deposited. In case the

contractor fails to provide satisfactory service, the Performance Security submitted by the bidder(s) is liable to be forfeited. An undertaking to this is to be submitted within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security (PS).

The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled.

12.1 In case of submission of Bank Guarantee, the bidder should ensure that the concerned bank sends a copy of Bank Guarantee to TEXMiN, IIT(ISM), Dhanbad immediately through Registered Post/Speed post/courier/email Chief Executive Officer or, TEXMiN Foundation, 3rd Floor, i2h, IIT (ISM) Dhanbad/ (purchase@texmin.in).

11. Validity Period: -

The validity period of the tender should be clearly specified. It must be at least for **180 (One Hundred Eighty) days** from opening of the Technical bid.

In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (by post, fax or e-mail). The bid security provided shall also be suitably extended failing which the bid would be summarily ignored. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

12. Finalization criteria: L1 bidder will be decided on Overall L1 basis i.e. on **"Supply and Installation of Smart and Virtual Classroom Solution"**

13. Award of purchase order/Contract: Order will be placed on the selected party after evaluation and approval of the competent authority. However, Chief Executive Officer, TEXMiN, IIT (ISM) Dhanbad reserves the right to cancel/discontinue this order at any point of time, with a notice to the supplier.

14. Warranty:

- a. All the active components must carry 03 years comprehensive warranty.
- b. The equipment should carry OEM warranty with next business day service resolution commitment.
- c. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- d. Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

15. Comprehensive Annual Maintenance Contract / Annual Maintenance Contract (AMC/CAMC): The charges towards AMC/CAMC should be provided separately for extension of warranty for additional years (which is beyond the normal warranty period) in the price bid if applicable.

16. Denial Clause: That no increases in price on account of any statutory increase in or fresh Imposition of customs duty, excise duty, Sales Tax, CST, VAT or on account of any other taxes/duty, including custom duty, liveable in respect of the Stores specified in the said contract which takes place after original delivery period; shall be admissible on such of the said Stores, as are delivered after the said delivery period.

That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after original delivery period shall be admissible on such of the said Stores as are delivered after the said delivery period.

- 17. Delivery Period:** As time is the essence for this procurement, hence the ordered materials/work complete in all respects are required to be delivered and installed within 30 days from issue of Purchase Order / Work Order to successful bidder. Terms of Delivery will be F.O.R. TEXMiN, IIT (ISM), Dhanbad only.
- 18. Liquidated Damage:** Liquidated damages of 1% per week for the delayed period subject to maximum of 5% of the total basic value of the order shall be deducted from the invoice of the supplier. Earliest/expected delivery period should be clearly indicated.
- 19. Inspection:** Inspection shall be carried out at TEXMiN, IIT (ISM), Dhanbad after arrival of the materials and decision of the TEXMiN, in this regard shall be final.
- 20. Rejection and Replacement:** Rejection, if any, shall be notified to the supplier within 30 days of receipt and inspection of the material/workmanship. Rejected materials/work is to be removed by the supplier at his own risk and cost from TEXMiN, IIT (ISM) Campus within 15 days of intimation of rejection. Defective Supplies are required to be replaced within 15 days of the removal of the rejected materials/work.
- 21. Risk Purchase:** TEXMiN, IIT (ISM) shall be at liberty to realize from the supplier the differential amount, if any, which it shall have to incur on purchase of the material/work at higher price(s) from elsewhere in the market, if the supplier, due to their fault, fails to supply the ordered quality and quantity of the material/work within the stipulated time.
- 22. Conditional offer / counter condition** will not be accepted.
- 23. Payment:** Payment may be released through RTGS / online payment mode against complete execution of the purchase order (PO) and submission of all the required documents as per the order preferably within 30 days after satisfactory supply, inspection, installation/commissioning & acceptance and on submission of pre-receipted tax invoice, delivery challan, warranty certificate and installation report in triplicate and Performance Bank Guarantee. The invoice should be duly certified by the Chief Executive Officer of TEXMiN, IIT (ISM), Dhanbad to which supply is made or any other TEXMiN, IIT (ISM) official authorized for this purpose. Advance payment may not be released. Payment will be released through bank/ RTGS/Wire transfer after statutory deductions.
- 24. Any payment** will be released only after satisfactory completion of the work/installation, Submission as well as confirmation from issuing bank of the PBG and certified bill(s) / invoice(s) along with Warranty Certificate.
- 25. All communications** are to be addressed to the Chief Executive Officer, TEXMiN, 3rd Floor, i2h, IIT (ISM), Dhanbad through Email (purchase@texmin.in) quoting the Tender No. and Date.
- 26. TEXMiN, IIT (ISM), Dhanbad** reserves the right to accept or reject or cancel any or all tender notice or bid(s) or order(s) at any stage without assigning any reason thereof.
- 27. For any dispute,** the place of jurisdiction shall be Dhanbad (Jharkhand, India) only.

