DIRECTORATE OF TECHNICAL EDUCATION AND TRAINING, ODISHA (DTE&T)

Killa Maidan, Buxi Bazar,Cuttack-753001
Phone No-0671(2301061),Fax-0671(2301961)

NIT No. DTET/2025-26/426/03 Date: 12.01.2026

File No: DTET-PROC-ET-0002-2025

REQUEST FOR PROPOSAL (RFP)

TO

ESTABLISH CENTRE OF EXCELLENCES IN

MANUFACTURING PROCESS CONTROL AND AUTOMATION AT GOVERNMENT INDUSTRIAL TRAINING INSTITUTES

DTE&T under the administrative control of Skill Development & Technical Education Department, Government of Odisha (the Client) invites both Technical & Financial proposals from the world's leading OEM companies or their authorised channel partners through e-tender process for **"Establishment of Centre of Excellence (CoE) in Manufacturing Process Control and Automation at Government Industrial Training Institutes (ITIs) of Odisha"** on Turnkey Basis**.** Bidders fulfilling the prescribed eligibility criteria of the RFP can access and download the complete RFP Document and other details from **www.dtet.odisha.gov.in/www.tendersodisha.gov.in**.

The major events under the bid process are:

Sr. No.	List of Key Events	Critical Dates
1	Date of Issue of RFP	13.01.2026
2	Last date for submission of Pre-Bid Queries	22.01.2026 (by 5:00 PM)
3	Date of Pre-proposal Meeting	30.01.2026 (at 03:00 PM)
4	Issue of Addendum/Corrigendum (if any)	04.02.2026 (by 05:00 PM)
5	Due Date for Submission of Proposal	20.02.2026 (by 5:00 PM)
6	Date of Opening of Technical proposal	21.02.2026 (by14:00 PM)
7	Date of Technical Presentation	To be informed to the technically qualified bidders later
8	Date of Opening Financial Proposal	Through the e-tender portal to be intimated later by e-mail to the technically qualified bidders.
9	Method of Selection	Least Cost Selection (LCS)

The proposals complete in all respect must be submitted through e-tender process latest by 20.02.2026 before 5:00 PM) clearly mentioning **'Request for Proposal for establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha''.** The proposals received beyond the last date and time will be rejected without assigning any reason. Prospective bidders are advised to regularly visit the DTE&T Odisha website (www.dtet.odisha.gov.in/en/tenders) and e-procurement (Tenders Odisha) Portal https://tendersodisha.gov.in for any Updates/Corrigendum/Amendment. Any subsequent updates will be announced on the DTE&T Odisha website and e-procurement Odisha portal. The authority reserves all the rights to reject any/ all proposals at any stage without assigning any reason thereof.

Sd/-
Director
DTE&T, Odisha

Memo No. **Date:**

1. Copy to e-Governance Cell, SD&TE Department, Government of Odisha for publication in the website of the Department for wide publicity.

2. Copy to Smt. Kalpana Panigrahi, I/c S&B Section, for publication in the Website and Notice Board of DTE&T without delay for wide publicity.

Sd/-
Director
DTE&T, Odisha

REQUEST FOR PROPOSAL

FOR

ESTABLISHMENT OF CENTRE OF EXCELLENCE IN MANUFACTURING PROCESS CONTROL AND AUTOMATION AT GOVERNMENT INDUSTRIAL TRAINING INSTITUTES

Directorate of Technical Education and Training, Odisha
Killa Maidan, Buxi Bazar,
Cuttack-753001
Phone No-0671(2301061),
Fax-0671(2301961)
Email: dtetorissa@gmail.com; dtetodisha.procuremeent@gmail.com

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Disclaimer

The information contained in this Request for Proposal (herein after referred to either "RFP") document or subsequently provided to the Bidders, whether verbally or in documentary or any other form by or on behalf of the Directorate of technical Education and Training, Odisha herein after referred to as DTE&T, or any of their employees or advisors, is provided to the Bidder(s)on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

DTE&T reserves the right to reject any or all of the proposals submitted in response to this RFP document at any stage without assigning any reasons whatsoever. DTE&T, ODISHA also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the RFP document response. DTE&T, ODISHA reserves the right to change/ modify/amend any or all of the provisions of this RFP document. Such changes would be posted only in its website (www.dtetodisha.gov.in). Prospective bidders are requested to visit the website frequently to keep them abreast with the latest developments on this tender.

This is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their technical & financial offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the DTE&T, ODISHA in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for the DTE&T, ODISHA, their employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Bidder who reads or uses this RFP document.

The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and wherever necessary obtain independent advice from appropriate sources. DTE&T, ODISHA, their employees and advisors make no representation nor warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document.

1. FACT SHEET

Sl. No.	Particular	Details
1.	**Name of the Client**	Director, Directorate of Technical Education and Training (DTE&T) under the administrative control of Skill Development & Technical Education Department, Government of Odisha.
2.	**Method of Selection**	Least Cost Selection (LCS)
3.	**Mode of Submission**	Online (e-tender) **www.tendersodisha.gov.in**
4.	**Date of Issue of RFP(e-tender)**	13.01.2026
5.	**Deadline for Submission of Pre-Proposal Query**	22.01.2026 (by 5:00 PM) (Through email to: **dtetodisha.procurement@gmail.com**)
6.	**Date of Pre-Proposal Meeting**	30.01.2026 (at 03:00 PM) (Through Hybrid Mode)
7.	**Due date for submission of proposals**	20.02.2026 (by 5:00 PM) (**www.tendersodisha.gov.in**)
8.	**Date of opening of Technical Proposal**	21.02.2026 (by 14:00 PM)
9.	**Date of Technical Presentation and**	To be informed to the technically qualified bidders later.
10.	**Date of Opening of Financial Proposal**	Through the e-tender portal to be intimated later by e-mai to the technically qualified bidders
11.	**Bid Processing Fee (Non-Refundable)**	Rs. 10,000/- + GST: 18 % = **Rs. 11,800/-** (Rupees Eleven Thousand Eight Hundred Only) (through Demand Draft in favour of "DTE&T Odisha" & payable at Cuttack).
12.	**Earnest Money Deposit (EMD) (Refundable)**	**INR 44,00,000/-** valid for minimum 225 days from last date of bid submission. EMD amount to be submitted in shape of Bank Guarantee/e-Bank Guarantee in favour of "DTE&T Odisha" from any scheduled commercial bank.
13.	**Performance Security**	The selected Bidder shall furnish 5% of the Contract value in shape of Bank Guarantee/e-Bank Guarantee in favour of "DTE&T Odisha" from any scheduled commercial bank and valid for 68 months.
14.	**Address of the Client:**	Director, Directorate of Technical Education and Training (DTE&T) Odisha, Killa Maidan, Buxi Bazar, Cuttack, Pin Code: 753001 **E-mail**:dtetorissa@gmail.com; & dtetodisha.procuremeent@gmail.com **Contact person**: 1. Sri. S. K. Patra, Joint Director (Procurement), DTE&T Odisha, Mob. 9437404277

NOTE:

- Amendments/Corrigendum(a) to the RFP document, if any, would be published on the website of DTE&T Odisha and Odisha e-Procurement portal only. Please visit the website: www.dtet.odisha.gov.in/www.tendersodisha.gov.in regularly for the same.
- A bidder may submit their both technical and commercial proposals after fulfilling the minimum eligibility criteria mentioned in Section 4.
- Proposals must be submitted before the date, time and venue mentioned in the Factsheet through Online (e-tender) www.tendersodisha.gov.in. Proposals that are received after the deadline will not be considered.
- The Director, DTE&T reserves all the rights to cancel the Selection Process and reject any or all the proposals at any point of time.
- No contractual obligation whatsoever shall arise from the RFP document unless and until a formal contract is signed and executed between the Director, DTE&T and the Selected Bidder.
- The Director, DTE&T disclaims any factual or other errors in the RFP document (the onus is purely on each Bidder to verify such information) and the information provided therein are intended only to help the Bidder(s) to prepare a proposal in accordance with the terms and conditions as set out in this RFP document.
- **Exemption may be given to the local MSMEs/local Start-Ups (registered in Odisha) for submission of Tender Fee & EMD as per the Odisha Procurement Preference Policy for Micro and Small Manufacturing Enterprises-2023 (MSME Department Notification No. 566/MSME dated 24.01.2024) and Odisha General Finance Rules (OGFR) only after submission of proper documents as proof. An AFFIDAVIT may be submitted as per the TECH-11.**
- **Price Preference is not applicable in this tender.**
- Tender Fee and EMD exemption are not available to any Dealer/ Distributor/ Trader etc., who is not registered as a Manufacturer of similar category of Goods in Odisha.
- If a Bidder participates as Joint Venture (JV) /Consortium, the exemptions for submission of Tender Fee & EMD shall not be applicable for them.

2. E-TENDERING

Procedure for Participation in e-tendering

1) Web address of E-tendering website: https:// www.tendersodisha.gov.in.
2) The Digital Signature enrollment has to be done with the e-token, after logging into the portal. The e-token may be obtained eMudhraCA/GNFC/IDRBT/MtnlTrustline/SafeScrpt/TCS.
3) Bidder then logs into the portal giving user id / password chosen during enrolment.
4) The e-token that is registered should be used by the bidder and should not be misused by others.
5) DSC once mapped to an account cannot remap to any other account. It can only be inactivated.
6) The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under My Documents option and these can be selected as per tender requirements and then attached along with bid documents during bid submission. This will ensure lesser upload of bid documents.
7) After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as per the tender document; otherwise, the bid will be rejected.
8) The BOQ template 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 that tender. Bidders are allowed to enter the Bidder Name and Values only.
9) If there are any clarifications, this may be obtained online through the eProcurement Portal, or through the contact details given in the tender document. Bidder should take into account of the corrigendum published before submitting the bids online.
10) Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender schedule and they should be in PDF formats. If there is more than one document, they can be clubbed together.
11) Bidder should arrange for the EMD as specified in the tender.
12) The bidder reads the terms and conditions and accepts the same to proceed further to submit the bids
13) The bidder has to submit the tender document(s) online well in advance before the prescribed time to avoid any delay or problem during the bid submission process.
14) There is no limit on the size of the file uploaded at the server end. However, the upload is decided on the Memory available at the Client's System as well as the Network bandwidth available at the Client side at that point of time. In order to reduce the file size, bidders are suggested to scan the documents in 75- 100 DPI so that the clarity is maintained and also the size of file also gets reduced. This will help in quick uploading even at very low bandwidth speeds.
15) It is important to note that, the bidder has to Click on the Freeze Bid Button, to ensure that he/she completes the Bid Submission Process. Bids which are not Frozen are considered as Incomplete/Invalid bids and are not considered for evaluation purposes.
16) The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay, or the difficulties faced during the submission of bids online by the bidders due to local issues.

17) The bidder may submit the bid documents online mode only, through this portal. Offline documents will not be handled through this system.
18) At the time of freezing the bid, the eProcurement system will give a successful bid updating message after uploading all the bid documents submitted and then a bid summary will be shown with the bid no, date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed using the e-token of the bidder and then submitted.
19) After the bid submission, the bid summary has to be printed and kept as an acknowledgement as a token of the
20) The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening event.
21) Successful bid submission from the system means, the bids as uploaded by the bidder is received and stored in the system.
22) System does not certify for its correctness.
23) The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected
24) The time that is displayed from the server clock at the top of the tender Portal, will be valid for all actions of requesting bid submission, bid opening etc., in the e-Procurement portal. The Time followed in this portal is as per Indian Standard Time (IST) which is GMT+5:30. The bidders should adhere to this time during bid submission.
25) All the data being entered by the bidders would be encrypted at the client end and the software uses PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission and not viewable by any one until the time of bid opening. Overall, the submitted bid documents become readable only after the tender opening by the authorized individual transferred over secured Socket Layer (SSL) with 256-bit encryption technology. Data encryption of sensitive fields is also done.
26) The bidders are requested to submit the bids through online eProcurement system to the TIA well before the bid submission end date and time (as per Server System Clock).

3. SECTION I: Letter of Invitation

NIT No: DTET/2025-26/426/03 **Date:12.01.2026**

Name of the Assignment: "RFP for establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha".

1. DTE&T under the administrative control of Skill Development & Technical Education Department, Government of Odisha (The Client) invites online Bids (both Technical & Financial) from the Original Equipment Manufacturer (OEM) or authorised Technology Partner/Channel Partner for **"Establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha".** More details on the proposed assignment are provided at **Section-3: Terms of Reference (ToR)** of this bid document**.**
2. Bidder will be selected under **Least Cost Selection (LCS) method** as prescribed in the RFP Document.
3. The proposal, complete in all respect as specified in the RFP document must be accompanied with a **Non-refundable** amount of **Rs. 10,000/- + Rs. 1800 (GST @18%) = Rs. 11,800 (Rupees Eleven Thousand Eight Hundred)** towards **Tender Processing Fee** and a **refundable amount of equal to INR 44,00,000/-** towards **EMD** valid for minimum 225 days from the last date of bid submission, failing which the bid will be rejected.
4. The last date and time for submission of Bid complete in all respects is mentioned as per the data sheet in **www.tendersodisha.gov.in** and the date of opening of the technical proposal, Technical Presentation & financial bid in the presence of the bidder's representative at the specified address as mentioned in the Bidder Data Sheet . Representative of the bidder may attend the meeting with due authorization letter on behalf of the bidder.
5. This RFP includes following sections:
   a. Letter of Invitation **[Section – I]**
   b. Information to the Bidder **[Section – II]**
   c. Terms of Reference [**Section – III]**
   d. Technical Bid Submission Forms **[Section – IV]**
   e. Financial Bid Submission Forms **[Section –V]**
   f. Annexure **[Section – VI]**
6. While all information/data given in the RFP are accurate within the consideration of scope of the proposed assignment to the best of the Client's knowledge, the Client holds no responsibility for accuracy of information and it is the responsibility of the bidder to check the validity of information/specifications/narrations included in this document. No claim whatsoever shall be admissible for the alleged loss/damage suffered by the bidders on account of such rejection. In case of any dispute/ ambiguity arising in the process relating to documents, the decision of the Tender calling authority shall be final, binding and cannot be challenged.
7. **The Client reserves the right to accept / modify/ reject any/all Bids / cancel the complete tender or part of it at any stage without assigning any reason thereof.**

Sd/-
Director
DTE&T Odisha

4. SECTION II: Information to the Bidders

4.1 Pre-Qualification/Eligibility Criteria:

Before opening and evaluation of the technical proposals, each bidder will be assessed based on the following pre-qualification criteria. The bidder is required to produce the copies of the required supportive documents / information as part of their technical proposal failing which the proposals will be rejected.

Sr. No.	Pre-Qualification Criteria	Specific Requirement	Documents Required
1	**Legal Entity**	The Bidder must be registered as either of the following: a. Company under Companies Act, 1956/2013 or b. Partnership Firm registered under the Indian Partnership Act, 1932 or c. Joint Ventures (JV)/Consortium* or d. Limited Liability Partnership registered under The Limited Liability Partnership Act, 2008 registered	Registration documents of the Bidder as a duly registered legal entity in India along with: ● Registration document showing incorporation of the Bidder, ● Certified copy of registered Partnership Deed, ● PAN Card of the registered legal entity, ● GST certificate of the registered legal entity (Form GST REG-06), ● Any other supporting document, as may be required.
2	**OEM or Authorised Technology/ Channel Partner**	The bidder should be an original equipment manufacturer (OEM) or Authorised Channel Partner/Technology Partner of the OEM.	• **For Original Equipment Manufacturer (OEM)** - Copy of the manufacturing license, or • **For the Authorized Channel Partner/ Technology Partner:** An undertaking from the OEM is required stating that they would facilitate the Bidder on a regular basis with technology/product updates and extend support for the warranty as well and along with manufacturing license of OEM. (TECH-9)
3	**Operation**	The Bidder Firm should have been in operation in relevant field for the past **07 (seven) years** as on the date of issue of RFP and filed ITRs for the last three FYs (i.e., FYs 2022-23, 2023-24 & 2024-25)	Audited Financial Statements for the last three financial years duly sealed & signed by a Chartered Accountant in practice, along with ITR for the said periods and the latest GST Return (GSTR-3B). **Provisional Audit Report for any of the FYs will not be accepted.**
4	**Financial Capacity**	The Bidder shall have an average annual turnover of at least **Rs. 90.00 Crore** over the last three Financial Years i.e., FY: 2022-23, 2023-24 & 2024-25. This must be the Bidder's turnover and not that of group companies/ organizations.	Audited financial statements/CA certified true copy stating the turnover. Financial Details of the bidder (TECH - 3) along with copies of last three FY's Audited Financial Statement duly sealed &signed by a

			Chartered Accountant in practice.
5	**Net Worth**	i) The net worth of the Bidder firm (manufacturer or authorized partner) should not be negative in '**FY 2024-25**' and ii) also should have not eroded by more than 30% (thirty per cent) in the last three years, ending on '31st Mar'2025'.	A Certificate duly sealed & signed by a Chartered Accountant in practice with Registration Number
6	**ISO Certificate**	The Technology Partner/Channel Partner or the OEM company should have ISO 9001, ISO 14001 & ISO 45001 certification.	Copy of valid ISO certificates of the agency/ the OEM must be submitted.
7	**Past Experience**		
7.1	**Setting-up CoEs**	The bidder, during **last 03 (Three)** financial years must have the experience in i. Setting-up at least **02 (Two)** Centre of Excellences (CoEs) in same sector or execution of two work orders involving supply of equipment/machineries of same sector with minimum order value of **Rs.22.00 Crore or above each**, Or ii. Setting-up at least **04 (Two)** Centre of Excellences (CoEs) in same sector or execution of four work orders involving supply of equipment/machineries of same sector with minimum order value of **Rs.10.00 Crore or above each**, at any Government or Private organization/ Government or Private educational institute/ Government or Private training institute/ any Industry.	Copies of Relevant Work Orders/Sanction Orders/ Contract or MOUs/MOAs containing value of the supplies/ Work Completion Certificate/ Successful Project Completion and Performance Certificate/Commissioning Certificates or equivalent documentary evidence from the client should be provided as proof (TECH-5)
7.2	**Training & Placement**	The bidder must have experience of providing training to the minimum 100 trainees/students in last 03 years in similar sector and must achieved minimum 50% placements for 100 trainees trained and certified in last 03 years.	Bidder shall submit Documentary evidence: Draft agreements/ MoUs/ Work Orders with numbers/ completion certificates. & Documentary evidence: records of placement with average salaries – with contact details of employers.
8	**Quality Certification**	The bidder/vendor should have ISO/ISI Certification with every Machinery Test Certificate Mandatory as applicable.	Copy of valid ISO/ISI certificates along with Machinery Test Certificate as applicable.
9	**Mandatory Documents**	The bidder shall submit the Technical data in compliance with the technical specifications mentioned in the tender document (ToR).	Submission of product wise brochure & catalogues and relevant pages from the website with available technical data in compliance with the technical specifications mentioned in the ToR.

10	**Blacklist**	The Bidder shall not have been blacklisted by any Central / State Government Ministry in India or Public Sector Undertakings or any Government Agencies. Any Bidder that has been barred by the Central Government, any State Government, a statutory authority, or a Public Sector Undertaking from participating in any project and the bar subsists as on the date of the Proposal Due Date, would not be eligible to submit a Proposal.	Notarized Undertaking by the Authorized Signatory (TECH-6)
11	***Consortium /Joint Venture**	Consortium /Joint Venture may be allowed but with a condition that OEM should be the lead partner and will be responsible for execution of contract. Sub-Contracting will not be allowed.	Submission of a consortium agreement, power of attorney for the lead partner, proof of legal status for each member (like registration or partnership deeds), and a GST registration certificate for the lead member. (TECH -7)
12	**Authorized Representative**	A Power of Attorney in the name of the person signing the proposal.	Original Power of Attorney (Notarized on a Rs.100/- Non-Judicial Stamp Paper) (TECH-4)
13	**No failure of performance**	A Bidder including any Associate should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder, or Associate, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder, or Associate.	The Director, DTE&T would place sole reliance on the certification provided by the Bidder in this regard in its Cover Letter. Any misrepresentation or concealment of any information in this regard shall render the Bid liable for outright rejection at the sole discretion of the Director, DTE&T.
14	**Bid Processing Fee (Non-Refundable)**	The Bidder shall furnish a Tender Fee of Non-refundable amount of Rs. 10,000/- + Rs. 1800/- (GST @18 %) = Rs. 11,800 (Rupees Eleven Thousand Eight Hundred Only).	Payment to be done through Demand Draft in favour of "DTE&T Odisha" & payable at Cuttack.
15	**Earnest Money Deposit (EMD) (Refundable)**	The Bidder shall furnish EMD amount equal to Rs.44,00,000/- valid for minimum 225 days from last date of submission of bid.	EMD to be submitted in shape of Bank Guarantee/e-Bank Guarantee in favour of "DTE&T Odisha" from any scheduled commercial bank.