- 28. Governing Law:** The order, placed, will be the contract between the successful bidder(s) and TEXMiN, IIT (ISM), Dhanbad and shall be governed by the LAWS of India and under the contract shall be taken by the parties only in Dhanbad (Jharkhand, India) to competent jurisdiction.
- 29.** Bid(s) shall be as per tender document only. If submitted in any other form / format, the same shall be rejected. All pages must be numbered properly and there must be seal and sign of the bidder(s) on all the pages of its bid.
- 30.** The bid is liable to be rejected if complete information is not given therein, or if the particulars and data (if any) asked for in the Schedule to the tender are not filled-in properly.
- 31.** The successful bidder(s) will identify TEXMiN, IIT (ISM), Dhanbad, in case of any damage or liability, which may arise on account of any act or omission directly/indirectly attributable to the bidder(s).
- 32.** Dispute, if any arising out of providing the said service(s) shall be settled mutually or arbitration by sole Arbitrator to be appointed by the Chief Executive Officer, TEXMiN, IIT (ISM), Dhanbad at Dhanbad, mutually agreed as per the provisions of the Indian arbitration and Conciliation Act, 1996 and the Rules framed there under. The award passed by the said sole Arbitrator, will be binding upon the parties. The arbitration proceedings shall be held at Dhanbad only.
- 33.** The bidder(s) should be registered with Income Tax, GST etc. and to enclose the copies of the relevant certificate along with the technical bids. The agency must be authorized by an appropriate government authority to deliver the items/services at the IIT (ISM) Dhanbad.
- 34.** The successful bidder(s) will ensure that its employees/staff/personnel would strictly follow all the security instructions and rules and regulations of TEXMiN, IIT (ISM), Dhanbad during their visit in the campus.
- 35.** Necessary corrigendum(s), if required, may be issued at any stage, which must be acceptable to the bidder(s). Any corrigendum will be published on our website www.texmin.in or www.iitism.ac.in. Bidder(s) must be in touch with our website www.texmin.in, www.iitism.ac.in It will be sole responsibility of the bidder(s)s that they will go through the corrigendum(s) published, if any, on our website www.texmin.in or www.iitism.ac.in and submit its tender accordingly.
- 36.** Shortlisted bidder(s) may be called for presentation / demonstration / meeting at TEXMiN, IIT (ISM), Dhanbad office with a short notice (Minimum seven days' time). Request from the bidder(s) to change the date and time of presentation/demonstration / meeting will not be accepted. If the bidder(s) will not attend for the same, then their bid(s) will be treated as non-responsive and hence the bid(s) will not be considered for further process.
- 37.** Price bids will be opened for those bidder(s) who are shortlisted and declared as technically qualified bidder(s) by the Committee of the TEXMiN, IIT (ISM), Dhanbad. In this regard, the decision of TEXMiN, IIT (ISM), Dhanbad will be final and binding to all the bidder(s).
- 38.** Part supply of the Purchase Order / Work Order is not acceptable unless until it is explicitly mentioned in Purchase Order / Work Order.
- 39.** Bid complete in all respect must be submitted through applicable mode before submission deadline / last date & time for submission of the bids. The bids will be opened as per IIT(ISM) rules. In case bid opening-date is a holiday/declared as a holiday, then next working date will be

the opening date of tender. Submission deadline or bid opening date & time will not be changed upon any request from the bidder side. However, it may be changed as per TEXTMiN, IIT(ISM) rules. In this regard, decision of the TEXTMiN, IIT(ISM), Dhanbad will be final and binding to all the bidders.

40. For the items / services, the bidders must ensure the required quality, quantity, materials, dimensions & other parameters (HSN Code etc.) and quote accordingly. In case items / services provided are not same as quoted/ordered, the claim for payment shall not be accepted. No payment, claims for such items / services shall be released. In this regard, decision of TEXTMiN, IIT (ISM), Dhanbad will final and binding to the bidders.
41. TEXTMiN, IIT (ISM) Dhanbad at its discretion may change the quantity/quality/parameters/upgrade the criteria/drop any item(s) or part thereof at any stage. In case of any dispute, the decision of TEXTMiN, IIT(ISM) shall be final and binding on the bidders/tenderers.
42. TEXTMiN, Dhanbad reserves the right to accept or reject any or all the bids in part or in full without assigning any reason. The decision of the competent authority of TEXTMiN, IIT (ISM), Dhanbad will be final and binding to the bidder(s).
43. Professional(s) to be deployed by the successful bidder(s) for the supply of the item / installation / execution of the work in order to provide the item(s) /service(s) as per order must be well qualified.
44. *If any fraudulent document submitted by the vender/firm is detected at any stage during the procurement or after the procurement, the institute will take appropriate legal action against the vendor/firm including the recovery of two times of purchase order/award of work and equipment/items will not be returned.*
45. All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as non-responsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
- The Bidder is not eligible.
 - The Bid validity is shorter than the required period.
 - The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
 - Bidder has not agreed to give the required performance security or has not furnished the bid security.
 - The goods quoted are sub-standard, not meeting the required specification, etc.
 - Against the schedule of Requirement (incorporated in the tender enquiry), the bidder has not quoted for the entire requirement as specified in that schedule.
 - The bidder has not agreed to some essential condition(s) incorporated in the tender enquiry.
46. **Purchase Preference (GoI no. P-45021/2/2017-PP (BE-II), dated 04/06/2020) P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021**

A. Subject to the provisions of above Order and to any specific instructions issued by the

Nodal Ministry or in pursuance of GoI no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

B. In the procurements of goods or works, which are covered by para 3(b) of order no. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure.

- (i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
- (ii) If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference (the margin of purchase preference shall be 20%), and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

C. In the procurements of goods or works, which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
- ii) If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- iii) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' 'within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

D. "Class-II local supplier" will not get purchase preference in any procurement, Technology Innovation in Exploration and Mining Foundation, IIT (ISM), DHANBAD

E. Non -Local supplier is not eligible to bid in this tender. Bid received from Non-Local supplier will be treated as non-responsive and will not be considered for evaluation.