4.2 Documents to be submitted along with TECHNICAL BID (PART-A):

The bidder must furnish the following documents duly signed in along with their Technical Proposal:

- Filled in Bid Submission Check List in Original (Annexure-I)
- Covering letter (TECH – 1) on bidder's letterhead requesting to participate in the selection process
- Bid Processing Fee & EMD as applicable

- Copy of Certificate of Incorporation/ Registration
- Copy of PAN
- Copy of Goods and Services Tax Identification Number (GSTIN)
- Copies of IT Return for the last three financial years i.e., FY:2022-23, 2023-24 & 2024-25 and the copy of latest GST Return (in GSTR-3B)
- General Details of the Bidder (TECH – 2)
- Financial Details of the bidder (TECH – 3) along with all the supportive documents such as Balance Sheet and Income/ Expenditure Statement duly signed as per the instruction.
- Power of Attorney (TECH – 4) in favour of the person signing the bid on behalf of the bidder or Board of Directors
- List of setting-up of CoEs/supply of equipment/machines from same sector (Past Experience Details, (TECH – 5) along with copies of contracts / work orders / completion certificate from previous Clients (as provided in the RFP).
- Notarized Undertaking from the Bidder on not blacklisted (TECH - 6)
- Consortium Agreement (if Consortium/JV) (TECH-7)
- Technical Compliance Sheet (Requirements and specifications as per the ToR) (Tech-8)
- Manufacturing License or the Manufacturer's Authorization Form (TECH-9)
- Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India" (TECH - 10)
- Bidder's Affidavit for Micro and Small Manufacturing Enterprises to get an exemption as per the Odisha Procurement Preference Policy (TECH - 11).
- Net worth Certificate duly sealed & signed by a Chartered Accountant.
- Copy of valid ISO/ISI certificates along with Machinery Test Certificate as applicable.
- Submission of product wise brochure & catalogues and relevant information on products supplies
- Certification in its Cover Letter by the Bidder regarding non-failure to perform on any contract

Note:

Bidders should submit the required supporting documents as mentioned above. Bids not conforming to the eligibility criteria and non-submission of required documents as listed above will lead to rejection of the bid. Submission of forged documents will also result in rejection of the bid. Bidders are advised to study all instructions, forms, terms & conditions, and other important information as mentioned in the RFP document. The proposal must be completed in all respect, indexed. Each page should be numbered and signed by the authorized representative. Client at its own discretion reserves the right to ask for clarifications/supporting documents at any time during evaluation.

4.3 In case of Joint Venture/Consortium

***Joint Venture (JV)/Consortium**

Two Companies/Agencies may jointly undertake contract(s). Each entity will be jointly and severally responsible for completing the task as per the contract.

Joint Venture/Consortium details:

Name of all Members of a JV/Consortium (not more than 2):

1. Lead Member (minimum participation share – 50%)
2. Other Member (minimum participation share – 20%)

Joint Venture/Consortium must comply the following requirements:

I. The qualifying criteria parameter e.g. past experience, financial capacity/turnover (of the relevant period) and other eligibility of the individual member of the JV/Consortium will be added together and the total criteria should not be less than as spelt out in qualifying/ Experience and Eligibility criteria as specified in e-tender Notice/ Bid document/ Experience and Eligibility Criteria.

II. In case the Bidder is a Joint Venture, the work experience of any one, or two of the individual Partners of JV or the JV itself may be furnished as the work experience of the Bidder.

Work Order, BOQ, TDS etc. may be sought during clarification or along with deficient documents, if felt necessary by the Tender Committee.

III. The formation of JV/Consortium or change in the JV/Consortium character/ members after submission of the bid and any change in the bidding regarding JV/Consortium will not be permitted.

IV. The bid, and in case of a successful bid - the agreement, shall be signed so as to legally bind all members jointly and severally and any bid shall be submitted with a copy of the JV/Consortium Agreement providing the joint and several liabilities with respect to the contract.

V. The bid submission must include documentary evidence to the relationship between JV/Consortium members in the form of JV/Consortium Agreement to legally bind all partners jointly and severally for the proposed agreement which should set out the principles for the constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total) and liabilities (joint and several) in respect of each and all of the firms in the JV/Consortium. Such JV/Consortium Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.

VI. One of the members shall be nominated as 'In-charge' of the contract and shall be designated as Lead Partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the members.

All the partners of a JV/Consortium may together authorize the Lead Partner to submit the bid on behalf of the JV/Consortium, along with an undertaking that in case of a successful bid. the work shall be executed by the JV/Consortium as per contract terms of the bid document.

Note: This authorization must be a part of the JV/consortium agreement if the Bid is submitted by the lead partner on behalf of the JV/Consortium.

VII. The JV/Consortium must provide that the Lead Member shall be authorized to incur liabilities and receive instructions for and on behalf of any and all members of the JV /Consortium and the entire execution of the contract shall be done with active participation of the Lead Member.

VIII. The contract agreement should be signed by each JV/Consortium members. Subsequent declarations/letters/documents shall be signed by lead member authorized to sign on behalf of the JV/Consortium or authorized signatory on behalf of JV /Consortium.

IX. The bid should be signed by the person submitting the bid, duly authorized by all the members of the JV /Consortium.

X. An entity can be a member of only one JV /Consortium. Bid submitted by JVs /Consortium /Lead Partner, consisting of the common entities as member will be rejected.

XI. The JV /Consortium agreement may specify the share of each individual member for the purpose of execution of this contract. This is required only for the sole purpose of apportioning the value of the contract to that extent to individual member for subsequent submission in other bids if he intends to do so for the purpose of the qualification in that Bid.

XII. The earnest money / bids security can be submitted by the Joint Venture /Consortium or one or more partners of the Joint Venture /Consortium.

XIII. The JV /Consortium agreement must specifically state that it is valid for the project for which bidding is done. If JV/Consortium breaks up midway before award of work and during bid validity period bid will be rejected.

If JV /Consortium breaks up midway before award of work and during bid validity/after award of work/during pendency of contract, in addition to normal penalties as per provision of bid document, all the members of the JV /Consortium shall be debarred from participating in future bids for a minimum period of 24 months.

XIV. JV /Consortium agreement shall be registered in accordance with law so as to be legally valid and binding on the members before making any payment.

Note: If the work is awarded to a JV /Consortium firm, they will register the JV /Consortium agreement under Registration Act in accordance with law

XV. JV/Consortium shall open a bank account in the name of JV/Consortium and all payments due to the JV/Consortium shall be credited by purchaser to that account only. To facilitate statutory deductions all statutory documents like PAN, GST registration etc. shall be submitted by JV/Consortium at the time of execution of Agreement.

XVI. In case of JV /Consortium, PAN card for each partner of JV /Consortium must be submitted.

XVII. In case of Joint Venture/Consortium, the Bidder should submit Scanned Copy of GST status of Lead Partner of the Joint Venture/Consortium.

XVIII. Scanned copy of JV /Consortium Agreement as per **TECH-7** of General Terms and Conditions/SLA, containing name of partners and lead partner, Power of Attorney to the lead partner and share of each partner.

XIX. Power of Attorney of the respective partners from the Board of Directors of the concerned Company, or from the partners of the entity, or from the proprietor, authorizing the signatory of JV /Consortium agreement on behalf of them;

XX. The document(s) (any of them as applicable) regarding legal status of all the individual partners of JV /Consortium mentioned below:

a) Affidavit or any other document to prove proprietorship/Individual status of the Bidder,

OR

b) Partnership deed containing name of partners.

OR

c) Memorandum & Article of Association with certificate of incorporation containing name of Bidder.

1. **Bid Processing Fee (Non-Refundable):**

The bidder must furnish as part of technical Bid, the required bid processing fee amounting to **Rs. 10,000/- + Rs. 1800 (GST @18 %) = Rs. 11,800 (**Rupees Eleven Thousand Eight Hundred) through Demand Draft in favour of "DTE&T Odisha" & payable at Cuttack. 'Bid Processing Fee' must reach DTE&T Office at least 3 days before the last date of bid submission. Proof of submission must be attached with the technical bid. Bids received without bid processing fee will be rejected.

2. **Earnest Money Deposit (EMD):**

The bidder must furnish, as part of the technical Bid, an Earnest Money Deposit (EMD) amounting equal to **Rs.44,00,000/-** in shape of Bank Guarantee/e-Bank Guarantee in favour of "DTE&T Odisha" from any scheduled commercial bank and valid for minimum 225 days from the last date of submission of bids. Bids received without EMD will be rejected. 'Bid Security' must reach DTE&T Office at least 3 days before the last date of bid submission. Proof of submission must be attached with the technical bid.

The EMD amount is interest free and would be refunded to the unsuccessful Bidders within 30 Days of the Bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of the successful Bidder would be returned within 60 Days, only after furnishing the required Performance Security and signing of the contract. The EMD will be forfeited on account of the following reasons:

- A Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as envisaged under this RFP (including the standard form of Work Order); or,
- If any Bidder withdraws its Proposal during the Bid Validity Period as specified in this RFP and as extended by the Bidder from time to time; or,
- In the case of the Selected Bidder, if the Selected Bidder fails to accept the Work Order or execute the Contract or fails to furnish the Performance Security within the specified time limit; or,
- If the Bidder commits any breach of terms of this RFP or is found to have made a false, representation to the client.

3. **Performance Security:**

a. The successful bidder, within 15 days after the receipt of notification of award of the Contract (LoA) from DTE&T, shall furnish Contract Performance Guarantee to the DTE&T, Odisha which shall be equivalent to 5% of Total Bid Value (excluding taxes) and shall be in the form of a Bank Guarantee /e-Bank Guarantee from any of the commercial banks in India in the Performa given here-in-after in this document valid initially 68 months and may be extended beyond three years of completion of warranty period from the date of award of Contract as specified in the document.

b. The proceeds of the performance guarantees shall be payable to the DTE&T, Odisha as compensation for any loss/ penalties resulting from the Selected Bidders failure to complete its obligations under the Contract.
c. The performance guarantee will be released by DTE&T, Odisha and returned to the Selected Bidder after 60 days of completion of warranty period subject to fulfillment of all obligations on recommendation of respective Principal.

4. Proposal Validity:

Proposal shall remain valid for a period of **180 (One Hundred Eighty) days** from the date of opening of the technical proposal. The Client reserves the right to reject a proposal valid for a shorter period as non-responsive and will make the best efforts to finalize the selection process and award of the contract within the bid validity period. The bid validity period may be extended on mutual consent. If agreed upon, the bid security so deposited shall also be suitably extended.

5. Pre- Proposal Queries and Meeting:

The Bidder may request a clarification of any part of the RFP prior to the last date for submission of queries through email, as indicated in the Bidder's Data Sheet. Bidders are allowed to submit their queries in respect of the RFP and other details if any, to DTE&T in the following format.

Sl	Section/Page No and RFP Clause reference.	Content of RFP requiring clarifications	Queries/ Change/Clarification requested

A Pre-Bid meeting will be organized by DTE&T to address the queries relating to the overall selection process and scope of the work through Hybrid Mode (both **virtual & physical mode) as per the timeline mentioned in the Data Sheet**. The client will address the queries submitted by the bidders.

i. The purpose of Pre-Bid discussion is to provide the Bidders with information regarding the RFP, project requirements, and opportunity to seek clarification regarding any aspect of the RFP and the project. However, DTE&T, Odisha, reserves the right to hold or to reschedule the Pre-Bid meeting.
ii. DTE&T, Odisha shall not be responsible for ensuring that the Bidder's queries have been received by them. Any requests for clarifications received after Pre-Bid meeting will not be entertained.
iii. However, DTE&T, Odisha makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does it undertake to answer all the queries that have been submitted by the Bidders
iv. The Client's responses to Bidder queries will be made available to all Bidders and shall be uploaded on the Client's website. It shall be the Bidder's responsibility to check the Client's website for the responses to the queries or requests for clarification.
v. Any such corrigendum shall be deemed to be incorporated into this RFP and binding on all Bidders.

6. Submission of Proposals:

The bid should be submitted through Online mode only in **www.tendersodisha.gov.in**.

The tender is to be submitted electronically in two separate Cover No.1 (Technical Cover) and Cover No. 2 (Financial Cover) and contents as indicated below:

Cover No.1 (Technical Cover)

The bidder must furnish the following documents duly signed in along with their Technical Proposal:

- Filled in Bid Submission Check List in Original (Annexure-I)
- Covering letter (TECH – 1) on bidder's letterhead requesting to participate in the selection process
- Bid Processing Fee & EMD as applicable
- Copy of Certificate of Incorporation/ Registration
- Copy of PAN
- Copy of Goods and Services Tax Identification Number (GSTIN)
- Copies of IT Return for the last three financial years i.e., FY:2022-23, 2023-24 & 2024-25 and the copy of latest GST Return (in GSTR-3B)
- General Details of the Bidder (TECH – 2)
- Financial Details of the bidder (TECH – 3) along with all the supportive documents such as Balance Sheet and Income/ Expenditure Statement duly signed as per the instruction.
- Power of Attorney (TECH – 4) in favour of the person signing the bid on behalf of the bidder or Board of Directors
- List of setting-up of CoEs/supply of equipment/machines from same sector (Past Experience Details, (TECH – 5) along with copies of contracts / work orders / completion certificate from previous Clients (as provided in the RFP).
- Notarized Undertaking from the Bidder on not blacklisted (TECH - 6)
- Consortium Agreement (if Consortium/JV) (TECH-7)
- Technical Compliance Sheet (Requirements and specifications as per the ToR) (Tech-8)
- Manufacturing License or the Manufacturer's Authorization Form (TECH-9)
- Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India" (TECH - 10)
- Bidder's Affidavit for Micro and Small Manufacturing Enterprises to get an exemption as per the Odisha Procurement Preference Policy (TECH - 11).
- Net worth Certificate duly sealed & signed by a Chartered Accountant.
- Copy of valid ISO/ISI certificates along with Machinery Test Certificate as applicable.
- Submission of product wise brochure & catalogues and relevant information on products supplies
- Certification in its Cover Letter by the Bidder regarding non-failure to perform on any contract.

In Case of Joint Venture/Consortium, the above mentioned documents (Point No.4.3) must be submitted along with technical proposal.

Cover No.2 (Financial Cover)

Price Bid. (Cover -2 in BoQ Ms-Excel format.)

The following supporting documents to be attached (in PDF format) with the seal & signature of the signing authority along with the Price Bid (BoQ Ms-Excel format) within the Cover-2.

1. FIN-1: Financial Bid covering letter.
2. Annexure: Equipment wise cost breakup

The offer must be submitted in Two Bid - Two covers only though uploading in the eProcuremnet Portal, before the last date & time for bid submission.

Tender document (s) and all enclosures must contain the signature of the competent authority of the firm.

7. Evaluation of Proposals

A Three stage evaluation process will be conducted as explained below for evaluation of the proposals:

A. Preliminary Evaluation (1st Stage):

Preliminary evaluation of the proposals will be done to determine whether the proposal complies with the prescribed eligibility condition and the requisite documents / information have been properly furnished by the bidder or not. Submission of documents/ information as per Pre-Qualification/Eligibility Criteria will be verified.

The bidder is required to produce the copies of the required supportive documents/information as part of their technical proposal failing which the proposals will be rejected.

B. Technical Evaluation (2nd Stage):

Technical proposal will be opened and evaluated for those bidders who qualify the preliminary evaluation stage. Detailed evaluation process as per the following parameters will be adopted for proposal evaluation:

Sl. No.	Criteria	Maximum Mark	Documents Required
1	**Financial Capacity & Experience**	**30 Marks**	
1.1	**Turnover:** The Bidder should have an Average annual turnover of Rs. **90.00 Crore** in the last three financial years **(i.e., FY: 2022-23, 2023-24 & 2024-25).** *Scoring Criteria:* • Greater than or equal to Rs.90 Crore and less than Rs.100 Crore: **05 Marks** • Greater than or equal to Rs.100 Crore: **10 Marks**	**10**	Financial details of the Bidders in TECH-3 duly signed by the CA
1.2	**Past Experience:** The bidder, during **last 03 (Three)** financial years must have experience in Setting-up of Centre of Excellence (CoE) in any Government or Private organization/ Government or Private educational institute/ Government or Private training institute/ any Industry same sector or execution of work order involving supply of equipment/ machineries of same sector with order value as follows. *Scoring Criteria:* • For every work order value of Rs.22 Crore or more: **10 Marks will be given.** • For every work order value more than or equal to Rs.10 Crore but less than Rs.22 Crore: **05 Marks will be given.** (Maximum up to 20 marks)	**20**	Copies of Relevant Work Orders/ Sanction Orders/ Contract, MOUs containing value of the work/ Work Completion Certificate/ Successful Project Completion and Performance Certificate/ Commissioning Certificates or equivalent documentary evidence from the client should be provided as proof (TECH-5)

2	**Quality, Training & Placement**	**60 Marks**	
2.1	**Quality of proposed equipment/ machines:** Quality of the proposed Equipment/ Machines with respect to the technical specifications offered by the bidder, subjected to adherence of technical specifications asked for	**50**	Technical Compliance Sheet **(Tech-8)** with Submission of product wise brochure & catalogues and relevant pages from the website with available technical data in compliance with the technical specifications mentioned in the tender document.
2.2	**Experience in providing Training:** **Training** Bidder during last 03 financial years must have experience of imparting training to the minimum trainees/Students: • Trained and certified to 100 – 200 students: **05 marks** • trained and certified to more than 200 students: **10 marks**	**10**	**Documentary Evidence:** **Training:** Draft agreements/ MoUs/ Work Orders with numbers/ completion certificates
3	**Technical Presentation**	**10 Marks**	
3.1	**Technical PPT Presentation:** • Understanding the scope of work – **02 Marks** • Methodology and Implementation – **02 Marks** • Response to questions **- 02 Marks** • Proposed Plan for Training and Certification of Trainees – **02 Marks** • Placement plan for certified trainees etc.**- 02 Marks**	**10**	
	Grand Total (1 + 2 + 3)	**100**	

- **The minimum qualifying mark is: 70**
- **Bidder has to score at least 50% in each category i.e. (1.1 to 1.2, 2.1 to 2.2 & 3.1).**
- **Bidder must score at least 70% to qualify for opening of Financial Bid.**
- **The scores provided by the Technical Committee will be considered as final.**
- **The Technical PPT presentation on Bidder's proposals includes description of products make, model & proposed specifications of items in their Technical Proposal, past experience, objective, proposed plan, approach and methodology etc.**

Selection of Bidder

All responsive Bids will be considered for further processing as below:

a. Technical Evaluation Committee will prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by the Committee according to the evaluation process defined in this RFP document. The decision of the committee will be final and binding on all bidders and cannot be questioned at any stage of evaluation.

b. DTE&T reserves the right to ask for a technical elaboration/clarification in the form of a technical presentation from the Bidder on the already submitted Technical Proposal at any point of time before opening the Financial Proposal by providing at least 3 days of advance notice.

c. DTE&T, Odisha also reserves the right to seek confirmation/clarification from the issuing agency for the supporting documents submitted by the bidder. To assist in the examination, evaluation and comparison of the bids, and qualification of bidders, the committee may, at its discretion, ask any bidder for a clarification of its bid. The committee's request for clarification and the response shall be in writing through approved mode only and no other mode shall be entertained. Any clarification submitted by a bidder that is not in response to a request shall not be considered.

d. If any bidder fails to provide the requested presentation/clarification/information within the stipulated date and time given by the DTE&T, Odisha, the bid shall be technically disqualified. The request for clarification and the response shall be in writing, without any alterations regarding the price or substance of the bid submitted.

e. Further the scope of evaluation committee also covers taking any decision regarding the Tender document, execution/ implementation of the project including management period.

f. A detailed evaluation of the bids shall be carried out by the Technical Evaluation Committee in order to determine whether the Bidders are competent enough and whether the technical aspects are substantially responsive to the requirements set forth in the RFP document. The bidders must submit the Make, Model, Features, and Technical Specifications along with the images of equipment for which they are submitting the bid. Bidders may propose better technical specifications which may fit for the labs.

g. Bidders failing to comply with any of the above then the Bid will be summarily rejected. Bidders who score at least 70% marks in Technical Evaluation criteria set forth in this RFP document will be eligible for opening of their Financial Bid. If a bid does not meet minimum score, it will be deemed technically non-compliant and will not proceed to the financial evaluation.

h. Bidders are requested to visit the respective proposed institute for setting-up the CoEs and they need to project thru 3D view, how they are planning to setup the labs and place all equipment at CoEs.

i. The bidders are expected to provide following details along with their technical bids.
   - Detailed 3D design (in CAD format) of the CoE along with 3D view of the lab and specifications of proposed Civil, Electrical, Plumbing works, Furniture & Fittings etc.
   - Detailed Execution Plan
   - Human Resource Deployment Plan/ CV of proposed trainers.
   - Project Delivery Plan
   - Plan for Industry-Academia GAP analysis and preparation of industry relevant Course Curriculum.
   - Assessment and Certification Plan
   - Placement Plan
   - any suggestions (if any)
   - Other Requirements (if any)

C. Evaluation of Financial Proposal (3rd Stage)

The financial proposals shall be opened on the prescribed date in the presence of the bidder/bidder's representative who wishes to attend the meeting with proper letter of authorization. The name of the bidder along with the quoted financial price will be announced during the meeting.

1. The financial bids of bidders whose bids have been technically qualified (i.e., obtained minimum **70 marks** in Technical Evaluation) shall be opened by the Committee on the date and time specified in the RFP
2. Least Cost Selection (LCS) method will be followed during the Financial Evaluation and overall selection process.
3. Price Quoted without tax (as applicable) of the following will be considered together for Evaluation of the Financial Bid Evaluation.
   I. Total Cost of the Project
   II. Total Cost of Comprehensive Annual Maintenance Contract (CAMC) for 03 Years

4. The bidder with Lowest Quoted Price (L1) will be considered as Final Selected Bidder.

5. In case two or more bidders quoted the same prices, the Committee shall decide on the L1 bidder based on the following tie-breaking criteria:
   i. The bidder's turnover for the financial year 2024-25 will be considered first.
   ii. If the tie persists, the turnover for the financial year 2023-24 will be considered.
   [If further tie-breaking is required, the turnover for the financial year 2022-23 will be considered.
   iii. If the tie remains unresolved after considering the above financial years, the L1 bidder will be determined by a draw, which will take place in the presence of the concerned bidders. The Committee's decision on this matter should be final and binding.