F. Definitions: As prescribed in DIPP Order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021:

- **'Local content'** means the amount of value added in India which shall, unless otherwise prescribed by the Noda! Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- **'Class-I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under said Order.
- **'Class-II local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under said Order.
- **'Non -Local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under above Order.

G. Non local supplier is not eligible to bid in this tender. Bid received from non-local supplier will be treated as non- responsive and will not be consider for evaluation.

49. Bid Prices: Bidders are requested to note that they should necessarily submit their price bids in the format provided and no other format is acceptable. Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods it proposes to supply under the contract. Bidders are required to quote each and every item in price bid. Failing to this bid may be liable for rejection.

Note: TEXMiN, Dhanbad will not be responsible or liable to pay if bidder fails to mentioned packing, forwarding, freight, insurance charges, taxes etc. in its price bid.

- 50. Pre-bid Conference (PBC):** A Pre-bid Conference may be held, if indicated in invitation to bid. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate the purchaser the proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach the purchaser as indicated in invitation to bid. **Bidder may also email pre-bid queries to purchase@texmin.in highlighting tender no., tender date, tender name while communicating.** The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. The proceeding of the Pre-Bid Conference would be hosted on the website of the purchaser. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website after the Pre- bid Conference, in order to enable them take cognizance of the revised tender conditions.
- 51.** If the successful bidder(s) commits breach of any of the above or Order's terms and conditions or is not able to deliver the item / provide the services / complete the work on time, the contract will be cancelled and security deposit shall be forfeited and a damage liability at the discretion of TEXMiN, IIT (ISM), Dhanbad will be imposed on the bidder(s).
- 52. Eligibility in case of Land Border Share:** I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as per order F.N. 6/18/2019-PPD dated 23 July 2020.

CHAPTER 3: Other Forms**Form-1****Bid-Securing Declaration Form**

Date: _____

Bid No. _____

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of two year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of: (insert complete name of Bidder) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Form-2
Contract Form

To,
The Chief Executive Officer
Technology Innovation in Exploration & Mining Foundation
3rd Floor, i2h Building,
IIT (ISM) Dhanbad, Dhanbad– 826004

Ref.: Your Notice Inviting Tender No. TEXTMiN-Pur-23-24-28, Dated: 21 July 2023

Sir/ Madam,

1. I/We have gone through all Chapters of the tender document such as Instructions and Terms and conditions, minimum eligibility criteria, schedule of requirements, Specifications and allied technical details etc. as enlisted by you in your Notice Inviting Tender for the subject under reference.
2. I/We, hereby confirm that we have understood all the above and confirm my/our commitment to abide by them.
3. If our tender is accepted, I/we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the tender document.
4. I/We agree to keep our tender valid for acceptance for a period upto as required in tender documents or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender upto the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. I/We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.
5. I/We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.
6. I/We hereby declare that all statements/details made in this tender are true, complete and correct to the best of my knowledge and belief. I/We understand that in the event of any information being found false or incorrect at any stage or we do not satisfy any of the stated criteria, our offer is liable to be cancelled automatically and IIT (ISM), Dhanbad may take an action against this firm for such false information including legal action.

Documents Required	Document No. (Submit a copy of the same)
Photo identity of Authorized signatory (i.e. PAN Card/Voter ID/Aadhaar Card/Official ID Card)	
GSTIN of Bidder	
PAN of Bidder	

Date:

Signature:

Name of Authorized Signatory:

Designation of Authorized Signatory:

Name of Bidder:

Address of Bidder:

Seal of Bidder:

Technology Innovation in Exploration and Mining Foundation, IIT (ISM), DHANBAD

Form-3**FORMAT FOR BANK GUARANTEE FOR PERFORMANCE SECURITY**
(PERFORMANCE BANK GUARANTEE)

To,
The Chief Executive Officer
Technology Innovation in Exploration & Mining Foundation
3rd Floor, i2h Building,
IIT (ISM) Dhanbad, Dhanbad- 826004

Reference :P.O.No._____dated_____

Dear Sir,

GUARANTEE NO. _____ date: _____

AMOUNT OF GUARANTEE Rs. _____

GUARANTEE COVERS FROM _____ TO _____

LAST DATE FOR LODGEMENT OF CLAIM: _____

This deed of Guarantee executed by the (____name of the Bank) constituted under _____ Act, _____ having its Central Office at _____ and amongst other places a branch at _____ (hereinafter referred to as "The Bank") in favour of The TECHNOLOGY INNOVATION IN EXPLORATION & MINING FOUNDATION, IIT (ISM), Dhanbad-826004 (hereinafter referred to as "The Beneficiary" for an amount of not exceeding Rs _____ (Rs. _____) at the request of M/s _____ (hereinafter referred to as the "Contractor(s)"/"Supplier(s)").

In consideration of The Chief Executive Officer, TEXMiN, IIT (ISM), Dhanbad-826004 (hereinafter called the Purchaser) having entered into an agreement vide their Purchase Order No. _____ dated _____ with M/s _____ (hereinafter called the Supplier) to carry out the supply and installation of the _____ (Name of the equipment's /work/Job)

at their TEXMiN, IIT (ISM), Dhanbad as per their above order, the supplier agreed to execute a Bank Guarantee for ____% of the supply order value viz. Rs. _____ (Rupees _____) towards Performance Warranty obligation for a period of ____ year(s) from _____ to _____.

We, the _____ Bank, _____ Branch (hereinafter referred to as a Guarantor) at the request of the supplier, irrevocably undertake to indemnify and to keep indemnify the Company without any demur to the extent of Rs. _____ (Rupees _____)

_____) in the event of the aforesaid supplier failing to comply the Warranty Obligation as per the agreed terms to the full satisfaction of the Company.

We _____ Bank, further agree that the Guarantee herein contained shall remain in full force and affect during the period that would be taken for the performance of the equipment as stated in the Purchase Order issued by the Company and that it shall continue to be enforceable till the completion of the period and certified that warranty obligation have been fully carried out by the supplier and accordingly discharges the Guarantee subject. However, the Company shall have no right under after the expiry of the Guarantee, i.e. _____ (date).

We, _____ Bank undertake not to revoke this Guarantee, during its currency except with the previous consent of the Company in writing.

Notwithstanding anything contained herein.

1. Our liability under the Bank Guarantee shall not exceed Rs. _____ (Rupees _____).
2. This Bank Guarantee shall be valid up to _____.
3. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before expiry of date (i.e. _____).

NOTWITHSTANDING anything contained herein above, our liability under this Guarantee is restricted to Rs. _____ (Rupees _____ only) our guarantee shall remain in force until. Unless a Demand or claim under the guarantee is made on our bank in writing on or before _____ all your rights under the said guarantee be forfeited and we shall be relieved and discharged from all liabilities thereunder.

Details of the Issuing Bank

Name of the Bank	
Branch Name	
Branch Code	
IFSC Code	
E-mail Id	
Phone/Mobile No.	

Seal & Signature of the Bank

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send a copy of the same by Email (purchase@texmin.in) to TEXMiN, IIT (ISM) Dhanbad with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Form-4**MANUFACTURERS' AUTHORIZATION FORM**

The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer and be enclosed with the technical bid.

Date:

Tender No.:

Address of the Manufacturer:

We do hereby authorize *[insert complete name and address of Bidder]* to submit the bid as per above-mentioned tender no. and to subsequently negotiate and sign the Contract. This is to confirm that the item(s) as per the tender is/are manufactured by our firm.

We hereby extend our full guarantee and warranty in accordance with Clause 14 of the Terms & Conditions, with respect to the Goods offered by the above firm.

We hereby confirm the compliance of the technical specifications submitted by our authorized Bidder (Form-7)

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____ *[insert date of signing]*

Form-5**COMPLIANCE STATEMENT FORM**

S. No. (as per NIT)	Required Specifications /Parts/Accessories of Tender Enquiry	Quoted specification including Model No. if any	Compliance (Yes / No)	Deviation, if any to be indicated with technical justification (The compliance/ deviation should be supported with relevant Technical literature/brochure)

Seal and Sign of Bidder

UNDERTAKING BY THE BIDDER

- ❖ If the bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- ❖ The technical and commercial deviations should be indicated separately.
- ❖ If the bidder fails to enclose the technical compliance statement, the bid will be rejected.
- ❖ If the bidder furnishes document(s) (including compliance) or makes statement(s)/declaration(s) which is found to be false/wrong/forged at any point of time prior/during/post purchase process, the EMD of the bidder will be forfeited including cancellation of the bid, blacklisting of bidder/Manufacturer and appropriate legal action by the Institute. The decision of the Institute will be final in such cases.
- ❖ After opening of the price bid no clarification/query on technical aspects will be entertained by the Institute.

Signature and Seal of the Bidder

Place:-

Date:-

Form-6**Declaration by bidder****(Please specify Class of Supplier and Local Content percentage)****In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated : 04th June 2020 and 2th March 2021 issued by DIPP, Ministry of Commerce and Industries, GoI.**

To,
The Chief Executive Officer
Technology Innovation in Exploration & Mining Foundation
3rd Floor, i2h Building,
IIT (ISM) Dhanbad, Dhanbad- 826004.

Respected Sir,

In accordance with the order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 I hereby declare that

- i) I am aware about all provision mentioned in Tender No. «TEXMiN/Purchase/23-24/28 as well as order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and abides by the same.
- ii) I declare that for this tender, I am a Class-I local supplier / Class-II local supplier / Non-local supplier (Strike out whichever is not applicable) and classification is based on local content of goods/services/work offered by bidder in this tender.

iii) **Local content (in percentage) in offered** good/services/work is: ____%

Whereas 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- iv) The services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. are not included as Local content in case of imported products.
- v) The local content for all inputs which constitute the said goods/services/works has been verified and bidder is responsible for the correctness of the claims made therein.

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

Form-7**Quality Control Requirements / Declaration by Tenderer**

[Supplier shall fill the following format and submit along with the bid.]