6. If a tenderer submits a bid with what appears to be predatory pricing or an abnormally low bid, the Tender Evaluation Committee may request a written clarification from the bidder. The bidder will be asked to provide a detailed price analysis, price break up, or justification of the quoted price, considering the scope, schedule, risk allocation, and any other requirements outlined in the tender documents.
   If, after reviewing the price analysis or justification, the bidder fails to provide adequate supporting documentation, evidence, or calculations to substantiate the quoted price, the Committee may, at its sole discretion, reject the bid.

8. Contract Negotiations:

Contract negotiation, if required will be held at a date, time and address as intimated to the selected bidder/s. The bidder will, as a pre-requisite for attendance at the negotiations, confirm availability of all the proposed staff or the assignment. Representative conducting negotiations on behalf of the bidder must have written authority to negotiate and conclude a contract.

9. Award of Contract:

a. Being the lowest bidder (L1) is not the sole criterion for the award of the contract. The feasibility of the lowest quoted price will be assessed by the Committee, taking into consideration the relevant rules, terms and conditions outlined in the tender. The Committee's decision in this regard will be final and binding on all parties involved. Upon completion of the evaluation process, the contract will be awarded to the bidder who quoted the lowest price (L1) and complies with all applicable laws, regulations, and provisions stated in the tender.

b. DTE&T shall inform those Bidders whose Proposals did not meet the requirement or were considered non-responsive, informing them that their Financial Proposals will not be opened after completing the selection process. DTE&T shall simultaneously notify those Bidders who technically qualify on the Technical Evaluation process, informing them of the date and time set for opening of the Financial Proposals.

c. The Bidder's name, the Proposal Price, the total amount of each Proposal and other such details, will be announced and recorded by the DTE&T at the opening of Proposal.

d. After acceptance of LoA (Letter of Award) of Contract, Performance Security has to be deposited as specified in this document for signing an Agreement with DTE&T.

e. The selected Agency shall sign the Agreement within 21 (twenty-one) days from the issuance of LoA (Letter of Award) of Contract:
   i. DTE&T will sign the Agreement with the successful Bidder for a period as mentioned in 'Duration of Contract' in the document.
   ii. DTE&T may extend the Agreement for a time period beyond what has been specified in 'Duration of Contract' in the document.
   iii. DTE&T will also have the right to provide extension/ increase in the scope of work as per the mutually agreed terms and conditions between both the parties.

f. In case of unsatisfactory or rejection of equipment or performance of L1 bidder, only L2 bidder will be invited for negotiation to supply and fulfill the contract at L1 prices.

10. Payment Modalities:

Payment will be made to the selected company as per the schedule mentioned on achieving milestones/agreed work plan as per the Section-7 (Deliverables & Payment Schedule).

11. Duration of Contract and other timelines:

The contract shall be valid initially for a period of 66 months from the date of issuance of LOA and other timelines are detailed below.

i. **Supply of equipment/machines:** 4 months from the date of signing the Contract.
ii. **Installation & commissioning:** 2 months from the date of receiving site readiness confirmation from the Principal of respective Institute.
iii. **Comprehensive Maintenance Warranty:** 60 months from the date of successful commissioning.

12. Conflict of Interest:

A Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall be entitled to forfeit and appropriate the Bid Security, as mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Authority and not by way of penalty for, inter alia, the time, cost and effort of the Authority, including consideration of such Bidder's proposal (the "Damages"), without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

- The Bidder or its Associate and any other Bidder or its Associate thereof have common controlling shareholders or other ownership interests.
- A constituent of such Bidder is also a constituent of another Bidder; or
- Such Bidder or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder or any Associate thereof or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder or any Associate thereof; or
- Such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- Such Bidder, or any Associate thereof has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of

either or each other; or

- Such Bidder, or any Associate thereof has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of the Project.

13. Disclosure:

a. Bidders have an obligation to disclose any actual or potential conflict of interest. Failure to do so may lead to disqualification of the bidder or termination of its contract.
b. Bidders must disclose if they are or have been the subject of any proceedings (such as blacklisting) or other arrangements relating to bankruptcy, insolvency or the financial standing of the Bidder, including but not limited to appointment of any officer such as a receiver in relation to the Bidder's personal or business matters or an arrangement with creditors, or of any other similar proceedings.
c. Bidders must disclose if they have been convicted of, or are the subject of any proceedings relating to:
    - Criminal offence or other serious offence punishable under the law of the land, or where they have been found by any regulator or professional body to have committed professional misconduct;
    - Corruption including the offer or receipt of an inducement of any kind in relation to obtaining any contract;
    - Failure to fulfill any obligations in any jurisdiction relating to the payment of taxes or social security contributions.

14. Anti-corruption Measure:

- Any effort by Bidder(s) to influence the Client in the evaluation and ranking of financial Bids, and recommendation for award of contract, will result in the rejection of the Bid.
- A recommendation for award of Contract shall be rejected if it is determined that the recommended bidder has directly, or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question. In such cases, the Client shall blacklist the bidder either indefinitely or for a stated period of time, disqualifying it from participating in any related bidding process for the said period.

15. Force Majeure

"Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations here under impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

Force Majeure shall not include: (i) any event which is caused by the negligence or intentional action of a Party or agent's employees thereof, nor (ii) any event which a diligent Party could reasonably have been expected to take into account or avoid or overcome in the carrying out of its obligations during the subsistence of this Agreement. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

16. Language of Proposals:

The proposal and all related correspondence exchanged between the bidder and the Client shall be written in the English language. Supporting documents and printed literature that are part of the

proposal may be in another language provided they are accompanied by an accurate translation of the relevant passages in English with self-certification for accuracy, in which case, for the purposes of interpretation of the Proposal, the translated version shall govern.

17.Cost of bidding:

The Bidder shall bear all costs associated with the preparation and submission of its proposal. The Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. Bidder/s is/are not allowed to submit more than one proposal under the selection process. Alternate bids are also not allowed.

18. Legal Jurisdiction:

All legal disputes are subject to the jurisdiction of competent court of Cuttack /Bhubaneswar only.

19. Governing Law and Penalty Clause:

The schedule given for delivery is to be strictly adhered to in view of the strict time schedule. Any unjustified and unacceptable delay in delivery shall render the bidder liable for liquidated damages and thereafter the Client holds the option for cancellation of the contract for pending activities and complete the same from any other Bidder. The Client may deduct such sum from any money from their hands due or become due to bidder. The payment or deduction of such sums shall not relieve the bidder from his obligations and liabilities under the contract. The rights and obligations of the Client and the bidder under this contract will be governed by the prevailing laws of Govt of India/ Odisha.

i. Notwithstanding the right of DTE&T, Odisha to cancel the order, Delay Charges for late delivery at 0.5% (Half percent) of the undelivered portion of order value per week will be charged for every week's delay in the specified delivery schedule subject to a maximum of 5% of the value of the contract. Delay Charges should be recouped from pending payment or Performance Security as per the payment schedule. No Delay Charges will be charged in case of circumstances beyond control of the selected Bidder. The decision of the authority placing the contract, whether the delay in delivery has taken place on account of reasons attributed to the bidder shall be final.
ii. Please note that the above Delay Charges for delay in delivery and delay in commissioning are independent of each other and shall be levied as the case maybe.
iii. DTET, Odisha reserves its right to recover these amounts from Performance Guarantee and the payments due to the bidder as per the payment schedule. Delay Charges will be calculated on per week basis.
iv. The cumulative and aggregate limit of Delay Charges for delay in delivery and Delay Charges for delay in commissioning would be limited to maximum of 5% of the total Bid Value. The aggregate liability of the selected Bidder shall in no event exceed the total Bid Value under this Contract.
v. Delay charges shall also be applicable for delay in Comprehensive Warranty (CMC) during the warranty period i.e. 60 months from the date of successful commissioning. For every week's delay, 0.5% (Half percent) of order value (excluding taxes) will be charged for the specified CMC schedule mentioned in the Section-5 (Point No.V), subject to a maximum of 5% of the value of the contract.

20. Client's right to accept any Bid, and to reject any or all Bid/s

The Client reserves the right to accept or reject any Bid, and to annul or amend the bidding / selection / evaluation process and reject all Bids at any time prior to award of contract award, without assigning any reason there of and thereby incurring any liability to the bidders. Misrepresentation/improper response/ by the bidder may lead to the disqualification of the bid. If

such disqualification/rejection occurs after the Bids have been opened and the highest-ranking bidder gets disqualified/rejected, then the client reserves the right to consider the next best bidder, or take any other measure as may be deemed fit in the sole discretion of the Client, including annulment of the selection Process.

21. Number of Bids:

Each Bidder shall submit only one (1) Bid, in response to this RFP. Any Bidder who submits or participates in more than one Bid shall be disqualified. The Bidder shall be responsible for all costs associated with the preparation of its Bid and its participation in the bidding process.

22. Amendment of the RFP Document:

At any time before submission of proposals, the Client may amend the RFP by issuing an addendum through Department website. Any such addendum will be binding on all the bidders. To give bidders reasonable time in which to take an addendum into account in preparing their proposals, the Client may, at its discretion, extend the deadline for the submission of the proposals.

23. Confidentiality:

Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the bidders who submitted the proposals or to other persons not officially concerned with the process, until the publication of the award of contract. The undue use by any Consultant of confidential information related to the process may result in rejection of its proposal and may be subject to the provisions of the Client's antifraud and corruption policy. During the execution of the assignment except with prior written consent of the Client, the consultant or its personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the contract.

24. Settlement of Dispute:

The Client and the Bidder shall make every effort to resolve amicably, by direct negotiation, any disagreement or dispute arising between them under or arising from or in connection with the contract. All claims and disputes arising under or relating to this Agreement are to be settled by binding arbitration in the state of Odisha. An award of arbitration may be confirmed in a court of competent jurisdiction. Arbitration shall be as per Indian Arbitration Act, 1996.

Disputes not so resolved amicably within 30 days of receipt of notice of such as a dispute shall be resolved by Commissioner –cum-Secretary to Government, SD&TE Department, Government of Odisha which is binding and final.

25. Disqualification of Proposal:

The proposal is liable to be disqualified in the following cases as listed below:

- Proposal submitted without Bid Processing Fee & EMD as applicable
- Proposal not submitted in accordance with the procedure and formats as prescribed in the RFP
- During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices
- Proposal is received in incomplete form
- Proposal is received after due date and time for submission of bid
- Proposal is not accompanied by all the requisite documents / information
- A commercial bid submitted with assumptions or conditions
- Bids with any conditional technical and financial offer

- If the bidder provides any assumptions in the financial proposal or qualifies the commercial proposal with its own conditions, such proposals will be rejected even if the commercial value of such proposals is the lowest / best value
- Proposal is not properly sealed or signed
- Proposal is not conforming to the requirement of the scope of the work of the assignment.
- Bidder tries to influence the proposal evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process
- If, any of the bid documents (including but not limited to the hard and soft/electronic copies of the same, presentations during evaluation, clarifications provided by the bidder), excluding the commercial bid, submitted by the bidder is found to contain any information on price, pricing policy, pricing mechanism or any information indicative of the commercial aspects of the bid;
- Bidders or any person acting on its behalf indulges in corrupt and fraudulent practices
- Any other condition / situation which holds the paramount interest of the Client during the overall section process.

26. Fraud and Corrupt Practices

The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, Director, DTE&T may reject a Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, Director, DTE&T shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to Director, DTE&T under the Bidding Documents and/ or the Agreement, or otherwise.

Without prejudice to the rights of the Director, DTE&T herein above and the rights and remedies which Director, DTE&T may have under the RFP, or otherwise if a Bidder is found to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process such Bidder, at the sole and absolute discretion of Director, DTE&T, shall not be eligible to participate in any tender or RFP issued by Director, DTE&T during a period of 2 (two) years from the date such Bidder, is found to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be. The following terms shall have the meaning hereinafter respectively assigned to them.

5. SECTION III: Terms of Reference (ToR)

"RFP for establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha".

I. Introduction:

The Directorate of Technical Education and Training, Odisha, having its principal office at Killa Maidan, Buxi Bazaar, Cuttack-753001(herein after referred to as the "DTE&T" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and permitted assigns), looks after technical education at Technical Institutes/Colleges, Diploma and formal CTS training at ITI level. It also provides Dual System Training, On-the-Job Training, Apprenticeship Training in order to prepare the Youth suitable for gainful wage and self-employment through Nano Unicorn Project of OSDA for a decent livelihood.

The goal of the DTE&T is to aims upgrade Government Industrial Training Institutes (ITls) into advanced skill development hubs by establishing Centres of Excellence (CoEs) equipped with state-of-the-art, industry-integrated laboratories, smart classrooms, and technology-enabled learning facilities. These CoEs will act as anchor institutions for providing high-quality vocational training, future-ready skilling, and continuous faculty development.

Each CoE will serve not only its host ITI but also extend training, resources, and technical support to nearby lTls, thereby fostering an ecosystem of excellence, and industry-readiness across the State.

DTE&T invites proposals from the leading OEM/Authorised Channel Partner/Authorised Technology Partner of OEM having experience of setting-up Centre of Excellences (CoEs) in similar sectors or supply, installation and commissioning of the similar advanced lab equipment.

II. Objective:

- To align training with emerging industry requirement and future technologies through industry partnerships for offering specialized courses in high-demand sectors.
- To upgrade lTls with industry-standard equipment, advanced laboratories, and modern infrastructure to deliver training at par with global benchmarks.
- To strengthen faculty capacity in pedagogy, advanced technologies, and digital tools for ensuring quality learning outcomes.
- To enhance employability by providing soft skills, exposure to best practices, and industry-academia linkages through curriculum co-design, apprenticeships, and dual-training models.

These centers should be on Build, Operate and Transfer Mode. All the Hardware should be of industrial standards. The software should not be restricted to educational limits. Should be provided with industrial features allowing DTE&T to offer Industrial consultancy apart from the skill development.

DTE&T shall provide the lab infrastructure with required space with electrical power supply, water supply (if required), furniture and other pre-requisite amenities before supply of equipment. The role of the successful bidder shall be to design and set up the CoEs on turnkey basis. (including complete setup of CoEs, supply and installation of equipment/machineries, commissioning & maintenance, and provide hand-holding support for minimum 3 (three) years which may be extended further (if needed) with mutual agreement. The selected bidder will be responsible for Comprehensive Warranty for 60 months, and provide operational training (as per the requirement) to the nominated staff from the consignee institutes.

III. Scope of the Project

The mission of establishing Centre of Excellences are to promote advancement and implementation of automation concepts through Skill Development of students in state of Odisha along with self-sustainability of the institute through technology support services to the industries.

These CoEs, to be designed by the Technology Partner (TP), is envisioned to be setup as a State of the Art Centre of Excellences (CoEs) in which the TP brings in their best-in-class equipment/ tools/ machines/ software (commonly referred to as equipment) to be used for training purposes. These CoEs will be located in an appropriate space offered by the DTE&T. These CoEs will be managed professionally by the Technology Partner. The infrastructure for the CoE will be made ready by Technology partner as per the proposed design by them and the specifications finalized and provided by DTE&T Odisha.

These CoEs will run under the overall operational management of the CoE Management Committee. The CoE Management Committee, under the Guidance of the DTE&T Odisha, will be responsible for devising and implementing a three-year rolling plan and ensuring that these CoEs are constantly upgraded and provides a high technology ecosystem for skilling/ up- skilling/ re-skilling/ cross-skilling and multi-skilling. The Technology Partner, under the Guidance of the CoE Management Committee, will be expected to assist the DTE&T Odisha to mobilize students from other Private Technical Training Institutes/employees from the relevant industries for skilling, upskilling or re-skilling training, which will help to generate internal revenues (IRG) at these CoEs, and can help in the sustainability of these CoEs.

Overall monitoring, administrative, quality and financial responsibilities including the management of these CoEs, management of hostels etc. will be the responsibility of the DTE&T. But, marketing, branding, development of training course content, training plan, deployment of technical experts to provide training, assessments, award certificates to the successful trainees/trainers, provide placement to the successfully certified trainees etc. will be the responsibilities of the Technology Partner.

A- Scope of DTE&T (the Buyer/Client):

The scope of work of the DTE&T inter alia states that;

I. DTE&T shall provide required space in the lab along with design/layout of the labs within the premises of the Govt. ITIs and Polytechnics/Engineering Schools.
II. Facilitate additional space (covered area) if required upon availability at the institute premises at free of cost.
III. Provide basic amenities like approach road and water supply (if required) nearest to the lab for running the machinery/equipment. Three phase electrical connection at nearest distribution/panel board will be provided at the designated labs by the consignee institutes.
IV. Required space, furniture, air conditioners (if required) etc. will be provided by DTE&T Odisha.
V. Conduct Pre-Delivery Inspection of sample equipment through Physical mode by its own technical experts or 3rd party agency/consultants/advisors appointed by DTE&T before the proposed equipment dispatch by the selected bidder and Post Delivery Inspection of all equipment by its own technical experts or by an independent agency appointed by DTE&T at any point of time. The operational expenses like testing the machines/equipment will be borne by the supplier.
VI. Provide the requisite hostel facilities for the students/trainees to be trained from other Govt. ITIs/Polytechnics within the existing infrastructure of the institute.
VII. CoEs, may train the passed-out trainees for nearby private ITIs & Polytechnics as a value addition course, on the fees as fixed by CoE Management Committee. CoE can generate revenue through fees deposited by the admitted trainees and provide skilling, upskilling/re-skilling training to the trainees from other private institutes.
VIII. CoE may train the semi-skilled technicians of nearby industries on payment, as fixed by CoE Management Committee.

IX. DTE&T Odisha and the consignee institutes will be responsible to monitor the performance of the Selected Bidders and progress of the work.

B- Scope of the Successful Bidder:

1. These CoEs, to be designed by the OEM/Technology Partner, is envisioned to be setup as a State of the Art Centre of Excellences (CoE) in which the selected company brings in their best-in-class equipment/ tools/ machines/ software (commonly referred to as equipment) to be used for training purpose. Selected Bidder must supply all machines/equipment compliant with ISO/ISI/BIS/CE or equivalent certification. Equipment wise relevant certificates must be submitted with the technical bids.
2. Supply, installation and commissioning of all machines/equipment in compliance to the technical specifications mentioned in Section-6 of the RFP, will be done by the Selected Bidders to setup these CoEs at the consignee institutes.
3. Complete lab infrastructure readiness including necessary civil works for installation and commissioning of the equipment, electrical connections from nearest distribution panel board to the machines, plumbing (if required) and other works to setup these CoEs and installation of the equipment/machines at these CoEs, falls within the ambit of scope of work of selected bidder.
4. All necessary works including minor civil (i.e. earthling/grounding of the machines), electrical (i.e. all type of cables connections, circuit breakers etc. required for connecting power supply point to machine), plumbing and other works for the installation & commissioning of the equipment/machines at the designated labs, falls within the ambit of scope of work of selected bidder.
5. Required Room/space, Furniture, Air Conditioners, Water Supply etc. will be provided by DTE&T Odisha but Selected Bidder is expected to supply all other installation accessories, facilities and services required for successful installation and smooth operation of the equipment. Bidders may conduct the site survey before installation at no additional cost.
6. Any accessories that must be needed for operation of the equipment but not mentioned in the specification shall also be quoted by the selected bidder.
7. Suitable and essential tool kit is to be supplied by the selected bidder with the equipment for the required maintenance.
8. The equipment/machines should be installed and commissioned at site. Site requirement along with the layout drawing for installation of equipment, electrical & water supply if any from main/ nearest sources shall be provided by the selected bidder upon issuance of Letter of Award of Contract (LoA).
9. The bidder shall not charge extra for additional items including fuel & lubricants, Gas Cylinders (if required), raw materials, consumables etc. required to meet the operational requirement during installation, commissioning and hand-holding training at consignee institutes.
10. Arrangement of Fire safety equipment like Carbon Dioxide or Dry Chemical Fire Extinguishers or any superior fire safety equipment with sensors.
11. Provide necessary safety & training posters for these CoEs. Branding and Marketing of these CoEs, along with the Digital Hoarding Board and banner at each CoE.
12. The selected bidder shall provide comprehensive warranty of supplied machineries/equipment for 60 months from the date of successful commissioning. The warranty does not include tools & tackles, consumables, PPE etc (if any).
13. The selected bidder must sign an agreement for Comprehensive Annual Maintenance Contract (CAMC) with DTE&T Odisha for 03 (three) years for the all equipment/machines of these CoEs. This CAMC contract must be signed 02 (two) months before expiry of the comprehensive warranty period i.e. 60 months. A performance security @5% of the Annual awarded Value of Comprehensive Annual Maintenance Cost (CAMC) (without tax) for the respective year must be

submitted by the selected bidder and the same will be initially valid for fifteen months and may be extended further, if necessary.