Subject: Tender Enquiry No TEXMiN-Purchase-23-24-28 dated 21 July 2023

Sl No.	Para-Meters	Requirements	Offered	Deviation, (if any.)
1.	Specifications	I shall supply, install & commission the material exactly as per specifications in ANNEXURE-I	Accepted	
2.	Contract Form	Duly filled, signed and sealed is to be submitted in the prescribed format as per form-2	YES (Page no. __)	
3.	Seal/Signature	All the pages of the Tender Documents are numbered, sealed, signed & Submitted.	YES	
4.	Authorization certificate	Tenderers have to submit Manufacturer's Authorization form certificate along with bid. (Form-4)	YES (Page no. __)	
5.	Other Essential Certificate	GST Certificate, TIN and Scanned Copy of PAN with the bid	YES (Page no. __)	
6.	Catalogue/ Brochures /technical literature	Catalogue giving the technical details of " Supply and Installation of Smart and Virtual Classroom Solution " is attached.	YES (Page no. __)	
7.	Purchase orders	Copies of previous Purchase orders/Work Orders pertaining to Experience and Past Performance against Qualification/Eligibility criteria (if applicable)	YES (Page no. __)	
8.	Payment terms	Payment terms as per tender conditions is accepted	YES (Page no. __)	
9.	Delivery schedule	Successful bidder should supply, install & commission the item within 30 Days after placement of Purchase Order	YES (Page no. __)	
10.	Compliance Statement	Submitted as per Form-5	YES (Page no. __)	
11.	EMD	Submitted in form of DD/PBG/Bid Securing declaration/ Valid Exemption Certificate	YES (Page no. __)	
12.	Bank Detail	The Bank/RTGS Detail on the letterhead of the bidder(s)	YES (Page no. __)	
13.	Vendor's Registration Certificate	Registration Certificate to provide the Item/ services with the appropriate Govt. Authority.	YES (Page no. __)	
14.	Warranty Clause	The warranty clause as per tender conditions is accepted.	YES (Page no. __)	
15.	Class Of Supplier	Class of Supplier -----(Class I/class II/Non-local Supplier) in accordance with Order No. P45021/2/2017-PP (BE-II) dated 04 th June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI. (to be enclosed with the technical bid) Form No.: 6	YES (Page no. __)	

Yours faithfully,

Date:

Signature: Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:

Technical Specification for Supply and Installation of “Smart Virtual Classroom Solution”**1. Interactive Display – 01 Nos**

PANEL		Screen Size		97" or higher
		Panel Technology		IPS or better
		Back Light Type		Direct
		Aspect Ratio		16:9
		Native Resolution		3840x2160 (UHD)
		Refresh Rate		60Hz or better
		Brightness (Typ.)		490 Nits or better
		Contrast Ratio		1200:1 or better
		Viewing Angle(H x V)		178°(H/V)
		Color Depth		10bit or better
		Response Time		8ms or better
		Operation Hours (Hours/Day)		16/7 or better
Connectivity (Jack Interface)	Input	Digital	HDMI	HDMI (3) HDCP2.2/1.4
		Analog	RGB	(1, VGA)
		Audio In		(1)
		RS232C IN		(1)
		RJ45(LAN)		(1)
	Output	USB		USB3.0 Type A(4) USB2.0 Type A(1) USB Type-C(1, USB-PD, DP-Alt,)
		HDMI Out		HDMI Out (1)
		Audio Out		1, Optical 1(SPDIF))
		Touch USB		(2)
		RJ45(LAN)		(1)
Key Feature	HW	Internal Memory		32GB
		Wi-Fi	Built-in	(Slot type)
		Power Indicator		YES
	SW	webOS ver.		Android 9.0
Environment Conditions		Operation Temperature		0 ~ 40 °C
		Operation Humidity		10 ~ 80 % RH
POWER		Power Supply		100-240V~ 50/60Hz
		Power Type		Built-In Power
Power Consumption		Typ.		460 W
		Max.		630 W
		BTU (British Thermal Unit)		1570 BTU/Hr(Typ.), 2150 BTU/Hr(Max)
		DPM		≤0.5W or better
		Power off		≤0.5W or better
SOUND		Speaker		16W x 2 or Higher
CERTIFICATION		Safety		CB / NRTL
		EMC		FCC Class "A" / CE / KC
OPS Compatibility		OPS type compatible		YES (Slot)
		OPS Power built in		YES

		Touch	Available object size for touch	Ø2 mm ↑ .
			Reponse Time	≤12ms
			Accuracy	±2mm
			Interface	USB2.0 or better
			Protection Glass Thickness	4T(Anti-Glare) or better
			Protection Glass Transmission	87% or better
			Operating System Support	Windows 7/8/10/WindowsXP/Linux/Mac/Android (WindowsXP/Linux/Mac Support one point touch) or better
			Multi touch point	Max 20 points or more
Android System		SoC		Quad core A73 or better
		GPU		Mail G52 MultiCore 2
		Internal Memory	Storage	32GB or more
			RAM	4GB or more
		Wi-Fi		802.11a/b/g/n/ac
		LAN		Gigabit LAN or better
Bluetooth		Bluetooth 5.0		
Warranty				3 Year or more
	Service	Local OEM Service center available in state from last 5 Years (Doc Req.)		
	MAF	The bid must be submitted along with Manufacturer / OEM Authorization		
	Approve Make	Samsung/LG/Sony/Panasonic		
OPS		Intel Core i5, 10th Gen, Win 10, 8GB RAM, 256GB SSD, HDMI IN, HDMI OUT, USB, LAN etc or better		

2. Non-Touch Display – 04 Nos.

Features		Specifications
Screen Size		65 Inch or Higher LED Back Lit.
Panel Technology		IPS/VA
Native Resolution		3840 x 2160 (UHD)
Brightness		400 cd/m2
Contrast Ratio		1,100 : 1 or more
Dynamic CR		500,000 : 1 or higher
Orientation		Landscape
Viewing Angle(H x V)		178 x 178
Operation Hours		16 Hrs
Connectivity		
Input Ports		
Digital		HDMI(3),
External Control		RS232C(1), RJ45(1)
USB		USB x 1
Output Ports		
Digital		Optical /Digital out -1
Audio Power		20W(10W x 2)
Additional feature		Inbuilt: Wi-Fi, Screen Sharing feature, Web Link, Built in Signage Media Player
Power Supply		100 – 240 V, 50/60 Hz
Certifications(Safety/EMC/ERP)		BIS,CE,FCC
Warranty		3 years
23	Wall mount	Required
Warranty		3 Year or more
Service		Local OEM Service center available in state from last 5 Years (Doc Req.)
MAF		The bid must be submitted along with Manufacturer / OEM Authorization
Approve Make		Samsung/LG/Sony/Panasonic

3. HDMI Splitter – 4 Nos.

HDMI Splitter	HDMI Splitter 1 input x 2 outputs
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3. Automatic Tracking Camera for Teacher – 01 No.

Parameter	Specifications
Advanced Tracking Accuracy	Advanced tracking algorithm should Even track the target if the target is stationary for a long time, it can always lock the tracking target without being disturbed by other moving targets or the contents of the projector. It should also self-adapt teacher height always keeping the proper height of the teacher's heads in the video. It should have advanced image processing and analysis algorithms to Easily switch between lecturer tracking image / panoramic image, student posing image / panoramic image which is required for lecturer capture and remote interactive teaching. It should also supports RTMP protocol for easy webcasting. The tracking range can cover all rooms, no longer limited to the podium and automatically scales according to the distance of the target that always maintaining the appropriate size.
Main Camera	
Image Sensor	The camera should have a 1/2.8" Exmor camera sensor or better
Effective Pixels	The camera should be 2.14 megapixel or better
Signal To Noise ratio	The camera should have a s/n >= 50dB or better
Minimum Illumination	The camera should have a minimum Illumination of .5 Lux.
Field of View	The camera should have a 59.5 or more degrees Wide field of view and 3.2 or more degrees tele field of view.
Zoom	The camera should have an optical Zoom of 20X or more and digital zoom of 12X or more
Pan/Tilt Range	The camera should have a PAN range of -170° to + -170° or more and Tilt range of -30° to +90° or more.
Presets	The camera should have at least 256 presets
Video Output	The camera should have Video Output through USB 3.0 for Unified devices, Digital DVI and 3G-SDI port.
Control	The Camera should have RS-232 control port
Resolutions Support	The camera should support resolutions of 1080p/60, 1080p/50, 1080p/30, 1080p/25, 720p/60, 720p/50, 720p/30, 720p/25 or better.
Panaromic Camera	
Image Sensor	The camera should be a 1/2.8" CMOS sensor or better
Effective Pixels	The camera should be 2.14 megapixel or better
Full Camera View	Horizontal 86 degree vertical 52 degree
White Balance	It should have auto white balance
Exposure	It should support auto exposure.
Accessories	The system should come up with all the accessories, like control cables, power cables, tracking software, hardware, setup, etc.
RJ-45 Port	It should support 128 Kbps-8192Kbps or better.
Protocols	Its should support TCP, HTTP, RTSP, RTMP, ONVIF, UDP or more.
Video Compression	It should support H.265/.264/MJPEG or better compression.

Certifications	It should be have BIS, CE, FCC, RoHS & BIS certificates. Proof to be submitted.
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4. PTZ Tracking Camera for Students – 6 Nos.

Parameter	Specifications
Advanced Tracking Accuracy	It should have Built-in human behavior recognition image algorithm to depend on students standing and sitting and automatically zoom on the standing student. The positioning effects should not be limited by the room size, shape, and stepped room. it should have good adaptability to different heights. The size of the tracking camera lens should have an automatic zoom function according to the distance of the target. The color and brightness of tracking and panoramic images should be consistent and intelligently identify single or multiple peoples standing and sitting movements, and give tracking positioning shots of single or multiple people, which can identify the actions of sitting and sitting after standing. It should give Flexible installation position, not limited to the center of the front of the room.
Main Camera	
Image Sensor	The camera should have a 1/2.8" Exmor camera sensor or better
Effective Pixels	The camera should be 2.14 megapixel or better
Signal To Noise ratio	The camera should have a s/n>= 50dB or better
Minimum Illumination	The camera should have a minimum Illumination of .5 Lux.
Field of View	The camera should have a 59.5 or more degrees Wide field of view and 3.2 or more degrees tele field of view.
Zoom	The camera should have an optical Zoom of 20X or more and digital zoom of 12X or more
Pan/Tilt Range	The camera should have a PAN range of -170° to + -170° or more and Tilt range of -30° to +90° or more.
Presets	The camera should have at least 256 presets
Video Output	The camera should have Video Output through USB 3.0 for Unified devices, Digital DVI Port and 3G-SDI port.
Control	The Camera should have RS-232 control port
Resolutions Support	The camera should support resolutions of 1080p/60,1080p/50,1080p/30,1080p/25, 720p/60,720p/50, 720p/30, 720p/25 or better.
Panaromic Camera	
Image Sensor	The camera should be a 1/2.8" CMOS sensor or better
Effective Pixels	The camera should be 2.14 megapixel or better
Full Camera View	Horizontal 86 degree vertical 52 degree
White Balance	It should have auto white balance
Exposure	It should support auto exposure.
Accessories	The system should come up with all the accessories, like control cables, power cables, tracking software, hardware,setup, etc.
RJ-45 Port	It should support 128 Kbps-8192Kbps or better.