14. Handholding for 36 months from the date of successful commissioning. Handholding should include the following but not limited to
    I. The OEM/Technology Partner shall identify and formulate training programs to develop skills in futuristic/ disruptive technologies and associated skill sets required for industry ready.
    II. To develop courses, course content, course work, manuals, standard operating procedures and standards, disseminate the same with the overall intent of improving the skill sets of individuals.
    III. To impart high-end skills (and not generic skills) to Students, unemployed individuals and employed individuals (looking to up skill/ re-skill themselves).
    IV. To conduct train the trainers program for 01 (one) month of each batch and train the trainees' programs for 03 (three) months of each batch with a batch size of 20 students/trainees. Maximum 04 (four) batches of trainees may be trained in a year.
    V. To conduct need based/ on-request training programs to cater to specialized requirements of corporate, and to generate revenues through these programs.
    VI. To carry out assessment, certification of trainees as per the NSQF/NCVT prescribed guidelines.
    VII. Preparation of Training Modules for Train the Trainers and Trainees. Advanced skill training curriculum with minimum equivalent to NSQF level 5 or 6, in addition as per the demand of the industries should be included.
    VIII. Select appropriate courses; design the course structure, curriculum and pedagogy based on industry demand. Selected bidder shall identify and formulate training programs to develop skills in futuristic/disruptive technologies and associated skill sets required for industry ready.
    IX. The OEM/Technology Partner shall design courses, curriculum, and pedagogy based on industry demand for placing before the CoE Management Committee constituted by DTE&T and shall comply with the recommendations of CoE Management Committee and the same should be incorporated in the curriculum prior to the course commencement.
    X. Conduct training that meets industry standards by engaging appropriate faculties (qualified & experienced), facilities and technology like virtual classroom. **The agency must provide at least two (02) Qualified and Experienced Faculties for each CoE with minimum Graduate Engineer and minimum 5 years of industry experience in relevant field. Hand-holding training (Skilling/Up-Skilling/Re-Skilling) to be given for minimum 03 (three) years to the Trainers and Trainees from Govt. & Private ITIs/Polytechnics or Employees from nearby industries etc.**
    XI. Providing Soft Copies or Hard Copies of Training materials for at least 01 (one) batch with minimum 20 trainees during hand-holding training of the Trainers and Trainees.
    XII. The company has to ensure that the assessment is completed as per the standards in a fixed time frame and shall issue joint certificate to the passed-out students with the help from Principal of designated institute or any valid certificate from international bodies.
    XIII. The selected bidder shall furnish the proposal with details of courses, course content, course, work, manuals, pedagogy, standard operating procedures and standards, disseminate the same with the overall intent of improving the skill sets of individuals.
    XIV. Provide necessary Raw Materials & Consumables (if any) during hand-holding period.
    XV. Selected OEM/Technology Partner shall provide Placement Support to the successfully trained and certified students. Placement opportunities to be given at least 50% of the

successfully trained/certified trainees within maximum 01 (one) Year from their successfully certification. Overall Placement Assistance to be given for the trainees trained within the 03 (three) Years from the start date of hand-holding training.

C- Specifications of Civil & Electrical Works:

Design of CoEs including interior design with fire retardant, plastic coating painting, design of shop floor/labs with anti-skid, electrical insulating, fire retardant with epoxy flooring (with minimum 3mm thickness), required electrical, civil and plumbing works and furnishing of the labs etc. Selected Bidder shall mutually finalize the design and drawing of the labs and specifications of the Civil and other works with DTE&T Odisha. DTE&T Odisha will monitor the entire CoE setup centrally.

D- Pre-Delivery Inspection and Post-Delivery Inspection of all equipment:

DTE&T may conduct a Pre-Delivery inspection of all equipment/sample equipment through Physical mode by its own technical experts or 3rd party agency/consultants/advisors appointed by DTE&T before the dispatch of the proposed equipment by the selected bidder at the supplier's premises or at the manufacturer's factory site. The operational charges i.e. testing charges for samples, raw material, consumables (if any) etc. shall be borne by the supplier. But, other expenses like travelling, boarding and lodging of the technical experts, will be borne by the Authority.

All tests and inspections of all equipment during Post-Delivery Inspection shall be made at the place of delivery. Officers authorized by DTE&T shall be entitled at all reasonable time to inspect and supervise and test during installation and commissioning. Such inspection will not relieve the selected Bidder of their obligation in the contract.

If the OEM/Technology Partner fails to comply with any of the quality, technical specification or clause mentioned in the RFP, and then the Contract will be terminated by DTE&T Odisha.

E- Management of CoEs:

I. The CoE Management Committee will be consisting of representatives from selected bidder company, DTE&T, representatives from industries, DSDE officer, and Principal of the institute as member convener.

II. DTE&T Odisha shall be sole authority to oversee all the training and administrative activities in the best interest of the State of Odisha.

III. Company/firm shall support placement of trainees with the help of the particular Industry of each skill.

IV. CoE Management Committee will be constituted by DTE&T for the overall guidance and the role of the committee will generally be limited to:

a) Review the periodic updating of syllabus, curriculum and course content ii). Review adequacy of courses offered viz - a - viz industry demand and suggest addition/ modification or discontinuation of courses and fixation of fees.

b) Periodic performance and placement evaluation against pre - defined milestones detailed under RFP document to be published.

c) Review, and if necessary, engage third party to evaluate the quality of equipment and training.

d) It will fix the eligibility criteria for admission/reservations etc. and mobilize students/industry employees from nearby cluster for admission.

IV. Special Terms and Conditions:

1. Manufacturer (OEM) / Authorized Channel Partner/ Authorized Technology Partner having valid manufacturing license of OEM/ authorization certificates from OEM are eligible to participate in this tender. OEM must provide necessary documentary evidence of being an Original Equipment Manufacturer of the related equipment. Bid specific authorisation must be submitted in case of participation by channel partner/technology partner of OEM.
2. OEM should be nationally / internationally reputed Company.
3. For Technology Partner/Channel Partner, an undertaking from the OEM is required stating that they would facilitate the Bidder on a regular basis with technology/product updates and extend support for the warranty as well.
4. In this tender, either the authorized channel partner/technology partner on behalf of the OEM or OEM itself can submit bid proposals, but both cannot submit bids simultaneously for the same CoE.
5. If authorized channel partner/technology partner submits bid on behalf of the OEM, the same authorized channel partner/technology partner shall not submit a bid on behalf of another OEM for the same CoE.
6. In a scenario, if both OEM and or its channel partner/authorized dealer participated in the bidding process, bids of both OEM & an authorized partner/dealer will be technically disqualified and EMD will be forfeited as per prevailing rules. The authorization from OEM should indicate bid reference number.
7. The supplier of the equipment must confirm in writing that the spares for the entire supplied equipment will be available for a period of at least five years after the model of equipment supplied has been phased out. For frequently required spares, there should be adequate inventory with the Indian agency.
8. The successful bidder is responsible for the supply, installation and maintenance of the equipment. Equipment documentation including user manuals and operation and troubleshooting guides to be provided.
9. Comprehensive Warranty period shall specifically be mentioned in the offer. The selected bidder must adhere to the warranty clause mentioned herein.
10. Selected Bidder must sign Comprehensive Annual Maintenance Contract (CAMC) with DTE&T Odisha for at least 03 (three) years for the equipment/machines mentioned here in this RFP.
11. Financial Proposal must be submitted as per the BoQ MS-Excl format along with formats shared in FIN-1 & Annexure (PDF file).
12. Bidders must submit Technical Specification Compliance sheet within their technical bid. The bidders must be kept in their mind that mere copying of our specifications in the technical specification compliance sheets, shall not make the technical bid eligible for consideration. A bid has to be supported with original catalogue of the quoted item/s duly signed by the authorized person participating in the bid. Non-compliance with the above conditions shall be treated as incomplete/ambiguous and the bid shall be rejected without giving an opportunity to the bidder for further clarification/negotiation etc.
13. The bidder must produce documentary evidence of past supply experience of the offered make & model of the major equipment/machineries to any Govt./Private organization/industry.

14. Details of foundation drawing for instruments and equipment, if any, should be provided.
15. The Bidder shall quote their lowest possible price, and prices quoted by the Bidder shall be "fixed" during the Bidder's performance of the contract and not subject to any variation and/or escalation.
16. Bidder must quote **Cost of the Project**, which shall indicate clearly the including all taxes and charges towards packing, forwarding, handling, insurance, comprehensive warranty for 60 months, freight, incidental service, civil, electrical and other works, (if any), installation & commissioning of the goods and training to the consignee's personnel at site and **Cost of Comprehensive Annual Maintenance Cost (CAMC) in BoQ MS-Excel Format and FIN-1 (PDF File)**, indicating the total cost of Comprehensive Annual Maintenance Cost for the equipment/machines offered for the CoE' for 03 Years and applicable after the expiry of comprehensive warranty of 60 months**.** The price shall be quoted in Indian Rupees only.
17. The cost of standard accessories shall be included in basic price and optional accessories shall have to be quoted separately.
18. Any component, fitting etc. which may not have been specifically mentioned in the specifications but which are usual and necessary for the equipment, shall be supplied by the bidder at no extra cost.
19. In case of items of import, the bidder should take full responsibility for customs clearance, handling, tax payment, etc. and same should be inclusive in the financial bid.
20. DTE&T Odisha shall sign a **Comprehensive Annual Maintenance Contract (CAMC)** for 03 (three) years (which may be extended further as per the requirement of DTE&T Odisha) for the equipment/machines mentioned in 'Point No. 6' of the RFP, with the Selected Bidder beyond the warranty period of 60 months and shall be as per the terms and conditions mentioned in Annexure-III. Year wise cost of such maintenance contract (CAMC) shall be quoted**.**
21. Higher technical specifications may be considered subject to competitive price offer.
22. DTE&T Odisha reserves the right to accept, split, divide, negotiate, cancel or reject any bid or to annul and reject all bids at any time prior to the award of the contract without incurring any liability to the affected bidders or any obligation to inform affected bidder, the grounds of such action.
23. Price bid should be submitted in the BoQ MS-Excel Format and given format in **FIN-1** along with item wise rate in **Annexure** (PDF File). Price bid should have equipment wise breakup (Annexure).
24. Performance Security – A performance security in the form of Bank Guarantee/e-Bank Guarantee for 5% of the Awarded Value (excluding taxes) to be submitted within 15 days of issuance of the Letter of Award (LoA). The Bank Guarantee will be valid initially for 68 months and may be extended further if required. The performance guarantee will be released by DTE&T, Odisha and returned to the Selected Bidder after 60 days of completion of warranty period subject to fulfillment of all obligations on recommendation of respective Principal of the institutes.

V. Comprehensive Warranty (60 Months) Clause:

The final selected bidder must provide Comprehensive Warranty Maintenance Services for all supplied equipment/machines (except consumables, PPE and tools & tackles) at the CoEs for 60 months from the date of successful installation & commissioning. The scope of the bidders is as below.

i. Maintenance Services shall consist of Preventive and Corrective maintenance of equipment specified in Point No. 6 (excluding consumables, PPE and tools & tackles) & will include repair and replacement of parts free of cost.
ii. Preventive maintenance, half-yearly once, which includes:
    i. Check-up to ensure that device connection is proper; cabling is at proper condition etc.
    ii. Cleaning of the above instruments & equipments and checking the System Performance.
iii. The selected bidder must conduct preventive maintenance services at least twice (2 times) in a year at each CoE.
iv. The parts replaced must be new parts or equivalent in performance to new parts.
v. Any complaint informed through telephone/email must be acknowledged with a Complaint No. by the Supplier which will be noted by Consignee. All further contact with the Supplier on such complaint will be initiated through that Complaint No. Once rectification done, that No. will be cancelled by both parties. A register is to be maintained by the Supplier where complaints are to be noted along with Complaint No.
vi. The maintenance shall be attended by the service engineer within one week of intimation to the Bidder.
vii. The Service Engineer of the Supplier will be allowed to handle the respective plant & machineries only in the presence of the officer in charge at the institute site.
viii. The selected bidder should ensure that maintenance job is not hampered/ delayed due to paucity of spares/inadequate manpower etc.
ix. Minor repair to be done within 3 days of complaint registered and for major breakdown or replacement of parts must be completed by 15 days from the complaint registered to supplier. For imported parts, the replacement should be done within 4 weeks maximum.

VI. Comprehensive Annual Maintenance Contract (CAMC):

i. The Selected Bidder shall be under the obligation of entering into a Comprehensive Annual Maintenance Contract (CAMC) with DTE&T Odisha for a minimum period of 03 (three) years, renewable if felt necessary, on mutually acceptable rates, terms, and conditions mentioned herein. CAMC shall start after the completion of Warranty.
ii. The scope of CAMC shall cover maintenance and supply/replacement of materials and components, for smooth and reliable operation of the systems without trouble.
iii. Accordingly, the Bidders has to offer rates in BoQ MS-Excel Format and given **FIN-1 (PDF File),** for the CAMC charges for the CoE.
iv. Selected agency must sign the Comprehensive Annual Maintenance Contract (CAMC) with DTE&T Odisha for 03 (three) years for the equipment/machines supplied at the CoEs (except tools, tackles, raw materials, PPE etc.). This CAMC contract must be signed before expiry of the comprehensive warranty period i.e. 60 months. A performance security @5% of the Annual cost of CAMC (excluding Taxes) in the form of Bank Guarantee/Fixed Deposit Receipt/Term Deposit Receipt, must be submitted by the selected Agency before signing the CAMC contract for the respective lot and which will be initially valid for 15 months and may be extended further if necessary.
v. The Performance security towards CAMC for the particular year shall be returned only after submission and confirmation of BG/TDR/FD/DD of subsequent years.

6. List of equipment/machines and their Technical Specifications /Compliance Statement:

Proposed Government ITIs/Consignee Institutes:

1. **Govt. ITI Khariar Road, Nuapada**
2. **Govt. ITI Kotagarh**
3. **Govt. ITI Rua, Puri**
4. **Govt. ITI Kaptipada, Mayurbhanj**

List of Equipment for the CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha.

SL No	Item Description	Quantity
01	Analog Sensors Skid	1 Set
02	Digital Sensors Skid	1 Set
03	Electro-Hydraulic Skid	1 Set
04	Electro-Pneumatic Skid	1 Set
05	Electrical Safety & Earthing Trainer	1 Set
06	Instrumentation Erection, Installation Trainer	1 Set
07	Panels & Panel Wiring Training Kit	1 Set
08	Universal Calibration & Work Bench	1 Set
09	Control Valve Characteristics Trainer	1 Set
10	Single Loop Control Trainer -Temperature	1 Set
11	Single Loop Control Trainer - Pressure	1 Set
12	Single Loop Control Trainer – Level	1 Set
13	Single Loop Control Trainer -Flow	1 Set
14	Multi-variable Discrete PID Control Trainer	1 Set
15	Heat Exchanger Trainer	1 Set
16	Reactor & Pre-Heater Control Trainer	1 Set
17	3-Element Boiler Drum Level Control Trainer	1 Set
18	Sequence & Ratio Control Trainer	1 Set
19	Advanced Data Acquisition System	1 Set
20	Communication Protocol Trainer	1 Set
21	DCS Trainer	1 Set
22	Milk Processing Prototype Mini Plant	1 Set
23	SMART Edu-KIOSK	1 Set
24	Curriculum Content & Experiments	1 Set
25	Desktop Computers	15 Nos
26	Online UPS (20 KVA with minimum 60 minutes backup)	1 No
27	Interactive Touch Panel	1 No
28	Colour Laser Printer	1 No

List of equipment/software and technical specifications
For
setting up of CoE in Manufacturing Process Control and Automation on Turn-key basis including Design, Supply, Integrate, Customize, Installation & Commissioning of Equipment and Systems and provide hand-holding training.

Annexure-A

Sl No	Item Description	Purpose
01	Analog Sensors Skid	• Understand Various types such as Pressure, Level etc , Operating Principle, Specifications, Applications, Measurement exercises on characteristics and outputs and recording of • Transmitters, Transducers & Signal Conditioners • Analog Indicators & Paper Recorders • Controllers & Monitors
02	Digital Sensors Skid	Understand Various types, Operating Principle, Specifications, Applications, Measurement exercises on characteristics and outputs and recording of • Digital Sensors & Transducers • Digital Panel Meters • Digital Recorders
03	Electro-Hydraulic Skid	• Understand Various types, Operating Principle, Specifications, Applications, Measurement exercises on characteristics and outputs and recording of Electro-Hydraulic Elements
04	Electro-Pneumatic Skid	• Understand Various types, Operating Principle, Specifications, Applications, Measurement exercises on characteristics and outputs and recording of Electro-Pneumatic Elements
05	Electrical Safety & Earthing Trainer	• Learning all the basics of Electricity and Electrical Safety aspects while working with Instruments
06	Instrumentation Erection, Installation Trainer	• Zig for practicing the Installation, connection and Commissioning of Field Instruments
07	Panels & Panel Wiring Training Kit	• For practicing Panel Wiring and Terminals connection etc
08	Universal Calibration & Work Bench	• Instruments and Sensors Testing, Calibration and Basic Repairs learning
09	Control Valve Characteristics Trainer	• Testing of Control Valves and studying its characteristics and selection
10	Single Loop Control Trainer -Temperature	• Learning of basics of Instrumentation measurement, Control aspects of basic Process Variables such as Temperature, Pressure, Level and Flow
11	Single Loop Control Trainer - Pressure	
12	Single Loop Control Trainer – Level	
13	Single Loop Control Trainer -Flow	

14	Multi-variable Discrete PID Control Trainer	• Learning of basics of Instrumentation measurement, Control aspects of basic Process Variables such as Temperature, Pressure, Level and Flow in various modes – Closed Loop, Ratio, Cascade, Sequence, Feedback, Feed Forward etc
15	Heat Exchanger Trainer	• For learning the Heat Exchanger and Heat Energy Transfer concepts along with it's Process Control methods etc.
16	Reactor & Pre-Heater Control Trainer	• For learning the Reactor & Pre-Heater Control concepts along with it's Process Control methods etc
17	3-Element Boiler Drum Level Control Trainer	• Learning of 3 Element Control philosophy of Boiler Drum Level Control • Flow PID Control • Pressure PID Control • Process driven by Actual Electric Steam Boiler
18	Sequence & Ratio Control Trainer	• Multi-Tank structure to configure and learn PID Sequence Control Philosophy • Ratio Control philosophy learning
19	Communication Protocol Trainer	• Study and practice of various Communication protocols etc
20	Basic PLC System Trainer	• PLC based simple Control Loops study in relation with Single Loop Controllers
21	Advanced PLC & IIoT Trainer with HMI and SCADA	• For studying and understanding the application of IIoT to Process Control
22	Data Acquisition Trainer	• Configuration of Data Acquisition and Databases. • SQC and SPC Learning
23	Distributed Control System (DCS)	• All aspects of Measurement, Operation, Programming, Configuration, Control strategies of DCS for Discrete and Continuous Process Control.
24	Basic Analytical Instrumentation	• Set of Basic Lab Instruments such as pH , Conductivity, Gas Detectors etc for studying and analysing Chemical Properties of Process before and after Measurement/Control.
25	Engineering, Configuration and Training with Applications	• Process Measurement and Control Engineering Documentation • P&ID Drawings – Reading, Drawing • ISA Standard Codes, Symbols • P&ID / PFD / Process Flow Block Diagram • Instrumentation Design Basis • Control Room / Local Room Layout • IO List (Preferably the full dump of the Database – SPI) • Typical Loop Diagram for All System • Powering Scheme diagram • Earthing Layout / Grounding Layouts • IO Channel Assignment List or Nest Loading • Typical or Prototype – GA drawing for Cabinets (System / Marshalling / PDB / Server / Network cabinets) • As Built Drawings etc • Usage of Special Tools and Software Applications and Platforms

26	Software Licenses	• OS suits • Programming Software (PLC/HMI/SCADA) • SP3 InTools • DAS Software & Platform • DCS System Software and Simulation SW Suits • LabView • MySQL • Commissioning Software Suite
27	Prototype Demo Unit	A full-fledged Scaled down Prototype of a Process Model: Milk Processing Mini Dairy Plant
	Annexure-B • **Development, Curating and Supply of Concurrent & Emerging Technologies Curriculum & Learning Contents**	
01	Curriculum Content & LMS	a) Curriculum related to the Concept, Theory, Equipment, Systems, Technologies which is concurrent, Practical Oriented and conform to the Local and Global Skilling Standards and Purposes. b) Practice Oriented Curriculum and Learning Objectives (70% Practical,30% Theory) c) Pre-lab video tutorials, followed by in-lab guided experimentation. d) Simulation SW Packages (wherever Applicable) e) Laboratory Manual covering Instructions for Experiments, Reading & Recordings, Assessment Templates etc f) covering the very basic-to-Intermediate-to-future learningsand Experiments List in Electronic Format g) Assessment Formats and Tools **Assessment Strategy**: Lab reports, practical exams, and capstone projects evaluated against competency rubrics
02	Edu-KIOSK	**A SMART Table top Multi-Media Edu-KIOSK with** Pre-loaded: a) Audio-Video Lessons on Principle of Operation, Types, Variants, Specifications and Application Notes b) Laboratory Manual covering Experiments List, Instructions for Experiments, Reading & Recordings, Assessment Templates etc c) The KIOSK will also have option to connect to the LMS for self-Teaching and d) Objectives type Test and Assessment through back-end connectivity to the LMS.
	Annexure-C **Training Delivery to Trainers/Students for a minimum Period of 3 (THREE) Years**	

Technical Specifications of equipment to setup CoE in Manufacturing Process Control and Automation:

	ANNEXURE- A.1: Hardware & Software Goods Deliveries, On-site Installation and Configuration and Usage Training	
A	**Sensors Demo Bench - Analog**	**01 Set**
	A.1) Objective: The Analog Sensor Workbench is designed for hands-on training in industrial analog sensors used in process automation. It provides practical exposure to configuring, calibrating, interpreting, and troubleshooting sensors with industry-standard signals (4–20 mA, 0–10 V DC). The setup will make the students understand the various sensors for process parameters, their principle of operation, specification, selection, characteristic and connectivity and further allows into gain skills in signal conditioning, noise reduction, and analog-to-digital conversion. **A.2) Key Features:** Supports multiple analog signals (4–20 mA, 0–10 V DC). Modular design for safe, hands-on experiments. Suitable for academic, industrial training, and skill development. Emphasizes **industrial safety practices** for high-pressure systems. **Workstation with floor-mounted kit.** **Workstation:** The workstation is furnished with a floor-mounted arrangement and incorporates an industrial-grade particle board. The working area should be minimum dimensions of 1500mm x 450mm x 25mm (Thickness). The particle board, which is 25mm thick, features a 0.8mm Marino laminate on one side in a flat profile, while the other side is covered with a 0.6mm white balancing laminate. Additionally, the table's dimensions ought to be 1500X700X1400mm and is equipped with four caster wheels that include brake mechanisms. Additional pedestal wooden cabinet measuring approximately 450mm x 450mm x 700mm, comprising three drawers. The power supply console should be a rectangular box with dimensions of 1420X300X300mm, featuring two exhaust fans on the back side and screen printing on the front displaying relevant information. The table should be constructed using CR grade sheet metal and tubes to ensure longevity. The panel material needs to be both isolated and non-breakable at a thickness of 4mm. The workstation includes aluminium pillars measuring at least 120mm x 40mm x 1200mm and a modular horizontal aluminium profile sized at 1500mm x 50mm x15 mm with top grooves of no less than7 mm and bottom grooves of no less than10 mm. An optional attachment for securing a PC desktop and LCD monitor, along with a keyboard drawer, are also included. The standard size for the modular panels should be established at330 mm x220 mm to facilitate straightforward assembly. Moreover, all panels must be depicted through schematic diagrams to aid in understanding during experimentation. **A.3) Scope of Supply:** The workbench shall include but not be limited to the following: **Pressure Transmitter:** 0–2.5 bar, 4–20 mA, 24 V DC, **Qty: 01** **Level Transmitter:** 0–500 mm, 4–20 mA, 24 V DC, **Qty: 01** **Flow Meter:** 0–1000 LPH, 4–20 mA, 24 V DC, **Qty: 01** **Temperature Transmitter:** PT100, 0–100 °C, 4–20 mA , 24 V DC, **Qty: 01** **E/P Converter:** Input 4–20 mA, Output 3–15 psi, Supply 1.4 kg/cm², **Qty: 01** **Heater Control Card:** I/P 0–230 V AC, O/P 0-10 V DC , **Qty: 01** U- Tube manometer for flow measurement: **-01 Qty.** **Thermocouple Sensors:** J & K types, **Qty: 01 each** **RTD Sensor:** Pt100, digital interface compatible, **Qty: 01** **Bourdon Tube Pressure Gauge:**up to 4 kg/cm2, Analog readout for reference, **Qty: 01**	

	Load Cell: 2kg Analog 4-20mA **Valves:** different types of valve like globe valve, needle valve, control valve, positioners, vacuum valve, & safety valve, etc. **Qty: 01 each** **Accessories:** Buzzers, voltmeter, ammeter, terminal blocks, lugs, indicators, pushbuttons, process indicators, wiring. **Qty: 01 each** **Digital Multimeters:–** True RMS, CAT III/IV compliant, for voltage, current, resistance, and continuity measurement , HTC 830L/ Equivalent**,Qty: 01** **Current/Voltage Source:** 4-20mA/ 0-10V DC, 230V AC operated. **Qty : 01**	
B	**Sensors Demo Bench - Digital**	**01 Set**
	B.1) Objective: The Digital Sensor Workbench is designed for hands-on training in the application of digital sensors in industrial automation. It provides practical exposure to sensors producing **binary (ON/OFF), pulse, and frequency signals**, enabling learners to gain expertise in **digital sensor configuration, calibration, and signal processing, and troubleshooting**. **B.2) Key Features:** Supports **pulse, frequency, and ON/OFF outputs** for a variety of digital sensors. **Modular and safe design** for practical experiments. Provides **real-time diagnostics and troubleshooting practice**. Ideal for **academic and industrial training programs** in automation and process control. **Workstation with floor-mounted kit.** **Workstation** The workstation is furnished with a floor-mounted arrangement and incorporates an industrial-grade particle board. The working area should be minimum dimensions of 1500mm x 450mm x 25mm (Thickness). The particle board, which is 25mm thick, features a 0.8mm Marino laminate on one side in a flat profile, while the other side is covered with a 0.6mm white balancing laminate. Additionally, the table's dimensions ought to be 1500X700X1400mm and is equipped with four caster wheels that include brake mechanisms. Additional pedestal wooden cabinet measuring approximately 450mm x 450mm x 700mm, comprising three drawers. The power supply console should be a rectangular box with dimensions of 1420X300X300mm, featuring two exhaust fans on the back side and screen printing on the front displaying relevant information. The table should be constructed using CR grade sheet metal and tubes to ensure longevity. The panel material needs to be both isolated and non-breakable at a thickness of 4mm. The workstation includes aluminium pillars measuring at least 120mm x 40mm x 1200mm and a modular horizontal aluminium profile sized at 1500mm x 50mm x15 mm with top grooves of no less than7 mm and bottom grooves of no less than10 mm. An optional attachment for securing a PC desktop and LCD monitor, along with a keyboard drawer, are also included. The standard size for the modular panels should be established at330 mm x220 mm to facilitate straightforward assembly. Moreover, all panels must be depicted through schematic diagrams to aid in understanding during experimentation. **B.3) Scope of Supply:** The workbench shall include but not be limited to the following: **Pressure Switch:**, 0-10 Bar, Qty: 01 **Level Switch:**230v ac/24v operated, Float type, Qty: 01 **Inductive Proximity Sensor:** PNP/NPN, Qty: 01 **Capacitive Proximity Sensor:** PNP/NPN, 3-wire, Qty: 01 **Photoelectric Proximity Sensor:** Diffuse/retro-reflective type, Qty: 01 **Flow Sensor:** Digital pulse output, Qty: 01 **U-Tube Manometer (digital):** For calibration and reference, Qty: 01 **Accessories:** Digital indicators for flow, pressure, temperature & level, signal conditioners, pulse counters, buzzers, switches, terminal blocks, wiring, lugs, and mounting hardware. **RPM sensor with Indicator:Qty: 01**	

	Rotary encoder:Qty- 01 **Family of Proximity Sensors –** Range of inductive, capacitive, photoelectric, and ultrasonic sensors for non-contact detection across industrial applications- **Qty: 01 each for 1 setup**	
C	**Electro-Pneumatic Demo Bench**	**01 Set**
	C.1) Objective: The Pneumatic Systems Workbench provides hands-on training in **electro-pneumatic systems**, enabling learners to design, operate, and troubleshoot pneumatic circuits using PLC and **Relay-based control**. The platform covers key components like **cylinders, solenoid valves, relays, flow control devices, and logic valves**, preparing users for real-world applications in manufacturing, robotics, and automation. **C.2) Key Features:** Practical training in **relay based Logic circuits**. Covers **actuators, solenoid valves, and flow & logic elements**. Includes **system troubleshooting & optimization exercises**. Focus on **safe operation & maintenance** for pneumatic systems. • Designed for **industrial and academic training programs**. **C.3) Scope of Supply:** The workbench shall include but not be limited to the following: **Compressor Unit:** 1 HP, 50 L, twin-cylinder, oil free compressor, single-phase supply. **PLC Module-** CompactLogix L18 Controller, 24 VDC Only, Up to 8 Modules Expansion, POINT Bus Backplane, 16 DI (Sink), 16 DO (Source), 2 Ethernet Port (DLR), Up to 8 Ethernet/IP nodes, 512KB User Memory, 1GB SD Card Inbox. 2 Axes Integrated Motion/equivalent. **Cylinders:** Single-acting cylinder: 100 mm stroke, 20 mm bore – Qty: 01 Double-acting magnetic cylinder: 100 mm stroke, 20 mm bore – Qty: 01 **Sensors & Switches:** Reed switch– 24v dc operated, Qty: 02 Proximity sensor/limit switch (24 V DC, NC) – Qty: 02 **Valves:** 3/2-way & 5/2-way Single side & Double side solenoid valves with manual override & LED (24 V DC) – Qty: 03 3/2-way & 5/2-way lever/pneumatic/switch-actuated valves – Qty: 06 5/3-way lever-operated valve (closed centre) – Qty: 01 Flow control (one-way), shuttle (OR), and two-pressure (AND) logic valves – Qty: 03 **FRL Unit:** Filter, regulator, lubricator with integrated pressure gauge– Qty: 01 **Manifold:** 6 output ports with non-return valve. – Qty: 01 **Instrumentation:** Pressure gauge (0–10 bar, 63 mm) – Qty: 01 **Electrical & Control:** Pushbutton station (illuminated NO/NC switches). Relay station (3 relays, 4 contact sets each). Indicators (24 V DC) – Qty: 03. Buzzers (24 V DC) – Qty: 03. Power supply (85–265 V AC to 24 V DC, 4.5 A). **Hardware:** Hose pipes (6 mm), OD connectors (¼" & 1/8"). Profile plate: 1100 × 700 mm anodizedaluminum with carriers & mounting frames. Pneumatic workstation: 120 x 40 sq mm aluminum profile legs, wooden surface, 3-drawer pedestal (lockable) with castor wheels (2 lockable). Control panel: with 24/32 PLC I/P PCB Panel, 24/32 O/P PCB Panel, pushbutton, buzzer, indicator and distributor, relay boxes.	

D	Electro-Hydraulic Demo Bench	01 Set

D.1) Objective:

The Hydraulic Systems Workbench is a practical training platform for learning **fluid power principles** and their applications in industrial automation. It provides hands-on experience with **single-acting & double-acting cylinders**, **directional control valves**, and **hydraulic power packs**, along with **Relay-based control circuits**. Learners develop skills in **system design, operation, calibration, and troubleshooting**, as well as safe practices for working with high-pressure systems.

D.2) Key Features:

Practical training in **hydraulic circuits** (Relay-based).
Modular design for **safe experimentation and reconfiguration**.
Covers **system operation, diagnostics, and troubleshooting**.
Emphasizes **industrial safety practices** for high-pressure systems.
Suitable for **academic and industrial training programs** in fluid power and automation.

D.3) Scope of Supply:

The workbench shall include but not be limited to the following:
Hydraulic Power Pack: Gear pump (2.5 LPM, 70 bars), pressure relief valve with locking, suction & return filters, pressure line & return line manifolds with 4 ports each.
PLC module
CompactLogix L18 Controller, 24 VDC Only, Up to 8 Modules Expansion, POINT Bus Backplane, 16 DI (Sink), 16 DO (Source), 2 Ethernet Port (DLR), Up to 8 Ethernet/IP nodes, 512KB User Memory, 1GB SD Card Inbox. 2 Axes Integrated Motion/equivalent
Drip Tray: Steel, 1160 mm × 760 mm.
Cylinders:
Single acting cylinder, stroke 200 mm, dia 25 mm, test pressure 100 bar – Qty: 01
Double acting cylinder, stroke 200 mm, dia 25 mm, test pressure 100 bar – Qty: 01
Valves:
4/2-way single solenoid valve (¼", manual override, LED, 24 V DC) – Qty: 01
4/3-way double solenoid valve (¼", manual override, LED, 24 V DC) – Qty: 01
3/2-way & 4/3-way lever-operated valves (closed & tandem centre, ¼") – Qty: 03
Pressure relief valve (direct-operated) – Qty: 01
Flow control valve with check (¼") – Qty: 01
Non-return valve (¼") – Qty: 01
Pilot-operated check valve – Qty: 01
4-way P & T distributor – Qty: 01 each
Instrumentation:
Pressure gauge (0–100 bar, glycerine-filled) – Qty: 01
Pressure switch (230 V AC, NC) – Qty: 01
Hose pipes (2 meter- 2 Qty, 1 meter-5 Qty, ½" meter-3 Qty) – Qty: 10
T-connectors with quick couplings & QRC couplings for plug-and-play.
Proximity sensor assembly-04 Qty. (3-wire PNP, 24 V DC).
Relay station (3 relays, 4 contact sets each).
Pushbutton station (illuminated NO/NC switches).
Indicators (24 V DC) – Qty: 03.
Buzzers (24 V DC) – Qty: 03.
Power supply (85–265 V AC to 24 V DC, 4.5 A).
Profile plate: 1100 × 700 mm anodizedaluminum with carriers & mounting frames.
Control panel: with 24/32 PLC I/P PCB Panel, 24/32 O/P PCB Panel, pushbutton, buzzer, indicator and distributor, relay boxes.

E	**Electrical Safety & Earthing Trainer**	**01 Set**
	E.1) Objective: The **Electrical Safety & Earthing Trainer** is designed to provide practical training in **earthing (grounding) techniques, fault simulation, and protective device operation** in industrial and commercial electrical systems. It helps learners understand the principles of electrical safety, **earth fault analysis, relay operation, and protective device coordination**, ensuring they are equipped for safe installation, troubleshooting, and maintenance practices in real-world environments. **E.2) Key Features and Learning Objectives:** **Understanding Earthing Systems** – Equipment and system earthing concepts, their role in preventing electrical hazards. **Protective Device Training** – Hands-on experience with MCBs, ELCBs, earth fault relays, and IDMT relays. **Fault Simulation & Measurement** – Creation of earth faults and measurement of leakage currents and tripping times. **Overcurrent & Time Relay Exercises** – Study of overcurrent, definite time, and IDMT relay settings for protection coordination. **Practical Safety Applications** – Simulation of human body earthing and use of multifunction meters for system analysis. **E.3) Technical Specifications:** **3-Phase DOL Starter Panel** – With 4-pole MCB, 9A contactor (230V/50Hz/11VA coil). – **1 No.** **ELCB Panel** – 2-pole, 40A/30mA leakage current protection. – **1 No.** **Fault Simulation Module** – Fault switch with bulb, resistor, choke, and earth fault push switch. – **1 No.** **3-Phase Multifunction Meter Panel** – 3-phase, 415V, CT input 5A, LCD/LED display, V/A/Hz/PF/KVA/KW/KWH readings. – **1 No.** **Overcurrent & Time Relay Panel** – AC ammeter (20A), elapsed time counter. – **1 No.** **Relay Panel** – With 2 NO & 2 NC contacts, 5A current rating, 24VDC coil. – **1 No.** **Protection Relays** – **1 Set** **CT & Resistive Load Panel** – 3 CTs (5/5A), selectable load resistors (100–225Ω, 200W each). – **1 No.** **Power Supply Console** – Size: 1420×300×300mm, with dual exhaust fans and front screen printing. – **1 No.** **Aluminum Frame** – 120×40mm pillars, modular 50×15mm horizontal profile, grooved for panel mounting. – **1 Set** **Safety Features** – Emergency switch, ELCB-protected AC sockets (2 Nos.), and 3-phase industrial socket. – **1 Set** **Accessories** – 4mm shrouded banana sockets, patch cords, ferrules, panel schematics, and labeled wiring terminals. – **1 Lot** **Optional Attachments** – PC mounting bracket, LCD monitor stand, and keyboard drawer. – **1 Set** **Documentation** – Detailed training manuals with experiment exercises on earthing, fault creation, relay settings, and safety analysis. – **1 Set** **Workbench** – Industrial-grade particle board with laminate finish, approx. size: 1600×1500×700mm, mounted on caster wheels with brakes; includes wooden cabinet (450×450×700mm) with drawers. – **1 No.**	
F	**Instrumentation Installation Trainer**	**01 Set**
	F.1) Objective The Instrumentation Installation Trainer is designed as a complete field-installation practice skid for training in the mounting, connection, termination, and maintenance of industrial instrumentation. The skid shall be suitable for **indoor and outdoor** installation practice and must	

	accommodate **two devices of each instrument type**. It allows trainees to perform real-world activities such as sensor mounting, transmitter installation, cable termination, tubing layout, control valve installation, and field maintenance procedures as seen in process **industries.** **F.2) Key Features & Learning Objectives** Installation and mounting of field sensors & transmitters Flow meter, closed-tank level, and pressurized tank installation practice Control valve installation with actuator, I/P converter, and FRL integration Cable termination practice including junction boxes, terminal blocks, lugs, ferrules & glands Tubing and piping practice using industrial instrumentation hardware (impulse lines, fittings, manifolds) Cable tray fabrication and installation practice Field layout practice including routing, supports, brackets, clamps, and tagging Hands-on exposure to industrial installation, wiring standards, field troubleshooting, and maintenance **F.3) Scope of Supply** The Instrumentation Installation Trainer shall consist of the following: **Skid Structure (1 No.)** – Heavy-duty steel frame suitable for outdoor use; powder-coated; provisions to mount *two instruments of each type*; supports for tubing, cable trays & hardware -2mX1.7mX0.7m floor standing setup. **Pressure Instruments (2 Sets)** – Pressure transmitters (4–20 mA), pressure gauges, manifolds, impulse tubing & fittings **Level Instruments (2 Sets)** – DP/Capacitance level transmitters, level switches, mounting brackets **Flow Instruments (2 Sets)** – Turbine/rotameter-type flow meters with connections & adapters **Temperature Instruments (2 Sets)** – RTD sensors with thermowells and temperature transmitters (4–20 mA) **Control Valve Assembly (1 Set)** – Pneumatic control valve with actuator, positioner / I/P (optional), FRL unit, air tubing & fittings **Tubing & Piping Kit (1 Set)** – GI/CPVC/SS tubing (¼" & ½"), elbows, tees, unions, reducers, ferrules, tube clamps **Junction Box & Termination Kit (1 Set)** – Junction box 600X400mm, DIN rail terminal blocks, cable glands, ferrules, lugs, gland plates **Cable Tray Arrangement**– Suitable GI cable tray sections, supports, clamps, brackets **Instrumentation Cables to practice at least for 1 year** – Multi-core shielded cables for practice **Mounting Hardware to practice at least for 1 year(1 Set)** – U-bolts, saddle clamps, brackets, fasteners, tag plates **Documentation (1 Set)** – Installation manual, termination diagrams, tubing layout, safety guidelines	
G	**Panels & Panel Wiring Training Kit**	**01 Set**
	G.1) Objective: The Panel Engineering, Installation & Wiring Trainer provides hands-on experience in **designing, assembling, installing, and troubleshooting** industrial control panels. It equips learners with skills to **integrate electrical and automation components**, ensuring safe, reliable, and efficient control panel operation. **G.2) Key Features and Learning Objectives:** **Control Panel Design & Layout** – Covers components (MCBs, relays, contactors, PLCs, HMIs, power supplies), ventilation, and ergonomic layout as per industry standards. **Wiring Techniques & Power Distribution** – Hands-on practice in single-phase & three-	

phase wiring, cable routing, and segregation of power & signal wiring.
Integration of Control Components – Interfacing PLCs, relays, drives, and sensors with analog/digital I/O wiring for real-world automation setups.
Troubleshooting & Maintenance – Use of multimeters, insulation testers, and oscilloscopes for fault-finding, continuity testing, and preventive maintenance exercises.

G.3) Technical Specifications & Bill of Material:

Training Panel Enclosure – Floor-mounted panel, double-door, with gland plates & cable management. – **1 No.**
MCBs / MCCBs:
Rated Current: **6 A, 16 A, 32 A**
Rated Voltage: **230 V AC (1Ø), 415 V AC (3Ø)**
Breaking Capacity: **Minimum 6 kA (MCB), 10–25 kA (MCCB)**
Poles: **SP, DP, TP / TPN as applicable**
Standards: **IEC / IS compliant**
Contactors:
Utilization Category: **AC-3**
Rated Operational Voltage: **415 V AC**
Coil Voltage: **230 V AC / 24 V DC**
Electrical & mechanical interlocking supported
Overload Relays:
Type: **Thermal overload relay**
Adjustable Current Range: Matching motor ratings
Protection: **Overload and phase failure**
Reset: Manual / Auto: **Quantity:1 Lot**
PLC (Compact Type) – With 14DI/10DO, 2AI/2AO, and communication ports Ethernet. Make: Siemens/Allen Bradley/equivalent – **1 No.**
HMI (7") – Touchscreen display with Ethernet connectivity for process visualization, make Wecon/equivalent. – **1 No.**
Variable Frequency Drive (VFD) – Capacity: 1 HP (0.75 kW), Input: 1Φ 230 V / 3Φ 415 V AC, Output: 3Φ 0–50 Hz, Communication: RS-485 (Modbus RTU), Inbuilt PID function, Make: Fuji / Equivalent. – 1 No.
Phase Induction Motor – Capacity: 1 HP (0.75 kW), Voltage: 415 V– 1 No.
Power Supplies – 230V AC to 24V DC, SMPS. – 1 **Nos.**
Relay Boards – 4&8 -channel, 24V DC coil-operated relay interface. – **1 No.**
Terminal Blocks – For neat and secure wiring of control & power circuits. – **1 Lot**
Industrial Switchgear – Selector switches, push buttons, emergency stops, pilot lamps. – **1 Lot**
Wiring & Accessories – Industrial-grade wires, lugs, ferrules, cable ties, trunking, panel stickers. – **1 Lot**
Measurement Instruments – Digital multimeters, clamp meter, and insulation resistance tester for diagnostics. – **1 Set**
Cooling & Safety Accessories – Fan & filter units, panel lamps with door limit switches, earthing bus bars. – **1 Lot**
Ethernet Switch – 8-port unmanaged switch for PLC-HMI-PC communication. – **1 No.**
Cables – Ethernet, power, and control cables with pre-crimped ends for quick connection. – **1 Lot**
Documentation – Panel layout drawings, wiring diagrams, and training manuals. – **1 Set**
Workbench – Industrial-grade particle board with laminate finish, approx. size: 1600×1500×700mm, mounted on caster wheels with brakes; includes wooden cabinet (450×450×700mm) with drawers. – **1 No.**

H	Universal Calibration & Work Bench	01 Set

H.1) Objective:

The **Universal Calibration & Work Bench** is designed for hands-on training in **calibrating and maintaining industrial instruments** (pressure, temperature, flow, and level) used in process control applications. It equips learners with the **technical expertise for accurate calibration, error analysis, and documentation** as per international standards, preparing them for roles in **instrumentation, quality assurance, and maintenance** across multiple industries.