Protocols	Its should support TCP, HTTP, RTSP, RTMP, ONVIF, UDP or more.
Video Compression	It should support H.265/.264/MJPEG or better compression.
Certifications	It should be have CE, FCC, RoHS & BIS certificates. Proof to be submitted.

5. Electronic Podium with Audio system- 01 No.

Parameter	Specifications
Top&Body	Top and Body should be Metal.
Mechanism	The system should have a Top Sliding Mechanism.
Keyboard/Mouse Tray	It should have sliding Tray for Keyboard /Mouse
Visualiser Tray	It should have a Provision for Visualiser with a Sliding Tray.
Wheels	Its should have Wheels for easy movement.
Rack Space	Its should have Rack Space for keeping Amplifier, CPU, Microphone receiver or more equipment.
Screen Size	The system should consist of 21.5 Inches Touch Screen Monitor.
Resolution	The monitor should have a native resolution of 1920x1080
Port	The monitor should come with a USB port for PC Connection.
Brightness	The monitor should have a Luminosity of 250 cd/m ² or more.
Input port	The monitor should have a VGA, HDMI or DVI Input port.
Supply	The monitor should support Power Supply of 100 ~ 250VAC.
Gooseneck Mic Frequency	The Microphone should have a frequency response of 40 Hz to 17,000 Hz or better.
Gooseneck Mic Pattern	The Microphone should have a Cardioids Polar Pattern.
Gooseneck Mic Port	The Microphone should come up with standard 3 PIN XLR Connector.
Wireless Microphone System	It should be supplied with 1 Wireless Handheld and 1 Lapel Microphone.
	The receiver should have individual XLR Outputs.
	The receiver should have 1 number mixed Output
	The Microphone should have a frequency response of 40Hz to 17000 Hz or better.
Amplifier	The Amplifier should consist of a 100 Watts (50 WattsX2) at 4 Ohms.
	The Amplifier should have S/N Ratio of >80dB.
DSP	The DSP should have a 100% Full Duplex Echo Cancelling – no attenuation during full-duplex.
	The DSP should be standard 19 inches Rack Mountable
	The DSP Should have sufficient Ports to perform the Acoustic Echo Cancellation for all the microphones.
	DSP Should have dual capability of Local Sound Reinforcement and Far end Audio to be sent for Video conferencing at the same time without any Noise and Echo. Whatever teacher or student speaks through Collar or hand held microphone and Goosneck microphone all should be Going to Far end Location over Video Conference and also

	should come out of Speakers for local Sound Reinforcement so that everyone present in class can also hear clearly.
	The DSP should have USB port for integrating with Unified Software solutions like Skype, Lync, etc.
Control System with Integrated Switcher	It should have Dual Control System Touch-based & Control pad based so that in case one is not working another can be used as a backup.
Laptop Interface with integrated Advance Switcher	The system should consist of the at least following ports on the interface with integrated Switcher having following Ports VGA port, HDMI Port, Audio port, 4 USB Ports, Power Outlet. It should come with integrated button pad controller to switch between HDMI , VGA and USB Ports. It shall have HD video inputs for CPU, 2x Laptop Inputs, Visualiser or more
Mini PC	It should be supplied mini PC with i5 Processor 10th Gen., 8GB RAM, 256GB SSD, Win10.
System Controller with switcher and Control Pad	It should be supplied with Controller having 5 numbers RS-232 Ports.
	It should have 2 numbers of IR ports which should also acts as RS232 port by configuration when required.
	It should have 10 or more high voltage relay ports. External relay modules can also be used.
	It should have RJ-45 Port and 5 or more analog control ports.
	It should have atleast three zone lighting Dimmer Ports or better. External Dimmer circuits can also be used which shall get operated from the Touchpad and Controller supplied with the Podium.
	A Control pad is to be supplied with the controller which should be touch enabled. It shall be at least 7 inches in size.
	The podium should have 1 input for CPU, 1 Input For Laptop and 1 Input for Visualiser.
Functions	It should perform the functions of Mic Mute/Unmute, Volume Mute/Unmute, Projector On/Off, Screen Up/Down, Source Selection or more including Lighting Control. If extenal Faculty wants to connect his Laptop and play any multimedia Content it should transfer touch control and Audio through single USB Cable so that Laptop screen can be touch controlled with integrated touch interactive panel and also through same USB Port Audio should also be sent through DSP and amplifier to the External speakers.
Certifications	It should be CE, FCC certified.