H.2) Key Features and Learning Objectives:

Calibration Fundamentals – Covers calibration principles, traceability, error detection, and compliance with ISO, ANSI, and NIST standards.
Industrial Instrument Calibration – Hands-on calibration of pressure, temperature, flow, and level instruments using industry-standard tools.
Calibration Equipment & Techniques – Use of dry block calibrators, multimeters, deadweight testers, and signal simulators for precise adjustments.
Loop Testing & Signal Simulation – Testing of 4–20 mA, 0–10 V, resistance, and frequency signals for sensor and loop verification.
Documentation & Compliance – Recording calibration data, generating reports, and ensuring adherence to ISO/IEC 17025 requirements.

H.3) Technical Specifications:

Work Station – Industrial-grade calibration bench with modular mounting compartments, storage, and ergonomic design. – **1 No.**
Digital Storage Oscilloscope (DSO) :
Bandwidth: **100 MHz**Channels: **4 analog input channels**
Sampling Rate: **Up to 2 GS/s**
Memory Depth: **Up to 24 Mbps**
Display: **WVGA (800 × 480) color TFT LCD with intensity grading**
Waveform Capture Rate: **Up to 30,000 wfms/s**
Vertical Scale: **1 mV/div to 10 V/div**
Optional Features: **2-channel function generator up to 25 MHz, serial bus analysis**
Recording & Playback: **Up to 60,000 waveform frames**
Pressure Calibrator – Handheld/bench-type, range up to 50 bar, with fine adjustment, 0.02% FS accuracy. – **1 No.**
Deadweight Tester – pressure Range: 0 to 100 bar

- Accuracy: ±0.05 % of reading
- Medium: Mineral oil / hydraulic oil (low viscosity)
- Piston-Cylinder Assembly: Hardened stainless steel, interchangeable type For high-accuracy pressure calibration oil-based, with traceable weights. – **1 No.**

Bath Temperature Calibrator– Dry blocks temperature calibrator, range –20°C to 650°C, with interchangeable inserts. – **1 No.**
Multifunction Process Calibrator – Capable of sourcing/simulating 4–20 mA, 0–10 V, RTD, thermocouple signals, and frequency. – **1 No.**
Digital Multimeters – True RMS, CAT III/IV compliant, for voltage, current, resistance, and continuity measurement. – **1 No.**
Loop Calibrator: 4–20 mA loop source and measurement tool for process control loops. – **1 No.**
Flow Meter Calibration Setup – Simulated flow calibration rig with adjustable flow rates and reference Rotameter Sensor. – **1 Set**
Level Sensor Calibration Setup – Simulated tank with adjustable level points for level sensor testing and calibration. – **1 Set**
Signal Generator – Frequency Range 0.3 Hz - 5 MHz, Sine, Square, Triangle, Ramp, Pulse and TTL outputs 20 Vpp output and DC Offset Rise time & Fall time £ 50 ns Digital Readout with backlit Display TTL output 50Ω Output Impedance. Modulation FM, PM, AM, PWM, FSK, ASK, PSK. – **1 No.**

	Documentation & Software – Calibration management software for storing calibration data and generating reports. – **1 Set** **Soldering Station :** ESD-safe, temperature-controlled soldering station with adjustable temperature range (typically 200–450 °C), rapid heat-up, and interchangeable tips, suitable for electronics assembly, maintenance, and laboratory training use.**-1qty** **Tool Kit** – Calibration tools, hand tools, and accessories (wrenches, test leads, connectors). – **1 Set** **Safety Accessories** – ESD protection, grounding points, and insulated mats for safe calibration activities. – **1 Lot** **Panel Accessories** – Wiring ducts, terminal blocks, cable management, and labelling for organized setup. – **1 Lot** **Training Manuals** – Detailed operation manuals, calibration procedures, and exercise booklets. – **1 Set** • **Work Station** – Industrial-grade particle board with laminate finish, approx. size: 1600×1500×700mm, mounted on caster wheels with brakes; includes wooden cabinet (450×450×700mm) with drawers. – **1 No.**	
I	**Control Valve Characteristics Trainer**	**01 Set**
	I.1) Objective: The **Control Valve Characteristics Trainer** is designed to provide hands-on training in the types, characteristics, and operational behavior of various control valves in industrial process. This system allows students to explore the principles of flow regulation, valve performance, and process optimization, ensuring they gain essential skills in valve selection, calibration, and maintenance for different applications. **I.2) Key Features and Learning Objectives** Demonstrates three control valve characteristics: **Quick Opening, Linear, and On-Off**. Provides **hands-on training** for valve calibration, tuning, and troubleshooting. Covers **pneumatic, electro-pneumatic actuation**. Explains **fail-safe configurations** (Air-to-Close) for safety-oriented learning. Integrates **current source (4–20 mA)** for positioner control and testing. **I.3) Technical Specifications** **Sump Tank** – 01 No, Capacity: 30 liters, **Piping** –¾″ CPVC Piping with ¾″ ball valves: **As per Connection.** **Centrifugal Pump** – 01 No. ½ H.P. Supply: 1φ 230 V AC 50/60 Hz. **Pneumatic Control Valves** – Total 3 Nos.: **A] Equal Percentage Valve**– 01 No., Size: ½″ / Type: Two-way Globe type (Air to Close), Cv: 5 US GPM, Diaphragm actuator, **B] Linear Valve** – 01 No. Size: ½″ Type: Two-way Globe type (Air to Close), Cv: 5 US GPM, Diaphragm actuator, **C] Quick Opening Valve** – 01 No. Size: ½″ Type: Two-way Globe type (Air to Close), Cv: 5 US GPM, Diaphragm actuator, **Pressure Gauge** – 06 Nos. Dial Size: 50/60 mm, Glycerin Filled. Range: 0–4 Kg/cm². **Electro Pneumatic Converter**: Supply: 1.4 Kg/cm², Input: 4–20 mA, Output: 0.2–1.0 Kg/cm². **Rotameter** – 01 No. Range: 100–1000 LPH, Glass tube type / Acrylic body, Connection: ½″, mounting: Inlet Bottom Outlet Top. **Current Source (4–20 mA Calibrator)** – 01 No. Input Supply: 230 V AC 50/60 Hz, Output: 4–20 mA. **F.R.L. Unit** – 01 No. 0–10 Kg/cm² with pressure gauge. **Air Compressor** – 01 No. Tank capacity: 50 Liters, Discharge: 2 CFM, Motor: 1 H.P. 110 V / 230 V AC 50/60 Hz operated, working pressure: 5–6 Kg/cm². **Safety valve** – 01 No.**:** Spring-loaded pressure relief valve (PRV) **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism)	

	Overall System Dimensions (Approx.):5 ft (Length) × 3 ft (Width) × 4 ft (Height) **Construction:** Rigid industrial structure suitable for laboratory and training use **Weight:Approximately 85 kg**	
J	**Single Loop Temperature Control Trainer**	**01 Set**
	J.1) Objective: The Water Temperature Control Trainer is designed for practical study of closed-loop water temperature control using PID control strategies. It enables learners to understand feedback control, heater actuation. **J.2) Key Features:** Demonstration of **single-loop P, PI, and PID pressure control**. **Step response & transient behaviour** analysis. **Robust MS frame design** for long-term lab and industrial use. **Manual & Auto tuning** for understanding controller dynamics. **Integration capability** with external PLC/DCS systems. **Safe, mobile design** with MS powder-coated frame and caster wheels. **Industrial-grade components** ensuring long life and realistic training experience. Emphasizes **industrial safety practices** for high-pressure systems. Suitable for **academic and industrial training programs** in fluid power and automation. **J.3) Scope of Supply:** The Water Temperature Control Trainer shall consist of the following components (**all 1 Qty each unless specified**): **Temperature Transmitter (1 No.)** – Input: RTD, Output: 4–20 mA, DC Supply: 24 V, Range: 0–100ºC. **Sump Tank (1 No.)** –Capacity: 30 Liters, **Process Tank with Heater (1 No.)** – Geyser-based heating or Heater, Capacity: 2-10 Litters, with Thermostat. **Thyristorized Phase Angle Control Card (1 No.)** – Input: 4–20 mA, Output: 0–230 V AC, 6 A max. **Rotameter (1 No.)** – Size: ½", Range: 1000 LPH, Glass Tube Type / Acrylic Body. **PID Controller (1 No.)** –Input: 4–20 mA / Universal; Output: 4–20 mA; full display for PV & SP **Electrical Control Panel (1 No.)** – MS Powder-coated with switches, indicators, test points, PID controller on fascia, neat wiring (0.5/1/1.5 sq. mm multi-strand with insulated lugs & ferruling), cable tray routing **Centrifugal Pump (1 No.)** – ½ HP, 1φ 230 V AC supply, Surface mounting. **Piping with Valves (1 Set)** –CPVC Piping with ball valves (As per Requirement)**.** **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):4.5 ft (Length) × 2 ft (Width) × 5 ft (Height)** **Construction:** Rigid industrial structure suitable for laboratory and training use **Weight:Approximately 80 kg**	
K	**Single Loop Pressure Control Trainer**	**01 Set**
	K1) Objective: The Air Pressure Control Trainer is designed for **practical demonstration and study of air pressure control systems** using **pneumatic actuation**. It allows experimentation with **P, PI, and PID control modes**, **step response analysis**, **manual vs. automatic control.** **K.2) Key Features:** Demonstration of **single-loop P, PI, and PID pressure control**. **Step response & transient behaviour** analysis. **Robust MS frame design** for long-term lab and industrial use.	

	Manual & Auto tuning for understanding controller dynamics. **Integration capability** with external PLC/DCS systems. **Safe, mobile design** with MS powder-coated frame and caster wheels. **Industrial-grade components** ensuring long life and realistic training experience. Emphasizes **industrial safety practices** for high-pressure systems. Suitable for **academic and industrial training programs** in fluid power and automation. **K.3) Scope of Supply:** The Air Pressure Control Trainer shall consist of the following components (**all 1 Qty each unless specified**): **Pressure Vessel (1 No.)** – Cylindrical, Diameter: 150 mm, Length: 300 mm, Capacity: 15 Kg/cm² **Piping with Valves (1 Set)** – ¾″ CPVC with¾″ **ball valves**. **Air Pressure Transmitter (1 No.)** – Range: 0–2.5, Output: 4–20 mA, Supply: 24 V DC 50 mA, **Pneumatic Control Valve (1 No.)** – Size: ½", Equal % characteristics. **E/P Converter (1 No.)** – Input: 4–20 mA; Output: 3–15 psi. **AFR/FRL Unit (2 Nos.)** – Air Filter, Regulator & Lubricator for me /P Converter (0–10 Kg /cm², with gauge, ¼" NPT/BSP). Air Pressure Regulator for system input air (0–10 Kg/cm², with gauge, ¼" NPT/BSP). **PID Controller (1 No.)** –Input: 4–20 mA / Universal; Output: 4–20 mA; full display for PV & SP **Electrical Control Panel (1 No.)** – MS Powder-coated, with switches, indicators, test points, PID controller on fascia, neat wiring (0.5/1/1.5 sq. mm multi-strand with insulated lugs & ferruling), cable tray routing **Air Compressor**– Tank: 50 L; Discharge: 2 CFM; Motor: 1–2 HP, 230 V AC; Working Pressure: 5–6 Kg/cm². **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):4.5 ft (Length) × 2 ft (Width) × 5 ft (Height)** **Construction:** Rigid industrial structure suitable for laboratory and training use **Weight:Approximately 80 kg**	
L	**Single Loop Level Control Trainer**	**1 Set**
	L.1) Objective: The Level Control System Trainer is designed for academic and industrial training to demonstrate the principles of feedback-based level control. It allows study of ON-OFF, P, PI, and PID controller actions, manual/automatic tuning, open-loop & closed-loop responses, and transient behaviour analysis. It supports integration with external PID and DCS controllers for advanced experimentation. **L.2) Key Features:** Training on single-loop P, PI, and PID control with real-time observation. ON-OFF control demonstration with float-level switching. Manual & Auto tuning for controller performance evaluation Integration with external PLC/DCS systems. Robust MS frame & mobile design for ease of use in labs. Suitable for academic and industrial training programs in fluid power and automation. Emphasizes industrial safety practices for high-pressure systems. **L.3) Scope of Supply:** The **Level Control System Trainer** shall consist of the following components **(all 1 Qty each unless specified):** **Sump Tank (1 No.)** – Stainless Steel (1.5 mm) / P.P. (5 mm), Capacity: 30 L, **Level Tank (1 No.)** – Acrylic, Capacity: 10-15 L,	

	Piping with Valves (1 Set) –CPVC Piping with ball valves (As per Requirement). **Centrifugal Pump (1 No.)** – ½ HP, Single-phase, 230 V AC, Surface mounting. **Level Transmitter (1 No.)** –, Range: 0–500 mm, Output: 4–20 mA, Supply: 24 V DC 100 mA. **Pneumatic Control Valve (1 No.)** – Size: ½", , Equal % characteristics, **Rotameter (1 No.)** – Range: 100–1000 LPH, Glass tube/Acrylic body, ½" connection. **Level Switch (1 No.)** – Float operated **E/P Converter (1 No.)** – Input: 4–20 mA; Output: 3–15 psi. **Air Filter, Regulator & Lubricator (1 No.)** – Range: 0–10 Kg/cm², with pressure gauge, **Power Supply (1 No.) –** 24 V DC, 4.5 A, **PID Controller (1 No.)** –Input: 4–20 mA / Universal; Output: 4–20 mA full display for PV & SP **Electrical Control Panel (1 No.)** – MS Powder-coated, with switches, indicators, test points, PID controller on fascia, neat wiring (0.5/1/1.5 sq. mm multi-strand with insulated lugs & ferruling), cable tray routing **Air Compressor (1 No.)** – Tank: 50 L; Discharge: 2 CFM; Motor: 1–2 HP, 230 V AC; Max Pressure: 8–10 Kg/cm²; Working pressure: 5–6 Kg/cm². **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):4.5 ft (Length) × 2 ft (Width) × 5 ft (Height)** **Construction:** Rigid industrial structure suitable for laboratory and training use **Weight:Approximately 80 kg**	
M	**Single Loop Flow Control Trainer**	**1 Set**
	M.1) Objective: The Flow Control System Trainer is designed for academic and industrial training in feedback-based flow control. It enables learners to study ON-OFF control, open/closed-loop responses, manual and auto tuning, and transient response analysis. The trainer supports P, PI, and PID control modes and can be integrated with external PLC and DCS controllers for advanced experimentation. **M.2) Key Features:** Hands-on training for P, PI, PID loop control with real-time observation. Manual & Auto tuning for understanding controller dynamics. Integration capability with external PLC/DCS systems. Safe, mobile design with MS powder-coated frame and caster wheels. Industrial-grade components ensuring long life and realistic training experience. Emphasizes industrial safety practices for high-pressure systems. Suitable for academic and industrial training programs in fluid power and automation. **M.3) Scope of Supply:** The Flow Control System Trainer shall consist of the following components **Sump Tank (1 No.) –**Capacity: 30 L, **Piping with Valves (1 Set)** – CPVC Piping with ½" CPVC ball valves. **Centrifugal Pump (1 No.) –** ½ HP, Single-phase, 230 V AC. **Flow Meter (1 No.) –**Range: 0–1000 LPH; Output: 4–20 mA; Supply: 24 V DC. **Pneumatic Control Valve (1 No.) –** Size: ½", Equal % characteristics, **Rotameter (1 No.) –** Range: 100–1000 LPH, Glass tube / Acrylic body. **E/P Converter (1 No.) –** Input: 4–20 mA; Output: 3–15 psi. **Air Filter, Regulator & Lubricator (AFR/FRL Unit)** (1 No.) – Range: 0–10 Kg/cm², with pressure gauge. **Power Supply (1 No.)** – 24 V DC, 4.5 A. **PID Controller (1 No.) -** Input: 4–20 mA / Universal; Output: 4–20 mA; full display for PV	

	& SP **Electrical Control Panel (1 No.)** – MS Powder-coated panel with minimum 3mm to house all the components like, with switches, indicators, test points, PID controller on fascia, terminal connectors on DIN rail, neat wiring (0.5 sq. mm multi-strand with insulated lugs & ferruling), proper cable tray routing **Air Compressor (1 No.) –** Tank: 50 L; Discharge: 2 CFM; Motor: 1–2 HP, 230 V AC; Max Pressure: 8–10 Kg/cm²; Working pressure: 5–6 Kg/cm². **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):4.5 ft (Length) × 2 ft (Width) × 5 ft (Height)** **Construction:** Rigid industrial structure suitable for laboratory and training use **Weight: Approximately 80 kg**	
N	**Multi-Variable Discrete PID Control Trainer**	**1 Set**
	N.1) Objective The Multi-Process Control System Trainer is designed to provide academic and industrial training in **flow, level, temperature, and pressure control**. It enables learners to study ON–OFF control, open/closed-loop characteristics, manual and auto tuning, P/PI/PID controller action, transient response, cascade, ratio, The system uses real industrial-grade pumps, valves, transmitters, tanks, heaters. **N.2) Key Features** Supports **Flow, Level, Pressure, and Temperature** control experiments Hands-on training in **P, PI, PD, PID** loop control with real-time observation Manual and auto tuning for controller dynamics understanding Cascade, ratio, and on-off control experiments included Integration with external **PLC / DCS / SCADA,** RS-485 Industrial-grade components: pumps, valves, transmitters, sensors, piping MS powder-coated structure with caster wheels for mobility Enhanced electrical and mechanical safety features User-friendly layout with mimic charts, neat wiring, DIN rail terminals Leak-proof, robust piping with PP components for long service life **N.3) Scope of Supply** The Multi-Process Control System Trainer shall consist of the following components: **Sump Tank (1 No.)** – SS/ PP, capacity 50 L; **Level Tank (1 No.)** – Acrylic **Process / Temperature Tank (1 No.)** – Insulated tank with 1-3 kW heater and thermostat, **Centrifugal Pumps (2 Nos.)** – ½ HP, 230 V AC **Pressure Vessel (1 No.)** – Cylindrical **Piping Set (1 No.)** – ¾″ CPVC with ball valves **Flow Meters (2 Nos.)** – ranges 0–1000 LPH, 4–20 mA output, 24 V DC supply **Level Transmitter (1 No.)** – 0–500 mm range, 4–20 mA output, 24 VDC, **Pressure Transmitter (1 No.)** – 0–2.5 kg/cm², 4–20 mA. **Temperature Transmitter (1 No.)** – RTD input, 4–20 mA output, range 0–100°C **Thyristorized Phase Angle Controller (1 No.)** – Input 4–20 mA; Output 0–230 VAC, 10 A max **Pneumatic Control Valves (2 Nos.)** – ½”, equal-percentage **E/P Converter (1 No.)** – Input 4–20 mA, output 3–15 psi **A.F.R / F.R.L Unit (1 No.)** – 0–10 kg/cm² with gauge, ¼” NPT/BSP **Level Switch (1 No.)** – Float type, 24 VDC, 0.5 A **Current Meters** – 0–20 mA, 230 VAC	

	Power Supply (1 No.) – 24 V DC, 5 A **PID Controllers (2 Nos.)** – Single & dual input, 4–20 mA I/O**.** **Electrical Control Panel (1 No.)** – MS powder-coated; switches, indicators, test points, PID housing, DIN rail terminals, ferruled wiring, cable tray routing **Air Compressor (Optional)** – 20/24 L, 2 CFM, 1–2 HP, 230 VAC, 5–6 kg/cm² working pressure **Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):6 ft (Length) × 2.5 ft (Width) × 6 ft (Height)** **Construction:** Heavy-duty industrial structure suitable for DCS and process automation training **Weight:Approximately 250 kg**	
O	**Heat Exchanger Control Trainer**	**1 Set**
	O.1) Objective: This trainer enables study of heat exchanger dynamics and temperature control using a closed-loop PID controller. It is designed for hands-on learning of shell & tube / plate heat exchangers, process temperature control, and integration with SCADA/DCS systems for advanced automation training. **O.2) Key Features:** Demonstration of **single-loop P, PI, and PID pressure control**. **Step response & transient behaviour** analysis. **Robust MS frame design** for long-term lab and industrial use. **Manual & Auto tuning** for understanding controller dynamics. **Integration capability** with external PLC/DCS systems. **Safe, mobile design** with MS powder-coated frame and caster wheels. **Industrial-grade components** ensuring long life and realistic training experience. Emphasizes **industrial safety practices** for high-pressure systems. Suitable for **academic and industrial training programs** in fluid power and automation. **O.3) Scope of Supply:** The Heat Exchanger Temperature Control Trainer shall consist of the following components (all 1 Qty each unless specified): **Hot Water Tank (HWT)** –Capacity: 30-50 L; **Cold Water Tank (CWT)** –Capacity: 50 L; **Piping with Valves (1 Set)** –CPVC Piping with **ball valves (As per Requirement).** **Pump for HWT** – Type: Centrifugal, Capacity: ½ HP, 1φ, 230 V AC. **Pump for CWT** – Type: Centrifugal, Capacity: ½ HP, 1φ, 230 V AC. **Heater Coil** – Circular, 1” dia., Side-mounted; Connection: 1½”; Power: 3–4 kW, 1φ 230 V AC. **Pneumatic Control Valve** – Size: ½”, Equal % characteristic, Cv: 5 US GPM, **Rotameter (2 Nos)** – Range: 100–1000 LPH, Glass Tube/Acrylic, ½” connections**.** **Thermostat / Temperature Controller** – Bi-metallic, Length: 8”, Side-mounted, Thermo well insertion type, Range: 0–150°C. **Four-Point Temperature Indicator** – Input: RTD Pt-100; Range: 0–100°C; Display: LCD; Panel-mounted; **Heat Exchanger** – Shell & Tube / Plate type; Shell:; Tubes: Copper; Temp: 100°C. **Temperature Sensors (4 No’s)** – Type: Pt-100 (RTD), Length: 2”, ½” BSP **Skid / Frame** – Dimension: 70” × 20” × 48”, MS frame (40×40, 18 gauge), painted, with castor wheels. **E/P Converter** – Input: 4–20 mA; Output: 3–15 psi; **A.F.R. / F.R.L. Unit** – 0–10 Kg/cm², with pressure gauge ¼” NPT / BSP.	

	Miniature Level Switch – Side-mounted, NO/NC selectable, 24 V DC, 0.5 A switching current. **PID Controller (1 No.)** – Input: 4–20 mA / Universal; Output: 4–20 mA; full display for PV & SP **Electrical Control Panel** – MS powder-coated, with switches, indicators, test points, PID on fascia, terminal connectors (DIN rail), neat wiring (0.5 sq mm with lugs & ferruling), cables routed via **Air Compressor (Optional)** – Tank: 50 L; Discharge: 2 CFM; Motor: 1–2 HP, 1φ, 230 V AC; Working Pressure: 5–6 Kg/cm². **O.4) Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):6 ft (Length) × 2.5 ft (Width) × 5.5 ft (Height)** **Construction:** Rigid industrial structure suitable for continuous laboratory use **Weight:Approximately 95 kg**	
P	**Reactor and Pre-Heater Control Trainer**	**1 Set**
	P.1) Objective: The **Reactor and Pre-Heater Control Trainer**is designed to provide hands-on training in process control for chemical reaction and heat exchange systems. It enables learners to understand and apply principles of temperature, pressure, and flow control in continuous stirred-tank reactor (CSTR) operations and pre-heating processes, preparing them for real-world applications in chemical, petrochemical, and process industries. **P.2) Key Features and Learning Objectives** **Reactor and Pre-heater simulation** for training in chemical process and thermal system control. **Temperature, pressure, and flow regulation** with real-time monitoring and PID/PLC-based control. **Integration with automation systems** – manual and automatic control modes, PID tuning, and interlocks. **Energy efficiency concepts** through pre-heater operation and optimized heat transfer. **Troubleshooting and process optimization** for identifying and correcting operational issues. **P.3) Technical Specifications** **Hot Water Tank (HWT):** 01 No., Capacity: 80 liters, **Reactant Tanks:** 02 Nos., Capacity: 30 liters each with top cover. **Product Tank:** 01 No.,Capacity: 30 liters with top cover, **Centrifugal Pump for HWT:** 01 No., Capacity: ½ HP, 1φ 230 V AC, Temperature: up to 100 °C, **Piping with Valves (1 Set)** –CPVC Piping with **ball valves (As per Requirement).** **Centrifugal Pumps for Reactants:** 02 Nos. Capacity: ½ HP, 1φ 230 V AC, **Temperature Transmitter:** Input: RTD, Output: 4–20 mA, 24 V DC, **Pressure Transmitter:** Input: 0–2.5 / 0–4 Kg/cm², Output: 4–20 mA. **Level Transmitter:** Input: 0–500 mm, Output: 4–20 mA, 24 V DC. **Panel meter:** 3½ Digit Display, Inbuilt 24 V DC supply, Operation: 230 V AC 50 Hz. **Miniature Level Switch:** Float Type, Side mounting, NO/NC selectable, **E/P Converter:** 02 Nos., Input: 4–20 mA, Output: 3–15 psi, Connection: ¼″ NPT / BSP, Supply: 1.4 Kg/cm². **Heater Coil:** Circular shape, Power: 2-3 kWatts, 230 V AC. **Pneumatic Control Valves:** 02 Nos., Size: ½″, Characteristics: Equal percentage. **Rotameters:** 02 Nos., Range: 100–1000 LPH, Temperature: up to 100 °C. **Thermostat:** Bi-metallic type, Range: 0–150 °C, Side-mounting, Thermowell insertion.	

	Electrical Control Panel: MS powder-coated, with switches, indicators, test points, controllers, terminal connectors on DIN rail, 0.5 sq mm multistrand wiring with ferruling & lugs, neat dressing, PVC cable tray. **Electronic PID Controllers:** 02 Nos. Input: 4–20 mA, Output: 4–20 mA, Dual display (PV & SP). **Air Compressor:** Tank: 50 liters, Discharge: 2 CFM, Motor: 1–2 HP, 1φ 230 V AC, working pressure: 5–6 Kg/cm². **P.4) Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):6 ft (Length) × 2.5 ft (Width) × 5.5 ft (Height)** **Construction:** Rigid industrial structure suitable for continuous laboratory use **Weight:Approximately 95 kg**	
Q	**3 –Elements Boiler Control Trainer**	**1 Set**
	Q.1) Objective The **3-Element Boiler Control Trainer** is designed to provide hands-on training in the principles of boiler automation, focusing on the simultaneous management of drum level, steam pressure, and feed water flow. This system simulates real-world boiler operations, enabling learners to understand and implement advanced control strategies for safe, efficient, and reliable boiler performance. **Q.2) Key Features and Learning Objectives:** **3-Element Control Strategy** for regulating drum level, steam pressure, and feed water flow. **Feed water and steam flow regulation** to maintain stable operation under varying loads. **Combustion optimization** with air-to-fuel ratio control for energy efficiency. **PLC-based or relay-based automation** with manual and automatic control modes. **Safety interlocks, alarms, and troubleshooting** for fault diagnosis and emergency handling. **Q.3) Technical Specifications & Scope of supply:** **Boiler Drum (less than 75w ,non IBR)** – 01 No., Output: 200kg/h continuously **Feed Water Tank** – 01 No. Capacity: 30 liters. **Piping** – ¾″ CPVC Piping with ½″ / ¾″ ball valves: 10 Nos. **Centrifugal Pumps** – 02 Nos., ½ H.P., Supply: 1φ 110 V / 230 V AC 50/60 Hz. **Control Valves** – 02 Nos., Two-way Globe Type, Size: ½″ / ¾″. **Level Sensors** – 02 Nos., **Pressure Sensors / Gauges** – 04 Nos., Dial Size: 50/60 mm, Glycerin Filled, Range: 0–10 Kg/cm². **Temperature Sensor** – 01 No., RTD Type, Range: 0–200 °C. **Flow Measurement** – Rotameter: 01 No., Range: 100–1000 LPH , **Controller** – PLC-based for 3-element control strategy implementation. **Current Source (4–20 mA Calibrator)** – 01 No., Input Supply: 110 V / 230 V AC 50/60 Hz, Output: 4–20 mA. **A.F.R. / F.R.L. Unit** – 01 No., 0–10 Kg/cm² with pressure gauge. **Air Compressor** – 01 No., Tank capacity: 20 Liters, Discharge: 2 CFM, Motor: 1 H.P., 110 V / 230 V AC 50/60 Hz, Working pressure: 5–6 Kg/cm². **Q. 4) Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):6 ft (Length) × 2.5 ft (Width) × 5.5 ft (Height)** **Construction:** Rigid industrial structure suitable for continuous laboratory use **Weight:Approximately 95 kg**.	01

R	**Sequential and Ratio Control Trainer**	**1 Set**
	R.1) Objective: The **Sequential and Ratio Control Trainer** is designed to provide hands-on learning in industrial process control, focusing on sequential operations and ratio control in multi-tank systems. This setup simulates real-world industrial processes such as mixing, blending, batching, and liquid transfer, where precise coordination of multiple tank level is essential. Learners gain practical experience in configuring and operating a multi tank control systems to regulate process parameters efficiently. **R.2) Key Features and Learning Objectives** **Multi-tank process simulation** for batch processing, mixing, and liquid transfer. **Sequential control** for stepwise tank filling, mixing, and transfer operations with interlocks and safety logic. **Ratio control** for maintaining specific proportions of multiple input streams. Integration of **PLC-based or relay-based automation** for real-world process control. **Process monitoring and troubleshooting** for flow, level, pressure, and mixing ratio deviations. Suitable for **academic and industrial training programs** in fluid power and automation. Emphasizes **industrial safety practices** for high-pressure systems. **R.3) Technical Specifications & Scope of supply:** **Tanks** – 03 Nos., Capacity: 20 liters each, **Piping with Valves (1 Set)** –CPVC Piping with **ball valves (As per Requirement).** **Centrifugal Pumps** – 02 Nos., ½ H.P., Supply: 1φ 110 V / 230 V AC 50/60 Hz. **Control Valves** – 03 Nos., Two-way Globe Type, Size: ½″ / ¾″, Actuation: Pneumatic , Operating Pressure: 1.4 Kg/cm², Positioner Input: 4–20 mA (where applicable). **Level Sensors** – 03 Nos., Range: 0–1 ft. **Flow Measurement** – Rotameters: 02 Nos., Range: 100–1000 LPH, **Pressure Gauges** – 04 Nos., Dial Size: 50/60 mm, Glycerin Filled, Range: 0–4 Kg/cm². **Controllers** – PLC-based / Relay-based system for implementing sequential and ratio control logic. **Current Source (4–20 mA Calibrator)** – 01 No., Input Supply: 110 V / 230 V AC 50/60 Hz, Output: 4–20 mA. **A.F.R. / F.R.L. Unit** – 01 No., 0–10 Kg/cm² with pressure gauge. **Air Compressor** – 01 No., Tank capacity: 20 Liters, Discharge: 2 CFM, Motor: 1 H.P., 110 V / 230 V AC 50/60 Hz operated, working pressure: 5–6 Kg/cm². **R.4) Mechanical Construction & Dimensions** **Type:** Floor-mounted trainer kit with **four heavy-duty caster wheels** (with locking/brake mechanism) **Overall System Dimensions (Approx.):6 ft (Length) × 2.5 ft (Width) × 5.5 ft (Height)** **Construction:** Rigid industrial structure suitable for continuous laboratory use **Weight:Approximately 95 kg**	
S	**Advanced Data Acquisition System**	**1 Set**
	S.1) Objective: The Advanced PLC, HMI, SCADA compatible to LabVIEW plug-in Dashboard is required to provide comprehensive hands-on training Data Acquisition for Process Control. This system equips learners with practical skills in programming PLCs, designing HMI interfaces, integrating SCADA systems, and performing real-time data acquisition and analysis using software. It prepares students for careers in automation, instrumentation, and industrial process optimization. **S.2) Key Features and Learning Objectives:**	

	PLC & HMI Programming – Training on PLC programming, ladder logic, and creating interactive HMI dashboards. **SCADA System Integration** – Configuring and implementing SCADA for real-time monitoring, alarm management, and historical data logging. **Data Acquisition (DAQ)** – Using DAQ modules for signal acquisition, processing, and system integration. **S.3) Technical Specifications & Scope of supply:** **PLC System** – Modular PLC with CPU 14DI/10DO, 2AI/1AO, 24V DC supply, , Ethernet, communication, Make: Allen Bradley/Siemens/Equivalent – **1 No.** **HMI** – 7" TFT touchscreen, 800×480 resolution, Ethernet/USB/RS-485 ports, Make: Wecon/Equivalent – **1 No.** **SCADA Software** – Runtime & development license for real-time process monitoring, alarm handling, and historical data storage – **1 Set** **DAQ Module** – 8/16-channel analog input (0–10V/4–20mA), 4-channel digital I/O, USB/Ethernet connectivity – **1 No.** **Industrial Sensors** – Pressure, temperature, level, and proximity sensors for process simulation – **1 Set** **Stepper Motor with Drive** – 2-phase, 1–4.2A current rating, pulse/direction interface – **1 No.** **Relay Modules** – 2-channel & 4-channel relay modules for load switching – **1 Set** **Switchgear Components** – MCBs, selector switches, emergency stops, pushbuttons, pilot lamps – **1 Set** **Terminal Blocks** – Grey terminal blocks with wiring ducts for organized panel layout – **1 Set** **Industrial Panel** – MS powder-coated training panel with front-mounted PLC, HMI, and wiring terminals – **1 No.** **PC for Development** – i5 processor, 16GB RAM, 500GB SSD, 18.5" monitor, and preloadedSCADA,PLCsoftware – **1 No.** **Power Supply** – 230V AC input, 24V DC output, 10A – **1 No.** **Cables & Accessories** – Prefabricated Ethernet, RS-485 cables, power wiring, ferrules, and labels – **1 Lot** **Training Manuals & Exercises** – Detailed guides for PLC programming, SCADA configuration, DAQ integration projects – **1 Set** **Overall Frame Dimensions (Approx.):** 1400 mm (H) × 900 mm (W) × 650 mm (D) **Control Panel Enclosure Dimensions (Approx.):** 1200 mm (H) × 800 mm (W) × 300 mm (D) Panel Material: MS sheet, powder-coated Panel Thickness: Minimum 2 mm Mounting Arrangement: Front-mounted PLC, HMI, DAQ module, relays, switchgear Internal DIN rails and wiring ducts Ventilation: Natural ventilation or fan provision	
T	**Communication Protocol Trainer**	**1 Set**
	T.1) Objective The Communication Protocol Trainer is designed to provide comprehensive hands-on training in **industrial communication protocols, networking technologies, and IIoT connectivity** used in modern automation and control systems. The trainer enables learners to configure, monitor, diagnose, and troubleshoot communication between PLCs, drives, HMIs, analyzers, supervisory systems, and cloud platforms, with practical exposure to **Industry 4.0 architectures**.	

	T.2) Supported Communication Protocols The trainer shall provide hands-on training for the following industrial communication protocols: **PROFIBUS-DP (Master / Slave)** **PROFINET IO** **Modbus RTU (RS-485)** **Modbus TCP/IP** **EtherCAT** **RS-232 / RS-485 Serial Communication** **Ethernet TCP/IP** **OPC UA** **MQTT (IIoT / Cloud Communication)** **T.3) Technical Specifications & Scope of Supply** **1. PLC – PROFIBUS / PROFINET Slave PLC (PLC-1)** Type: Modular PLC Digital Inputs: **14 DI, 24 V DC** Digital Outputs: **10 DO, 24 V DC** Analog Inputs: **2 AI** Analog Outputs: **1 AO** Power Supply: **24 V DC** Communication Interfaces: **PROFIBUS-DP (Slave)** **PROFINET IO Device** Ethernet for programming and diagnostics Mounting: DIN-rail Make: **Siemens / Equivalent** Quantity: **1 No.** **2. PLC – PROFIBUS / PROFINET Master PLC (PLC-2)** Type: Modular PLC Digital Inputs: **14 DI, 24 V DC** Digital Outputs: **10 DO, 24 V DC** Analog Inputs: **2 AI** Analog Outputs: **1 AO** Power Supply: **24 V DC** Communication Interfaces: **PROFIBUS-DP (Master)** **PROFINET IO Controller** Ethernet supporting **Modbus TCP/IP** Application: Network master for PLC-to-PLC and PLC-to-device communication Make: **Siemens / Equivalent** Quantity: **1 No.** **3. IIoT-Based HMI / Gateway for OPC UA & MQTT** Type: **Industrial IIoT-enabled HMI / Edge Gateway** Communication Protocols Supported: **OPC UA (Client / Server)** **MQTT (Publish / Subscribe)** Communication Interfaces: **Ethernet TCP/IP** **RS-232 Serial Port** Functions Supported: Real-time data acquisition Secure data exchange with SCADA / DCS	

	Cloud connectivity for monitoring and analytics Tag-based data mapping and remote access Application: Industry 4.0 and IIoT training Make & Model: **Wecon/Equivalent** Quantity: **1 No.** **4. Variable Speed Drive (VFD)** Rating: **0.5 HP**, Single Phase Communication: **Modbus RTU over RS-485** Control Modes: Speed and direction control Analog & Digital I/O supported Quantity: **1 No.** **5. Servo Drive & Motor** Motor Rating: **200 W** Communication Protocol: **EtherCAT** Encoder feedback supported Application: Motion control communication training Quantity: **1 No.** **6. Stepper Motor with Drive** Control Interface: **Pulse & Direction (Train input)** Application: Basic motion control and PLC interfacing Make: Reputed manufacturer Quantity: **1 No.** **7. Human Machine Interface (HMI)** Display Size: **7 inch TFT LCD** Communication: Ethernet TCP/IP Modbus TCP / RTU Mounting: Panel mount Make: **WECON / Equivalent** Quantity: **1 No.** **8. Serial Communication Interface** RS-232 / RS-485 communication module or converter Application: Modbus RTU communication Serial protocol diagnostics Quantity: **1 Set** **9. Logic Analyzer / Digital Oscilloscope** Type: Mixed-signal digital oscilloscope Analog Channels: **4** Digital Channels: **16 (with logic probe)** Analog Bandwidth: **350 MHz** Sampling Rate: **Up to 4 GSa/s** Vertical Resolution: **12-bit** Memory Depth: **100 Mpts (expandable)** Display: **7″ Touch Display (1024 × 600)** Serial Protocol Decoding: **I²C, SPI, UART/RS-232, CAN, LIN** Quantity: **1 No.**	

	T.4)Communication: The Communication Protocol Trainer provides complete and technically validated hands-on training **on all major industrial communication protocols including** PROFIBUS, PROFINET, Modbus, EtherCAT, OPC UA, and MQTT-based IIoT communication**, ensuring full compliance with modern industrial automation and Industry 4.0 training requirements.** **T.5) Modular Training Workstation –** **Type:** Floor-mounted modular workstation for automation and communication trainer kits **Overall Dimensions (Approx.):1500 (L) × 750 (D) × 1400 (H) mm** **Table Top:1500 × 450 × 25 mm**, industrial-grade particle board with laminated finish **Frame:** CR-grade sheet metal and tubular structure, powder-coated **Mobility:** Four heavy-duty caster wheels with brakes **Panel Area:** 4 mm thick, insulated, non-breakable mounting panel **Aluminium Structure:** Vertical pillars and horizontal modular profiles for panel mounting **Power Console:** Integrated power supply box with cooling fans and protection **Storage:** Pedestal cabinet with three drawers **Accessories:** Provision for PC, LCD monitor, and keyboard tray	
U	**Distributed Control System (DCS) Trainer**	**1 Set**
	U.1) Objective The Distributed Control System (DCS) shall be designed to provide comprehensive **hands-on training and applied learning** in industrial process automation, monitoring, and control. The system shall enable learners to understand and practically implement complete DCS architecture, including **field layer, control layer, supervisory layer, and engineering layer**. It shall support configuration, diagnostics, commissioning, loop tuning, alarm management, SCADA development, and real-time process supervision. The DCS shall be suitable for **educational institutions, training laboratories, utilities, and basic process industries**, providing exposure to modern industrial control systems and real-world process integration. **U.2) Key Features** Complete **DCS architecture** comprising controller, distributed I/O, communication interfaces, power supply, engineering station, and SCADA/operator station Support for **digital and analog I/O**, including **isolated HART-enabled analog inputs and outputs** Compact, industrial-grade controller suitable for training and light industrial applications Capability to implement **PID, cascade, ratio, feed-forward, feedback, and split-range control strategies** Engineering software for **configuration, programming, diagnostics, simulation, and commissioning** SCADA software supporting **graphics, alarms, trends, historical data logging, and operator interaction** Ethernet-based industrial communication using **standard TCP/IP** Hardware suitable for continuous operation in industrial and academic environments Designed for integration with **real process loops** such as flow, level, pressure, and temperature System should be suitable for expansion and integration with higher-level systems such as **plant DCS or SCADA networks** **U.3) System Architecture Overview** The DCS shall be based on a **modular, distributed architecture** consisting of: Central processing unit (controller) Local and/or remote I/O modules Ethernet communication interface Engineering workstation Operator/SCADA workstation	

	Industrial power supply Network communication infrastructure **U.4) Technical Specifications** **1. Controller (CPU)** Type: Compact industrial DCS/PLC-based controller suitable for DCS training Memory: **Minimum 2 MB user memory** I/O Capacity: Supports **minimum 16 local I/O modules** Communication: Supports **up to 40 communication nodes** Ethernet-based communication Motion Capability: Supports **up to 8 axes** (for training and simulation purposes) Environmental Protection: **Conformal-coated hardware** for improved reliability Make: **Allen-Bradley / Siemens / Honeywell/ Emerson or equivalent globally reputed brand** **2. Digital Input Module** Channels: **16 digital inputs** Input Voltage: **24 V DC** Input Type: Sink or equivalent industrial standard Isolation: As per industrial norms Make: **Allen-Bradley / Siemens / Honeywell/Emerson or equivalent globally reputed brand** **3. Digital Output Module** Channels: **16 digital outputs** Output Voltage: **24 V DC** Output Type: Source or equivalent industrial standard Protection: Short-circuit and overload protection Make: **Allen-Bradley / Siemens / Honeywell/Emerson or equivalent globally reputed brand** **4. Analog Input Modules** **a) Analog Input Module** Quantity: **2 Nos.** Channels: **8 analog inputs per module** Signal Types: 4–20 mA / 0–10 V (configurable) Power: Loop powered or external as applicable Resolution: Minimum 16-bit Make: **Allen-Bradley / Siemens / Honeywell/ Emerson or equivalent globally reputed brand** **b) Isolated Analog Input Module with HART** Quantity: **1 No.** Channels: **8 isolated analog inputs** Signal Type: **4–20 mA with HART communication** Channel-to-channel isolation Make: **Allen-Bradley / Siemens / Honeywell/ Emerson or equivalent globally reputed brand** **5. Analog Output Module with HART** Quantity: **1 No.** Channels: **8 isolated analog outputs**	