6. Ceiling loudspeaker 12W, Metal – 10 Nos.

Electrical	
Rated Power	12 W (12 W / 6 W / 3 W)
Sound Pressure Level at 12W / 1 W (1 kHz, 1 m)	99 dB / 88.7 dB
Effective frequency range	70 Hz to 17 kHz(-10dB)
Opening angle (1kHz/4kHz,-6dB)	175° / 50°
Rated impedance	833 Ohm
Rated input voltage	100 V
Connector	4 Pole Screw Terminal
Mechanical	
Diameter	200 mm
Cutout diameter	165 mm
Depth	70 mm
Weight	1.3 kg
Color	Off White
Operating temperature	-5 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Parts included	
Quantity	Component
LCZ-UM12-IN Ceiling loudspeaker 12W, metal	1

7. Mixer amplifier, 240W, USB/BT – 1 No.

Electrical Mains power supply		
1	Voltage	220-230V, AC, 50Hz / 240W (reduced power at lower mains)
2	Inrush current	40 A
Performance		
1	Frequency response	80 Hz to 18 kHz (+1/-3 dB @ -10 dB ref. rated output)
2	Distortion	<1% @ rated output power, 1 kHz
3	Bass Control	Max. ± 8 dB
4	Treble Control	Max. ± 8 dB
AUX input		
1	Connector	Cinch, stereo converted to mono
2	Sensitivity	200 mV to 300 mV
3	Impedance	22 kohm
4	S/N (flat at max. volume)	≥70 dB
5	Headroom	>25 dB
Insert 1 x		
1	Connector	RCA Cinch
2	Sensitivity	1 V
3	Impedance	>10 kohm
Loudspeaker Output 100V		

1	Connector	Screw terminal, floating
2	Max. / rated	360 W / 240 W
Loudspeaker output 4 Ohm		
1	Connector	Screw terminal, floating
2	Max. / rated	31 V (240 W)
Mechanical		
1	Dimensions (H x W x D)	100 mm x 430 mm x 290 mm (19" wide, 2U high)
2	Mounting	Stand-alone, 19" rack
3	Color	Charcoal
4	Weight	Approx. 10.5 kg
Environmental		
1	Operating temperature	-5 °C to +45 °C
2	Storage and transport temperature	-40 °C to +70 °C
3	Relative humidity	<95%
Certifications and approvals		
1	Safety	acc. to IEC 62368-1
2	Vibration and shock	acc. to IEC 60068
3	Transport	as per IS7028
4	EMC emission	acc. to CISPR 32
5	EMC immunity	acc. to EN 55103-2: 2009 + A1: 2012

8. Wireless Mike – 04 Nos. and Collar Mike – 02 Nos.

Sr. No.	Parameters	Specification
R300 Receiver Specifications:		
1	Receiver Type:	Synthesized PLL
2	Frequency Range (RF):	A Band 618 – 634 MHz B Band 678 – 694 MHz C Band 516 – 532 MHz E Band 850 – 865 MHz
3	Number of Channels:	32
4	Modulation:	± 40 kHz
5	Diversity:	True Antenna
6	RF Sensitivity:	$<1.0 \mu\text{V}$ for 12 dB SINAD
7	Image Rejection:	> 55 dB
8	Squelch:	Tone Code plus Amplitude
9	Power Requirements:	12–16 VDC, 500mA max
10	Operating Temperature:	5°C to 45°C (41°F to 113°F)
11	Dimensions:	43 mm H x 206 mm W x 210 mm D (1.72 in H x 7.8 in W x 8.0 in D)
Audio Parameters		
12	Frequency Response:	80 Hz – 18 kHz ± 2 dB
13	Balanced Output:	20 dBV (max @ 40 kHz deviation)
14	Unbalanced Output:	Adjustable 8 mV to 0.755V RMS
15	Distortion:	$< 1.0\%$, 0.4% typical (ref 1 kHz, 40 kHz deviation)
16	Signal-to-Noise Ratio:	> 100 dB A-Weighted
17	Dynamic Range:	> 95 dB
BP-300 and HT-300 Transmitter Specifications:		
1	Radiated Output:	8 mW typical
2	Back Lit LCD Display:	Channel, Frequency, Mute, and Battery Level
3	Microphone Head:	Electro-Voice PL22 Cardioid Dynamic
4	Standard Lavalier Microphone:	Electro-Voice ULM18 Uni-Directional Condenser
5	TA4F Connector Wiring:	Pin 1: Ground; Pin 2: Mic Input; Pin 3: +5V bias; Pin 4: +5V thru 2.2k Ω
6	Power Requirement:	Two AA batteries
7	Battery Life (Typical):	> 14 hours with AA alkaline typical
8	Bodypack Antenna:	Flexible external 1/4 wave
9	Handheld Antenna:	Internal proprietary
10	Dimensions (Bodypack):	84 mm H x 66 mm W x 23 mm D (3.3 in H x 2.6 in W x 0.89 in D)
11	Dimensions (Handheld):	26.7 cm (10.57 in) Long

PRICE SCHEDULE / PRICE BID (ANNEXURE-II)**Tender Inviting Authority: TEXMiN, IIT (ISM), Dhanbad****Name of Work: "Supply and Installation of Smart and Virtual Classroom Solution":****Tender No: «TEXMiN-Purchase-23-24-28» (To be submitted in hard copy only)****PRICE SCHEDULE****(This FORM must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)****If packing charges, transportation charges, insurance charges, Installation Commissioning & Training charges are already included in the unit price then please mentioned zero "0" in the respective cell.**

	Name of the bidder													
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make/ HS N Code	Quantity	Units	Quoted Currency in INR	UNIT PRICE without any tax In Figures To be entered by the Bidder Rs.	SUB TOTAL AMOUNT Without Taxes	Packing & Forwarding if any (in INR)	Charge for Inland Transportation, Insurance, etc in INR	Installation Commissioning & Training in INR	TOTAL AMOUNT Without Taxes	GST in Percentage	TOTAL AMOUNT With Taxes	TOTAL AMOUNT IN WORDS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.01	"Supply and Installation of Smart and Virtual Classroom Solution"		0	set	IN		0.00					0.00	0.00	