	Signal Type: **4–20 mA with HART support** Channel-to-channel isolation Resolution: Minimum 16-bit Make: **Allen-Bradley / Siemens / Honeywell/ Emerson or equivalent globally reputed brand** **6. Communication Interface** Ethernet communication adapter/module Supports connection of **minimum 8 I/O modules** Interface: RJ-45 Ethernet port Protocol: Standard Ethernet TCP/IP Make: **Allen-Bradley / Siemens / Honeywell/ Emerson or equivalent globally reputed brand** **7. Terminal Bases & Mounting Hardware** Terminal bases suitable for all I/O modules Mix of **standard and isolated screw-type terminal bases** Modular mounting bases for DIN-rail or panel mounting Designed for easy wiring and maintenance Make: **Allen-Bradley / Siemens / Honeywell/ Equivalent industrial grade** **8. Industrial Ethernet Switch** Type: Unmanaged industrial Ethernet switch Ports: **Minimum 8 ports (Copper Ethernet)** Speed: **10/100 Mbps** Suitable for industrial environment Make: **Allen-Bradley / Siemens / Honeywell / Equivalent industrial grade** **9. SCADA / Operator Interface Software** Functionality: Process visualization (HMI graphics) Alarm management Trending (real-time and historical) Data logging and reporting Licensing: **Perpetual license** Supports multiple screens and tags suitable for training Vendor technical support included Make: **Allen-Bradley / Siemens / Honeywell or equivalent globally reputed brand** **10. Engineering & Configuration Software** Software for: Controller programming I/O configuration Diagnostics and troubleshooting Commissioning and testing Licensing: **Perpetual license** Includes documentation and learning resources Make: **Allen-Bradley / Siemens / Honeywell or equivalent globally reputed brand** **11. Power Supply** Output: **24–28 V DC** Power Rating: **Minimum 120 W** Input Voltage: **85–132 V AC** **170–264 V AC**	

	Industrial grade, DIN-rail mountable Protection: Over-voltage, over-current, short-circuit Make: **Allen-Bradley / Siemens / Honeywell// Equivalent industrial grade** **Industrial Grade Computers & Monitors –** **Computers:** 2 Nos., industrial-grade PCs with minimum **Intel i7 / equivalent CPU, 16 GB RAM, 1TB SSD, Gigabit Ethernet**, suitable for DCS/SCADA engineering and operator stations **Monitors:** 4 Nos., **42-inch LED**, **Full HD (1920 × 1080)** resolution, HDMI/DP/VGA connectivity, suitable for continuous operation **U.5) Intended Applications** DCS and process automation training Control loop design and tuning SCADA and alarm management training Integration with real or simulated process skids Academic laboratories and industrial skill development centers **U.6. DCS Trainer Workstation –** The Distributed Control System (DCS) Trainer shall be supplied with a floor-mounted industrial workstation of approximate dimensions 1800 mm (L) × 800 mm (D) × 1600 mm (H), constructed using CR-grade sheet metal and tubular structure with powder-coated finish for durability. The workstation shall include a laminated industrial-grade worktop (minimum 25 mm thickness) and a minimum 4 mm thick insulated, non-breakable mounting panel suitable for installation of DCS controller, I/O modules, power supplies, and networking equipment. An integrated power distribution console with MCB protection, sockets, and cooling provisions shall be provided. The workstation shall include provisions for two industrial-grade computers and four 24-inch monitors to support engineering and operator stations, along with proper cable routing and earthing arrangements. The workstation shall be suitable for continuous operation in an industrial or academic DCS training environment.	
V	**Milk Processing Prototype mini plant**	**1 Set**
	Milk Processing Prototype plant modular stations – Technical Specification & System Overview **V.1. Overview of the System** The Milk Processing Prototype shall be a compact, fully functional, food-grade milk-processing plant designed to simulate end-to-end dairy processing operations under controlled academic and training conditions. The system shall function as the core experiential learning platform of the Competency Development Centre, enabling users to observe, operate, and analyze real industrial process behaviors in a safe and controlled environment. The prototype shall be designed to represent a working mini-dairy plant, replicating actual industrial workflows, process sequencing, and hygiene standards applicable to the dairy and food-processing industry. **V.2. Operational Capability** The Milk Processing Prototype shall support processing using **fresh milk as the primary raw material**, enabling learners to study process variability, operational sequencing, and automation responses associated with real dairy operations. The system architecture shall reflect modern dairy-industry practices, allowing flexibility in operation and future scalability. All major subsystems shall be designed with **hook-up capability to an external Distributed Control System (DCS)** for supervisory monitoring, data acquisition, and advanced control integration.	

V.3. Key Technical Highlights

Batch Capacity: 50 to 100 liters per batch
Process Type: Batch-based milk processing
Construction: Food-grade materials compliant with dairy industry standards
Automation Readiness: Suitable for integration with PLC/HMI and/or external DCS
DCS Interface: Provision for signal-level and communication-level hook-up with external DCS systems

V.4. Raw Material Handling

The system shall include facilities for handling fresh milk, including:
Direct intake of milk into the system
Filtration to remove physical impurities
Temperature stabilization prior to processing
These provisions shall ensure consistent feed conditions for downstream processing stages.

V.5. Process Stages and Learning Modules

The Milk Processing Prototype shall be structured into **five (5) to six (6) or more interconnected process stations**, each representing a distinct industrial operation.
Each station shall be designed to allow observation, operation, and analysis of process parameters, instrumentation behavior, and control logic.

5.1 Station A – Raw Material Handling

This station shall:
Receive fresh milk
Perform filtration (where applicable)
Heat and stabilize milk to the required initial temperature
Ensure correct batch quantity prior to transfer
The station shall prepare milk for downstream processing under controlled conditions.

5.2 Station B – Heating & Pre-Processing

This station shall:
Heat and mix milk to achieve uniform composition
Control temperature precisely to meet pasteurization requirements
Maintain defined holding time
Ensure proper thermal treatment before transfer
This station shall demonstrate thermal control and pre-processing logic used in dairy plants.

5.3 Station C – Cooling & Conditioning

This station shall:
Cool processed milk to product-specific temperatures
Stabilize milk characteristics post-heating
Prepare milk for subsequent product formation
Controlled cooling logic and instrumentation behaviour shall be observable at this stage.

5.4 Station D – Product Formation

This station shall:
Convert conditioned milk into products such as flavoured milk, curd, or paneer
Allow controlled addition of ingredients
Regulate temperature and pH levels
Execute transformation processes required for final product creation
This stage shall demonstrate core dairy product-formation principles.

5.5 Station E – Packaging & Post-Processing

This station shall:
Fill, press, or seal finished products into suitable containers
Ensure correct quantity and shaping (where applicable)

	Prepare products for inspection and dispatch Packaging operations shall reflect small-scale industrial practices. **5.6 Station F – Inspection & Cleaning-in-Place (CIP)** This station shall: Perform weight and basic quality checks on finished products Execute automated Cleaning-in-Place (CIP) cycles Ensure hygienic conditions for subsequent production runs CIP functionality shall be integral to maintaining food-grade compliance. **V.6. Control, Automation & DCS Hook-Up Provision** The system shall be designed with provision for PLC/HMI-based control where required. All instruments, actuators, and control elements shall be **DCS-hook-up ready**, allowing seamless integration with an external Distributed Control System. Signal interfaces (analog/digital) and communication interfaces shall be clearly accessible for external control and monitoring. The setup shall support operation either locally or through an external supervisory control platform. **V.7. Learning Outcomes & Academic Value** The Milk Processing Prototype shall enable learners to gain exposure to: Complete milk-processing workflow: *Intake → Heating → Cooling → Product Formation → Packaging → CIP* Real-time control logic, sequencing, and interlocks Measurement and manipulation of key process variables Impact of automation and control strategies on product quality and safety The system shall bridge the gap between theoretical instruction and real-world industrial practice. **V.8. Beneficiary Impact & Conclusion** **8.1 Impact on Students** Hands-on exposure to real dairy-processing equipment and instrumentation Practical understanding of industrial control strategies and safety interlocks Confidence in operating an end-to-end automated milk-processing system Improved employability in dairy, beverage, and food-automation sectors **8.2 Impact on Institution** Establishment of an industry-relevant, high-value training laboratory Alignment of academic curriculum with real industrial workflows Enhanced industry collaboration and placement outcomes	
W	**SMART Edu-KIOSK**	**1 Set**
	A SMART Edu-KIOSK with Pre-loaded Audio-Video Digital Information about the Sensors and other Laboratory Equipment shall be designed and supplied. The Multimedia Content should contain Principle of Operation, Types, Variants, Specifications and Application Notes. The Content shall be selectable through on-screen Touch Buttons. The KIOSK shall also have option to cinnect to the LMS for self-Teaching and Assessment through back-end connectivity to the LMS.	
X	**Curriculum Content & Experiments**	**1 Set**
	• Curriculum and Simulation SW Packages (wherever Applicable) related to the Equipment, Systems, Technologies which is concurrent, Practical Oriented and conform to the Local and Global Skilling Standards and Purposes to be supplied both pre-loaded and in Media like HDD/Pen Drive.	

Y	**Desktop Systems and Other Equipment**		**1 Set**
1	**Desktop Computers – 15 Nos.**		**15 Nos.**

SL No.	Parameter	Specifications
1	Processor	intel Core i7 13th Generation or higher
2	RAM	Minimum 16GB DDR4 or latest, with support of suitable slots to expand memory upto 64GB (Min. 2 DIMM) or Higher
3	Memory Size	Minimum 1TB SSD (Nvme)
4	Operating System	Factory pre-loaded Windows 11 Professional
5	Additional OS Supported	Linux
6	Speed (Min Base Frequency)	1.6 GHz or Higher
7	Turbo Frequency	4.9 GHz or Higher
8	Chipset	Compatible chipsets as per processors make
9	Cores	Min. 8
10	Threads	Min. 16
11	Cache	16 MB or Higher
12	DVD	Optional
13	Display Size	22” or more TCO 08 Certified
14	Display Technology	Active Matrix TFT LCD (Backlit LED)
15	Resolution	1600X900 or Higher
16	Graphics Memory	Minimum 2GB, with suitable capacity for uploading the offered software’s
17	Keyboard	Standard USB OEM Make
18	Mouse	Optical/Laser USB OEM Make
19	Cabinet	MT/SFF
20	SMPS	180-250W
21	Speaker	1 Internal Speaker
22	Ports	Minimum 6 USB, VGA/HDMI/DP, LAN
23	**Certifications**	
23.1	Safety Standards	Safety of Electronics Products against Electrical Hazards IS 13252 (Part1):2010/IEC 60950 Part1:2005/UL Certification BIS, BEE, EPR, RoHS or any other relevant Indian Certificates.
23.2	Certification for Electro Magnetic Interference/ Radiation under control	FCC/Equivalent certification from NABL approved Lab
23.3	Restriction of Hazardous Substances in manufacturing	Indian WEE & India RoHS/International RoHS
23.4	Energy Efficiency Standards	Energy Star 7.0 of higher/ equivalent BEE Star rating
23.5	Environmental Protection Standards	EPEAT /Equivalent Indian Standard
23.6	ISO Standard	ISO 9001
24	Warranty	Minimum 5 Years OEM onsite comprehensive warranty.

2	**Online UPS (20 KVA with minimum 60 minutes backup)**		**1 No.**

Item Descriptions	
Rating in KVA(KVA)	20KVA; Must be conforming to IEC 62040-3;

		Technology	IGBT-PWM with inbuilt Isolation transformer, external not allowed	
		Input Power	Three phase 160V- 260V sinewave,50Hz	
		Output Power	Three Phase 230V +/-1% with alternative user set table setting of 230V+/-1% 50 Hz	
		Backup time (Minutes)	60	
		Minimum VAH(VAH)	12000 or Higher	
		Warranty for UPS (Years)	5 Years	
		Movable trolley for Batteries	Without trolley but with rack	
		Warranty for battery	5 Years	
		Cabling 5meters for input and output	Without	
		Paralleling kit for synchronizing	Without	
		Installation and Commissioning	Yes	
		Minimum thickness of M.S. Sheet Enclosure duly painted (mm)	1:2	
		Type of Battery	SMF-VRLA conforming to JISC:8702 (Pt. I, II & III)	
		Maximum over shoot and Under shoot of output rated voltage	4	
		Voltage Regulation from no load to full load (%)	</=3%	
		20% Overload limit for minimum 10 minutes	Yes	
		Overall Efficiency (%)	>/=90%	
		Total Harmonic Distortion (THD)(%)	Maximum 3%	
		50% Overload limit for minimum 1minutes	Yes	
		Protection for under voltage at battery terminal at 10.5V per 12 V battery	Yes	
		Protection of Overvoltage, Short Circuit & over load at UPS output terminal	Yes	
3	**Interactive Touch Panel Board**			**1 No.**

S.N.	**Feature**	**Specification**
1	Interactive Panel Size	85 Inches or higher
2	Aspect Ratio	16:09
3	Resolution	3840x2160 (4K-UHD resolution)
4	Contrast Ratio	4,000:1 or higher
5	Brightness	350cd/m2 or higher
6	Response Time	6 ms or better
7	Viewing Angles	178°:178° (Horizontal/Vertical)
8	Backlight Life	50,000 Hours or more
9	Glass thickness	3mm or above
10	Special features	non-glare panel, Display should have feature to access a remote PC using RDP, Office 365 Data or Virtual Desktop (External PC in same intranet can be access from display).
11	Touch Technology	Infrared Touch
12	Touch Point	10 points or higher

		13	Input/ Output Interface or more	2xHDMI Input (3840x2160); 1xHDMI Output (3840x2160); 1xDisplay Port Input (3840x2160); 1xAudio Out; 1xRS232 Serial interface; 1xRJ45 LAN Port; 2xUSB 2.0 Type A; 1xUSB 3.0 Type A; 2xUSB 2.0 Type B (for touch)	
		14	Connectivity	WIFI, RJ45 wired and DC Port for OPS/PC	
		15	Speakers	2*10W built-in Speaker	
		16	Installation Type	Wall Mounting	
		17	Inbuilt OS	Windows/Android/Tizen ; 3 GB or above RAM DDR4; 16 GB or above ROM	
		19	Certifications	BIS, CE, UL, FCC,	
		20	Warranty	5 Yrs Support	
4	**Colour Laser Printer**				**1 No.**

7. Deliverable and Payment Schedule:

The selected company will have the following deliverables: -

SL No	Deliverable	Time Line	Amount Payable
1	**Milestone 1**: i) Pre-Delivery inspection of sample equipment. ii) Delivery of the material, equipment, PPE and Tools &Tackles in good condition at the CoEs. iii) Visual inspection of equipment and certify by the Principal of the CoEs.	Within 4 months of signing the Contract Agreement (MoA)	40% of the 'Total Order Value (Base Price)' with 18% GST on the Total Base Order Value, within 30 days of receipt of the invoices.
2	**Milestone 2**: i) Complete setup of CoEs including Civil and Electrical works (interior design, electrical cabling and infrastructure work etc.) ii) Installation & Commissioning to be completed of all equipment. iii) Inspection and testing of equipment forthe Centre of Excellences and stock entry. iv) Submission of safety certificates (if any) from competent authorities, supply of Machine Consumables, safety equipment etc. Complete setup of the CoEs.	Within 6 month of signing the Contract Agreement (MoA)	40% of the 'Total Order Value' within 30 days of complete setup of the CoEs.
3	**Milestone 3:** **i)** Completion of the Handholding period (three years) **ii)** Placement opportunities given to the 50% trainees who successfully trained and certified.	**Completion of hand-holding training & placement** : **1st Year**: Within 18 months of signing the Contract Agreement (MoA). **2nd Year**: Within 30 months of signing the Contract Agreement (MoA). **3rd Year**: Within 42 months of signing the Contract Agreement (MoA).	20% of the 'Total Order Value' will be released in equal 03 (three) installments. 1/3rd of 20% of the 'Total Order Value' after completion of every Year's hand-holding training, certification and placement opportunities provided.
4	**Milestone 4**: Comprehensive Annual Maintenance Cost (CAMC) (if any) for 3 (three) years immediately after the date of expiry of comprehensive warranty for 60 months for the equipment/machines supplied at CoE.	Payment shall be released annually on completion of CAMC subject to satisfactory performance and due recommendation from concerned principal/Head of institute.	100% of the annual awarded value within 30 days of submission of Tax invoice along with certification from the Principal of consignee institute.

Other Conditions:

a) No Advanced Payment will be given to the selected bidder.

b) Payment for 'Milestone 1' & 'Milestone 2' will be done after inspection from nominated technical experts or 3rd Party Agency/consultants/advisors appointed by DTE&T and satisfactory reports from them.

8. SECTION IV: Technical Bid Submission Forms (Cover-1)

TECH -1

COVERING LETTER

(ON BIDDERS LETTER HEAD)

[Location, Date]

To

The Director
Directorate of Technical Educational and Training, Odisha
Killa Maidan, Buxi Bazar, Cuttack– 753001

Sub: "RFP for establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha". [TECHNICAL BID]

Dear Sir,

I/We ……. (Name of the Bidder) hereby submit our Proposal in response to notice inviting RFP date ……. and RFP document no…….and confirm that:

1. With reference to your RFP document dated ……., I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Bid. The Bid is unconditional and unqualified.

2. I/We acknowledge that the DTE&T will be relying on the information provided in the Bid and the documents accompanying the Bid for selection of the Bidder for the aforesaid project(s), and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Bid are true copies of their respective originals.

3. This statement is made for the express purpose of qualifying as a Bidder for the aforesaid Project.

4. I/ We shall make available to the DTE&T any additional information it may find necessary or require to supplement or authenticate the Bid.

5. I/ We acknowledge the right of the DTE&T to reject our Bid without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.

6. I/ We certify that in the last three years, we have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.

7. I/ We declare that:

   - I/ We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the DTE&T;
   - I/We do not have any Conflict of Interest in accordance with Clause 12 of the RFP document;
   - I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP document, in respect of any tender or request for proposal issued by or any

agreement entered into with the DTE&T or any other public sector enterprise or any government, Central or State; and

- I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 14 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/We understand that the DTE&T may cancel the Bidding Process at any time and that the DTE&T is neither bound to accept any Bid that you may receive nor to invite the Bidders to Bid for the Project, without incurring any liability to the Bidders.
9. I/ We agree and undertake to abide by all the terms and conditions of the RFP document.
10. I/ We offer a Bid Security/EMD to the DTE&T in accordance with the RFP document.
11. I/ We agree and understand that the Bid is subject to the provisions of the Bidding Documents. In no case, I/we shall have any claim or right of whatsoever nature if the Project is not awarded to me/us or our Bid is not opened or rejected.
12. I/ We certified that the period of validity of Proposal is till the end of the Contract Agreement period and I/We are quoting for all the services mentioned in the Scope of Work of the RFP.
13. DTE&T, Odisha, may contact the following person for further information regarding this Proposal:

Name and full address of office, Contact No., Email ID, Company Name

In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document

Yours sincerely,

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH -2

Bidder's Organisation (General Details)

SL No	Description	Full Details
1	**Name of the Bidder**	
2	**Address for communication:** Tel: E-mail ID:	
3	**Name of the authorized person signing & submitting the bid on behalf of the Bidder:** Mobile No.: Email id:	
4	**Registration / Incorporation Details** Registration No: Date & Year. :	
5	**Local office in Bhubaneswar** **If Yes, please furnish contact details**	Yes / No
6	**Bid Processing Fee Details** Amount:	
7	**EMD Details** Amount:	
8	PAN Number	
9	Goods and Services Tax Identification Number (GSTIN)	
10	Willing to carry out the assignment as per the scope of work of RFP	**YES**
11	Accept all the terms and conditions as specified in the RFP	**YES**

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH -3

Bidder Organisation (Financial Details)

Financial Information in INR			
Details	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**
Annual Turnover in INR			

Supporting Documents:

Audited certified financial statements for the last three (Submission of copies of Income & Expenditure Statement and Balance Sheet for the respective financial years is mandatory along with this form). Provisional Audit report for any of the FYs is not acceptable.

Filled in information in this format must have to be jointly certified and sealed by the CA and the authorized representative of the bidder and to be furnished in original along with the technical Bid failing which the Bid will be out rightly rejected.

_____

Signature and Seal of the Chartered Accountant with Date in original.

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH - 4

FORMAT FOR POWER OF ATTORNEY

(Notarized copy on Rs. 100 Non-Judicial Stamp Paper)

(Required only if the Signatory is not directly authorized by the Company Board/Governing Body, or Partners. Otherwise, the Board Resolution/Partners Resolution would suffice)

Known all men by these presents, we……. (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. (name), …… son/daughter/wife of …… and presently residing at ……., who is presently employed with us and holding the position of …… , as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our tender against the Bid document no. [•] dated [•] published by DTET for the "Procurement of Goods – [•]", including but not limited to signing and submission of all applications, bids and other documents and writings,

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE……., THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS …… DAY OF ……. 20[•].

For
Witnesses
……..
(Signature, name, designation and address)

1.

2.

Accepted

(Signature)
(Name, Title and Address of the Attorney)

Encl: Board resolution for Authorized signatory

TECH - 5

(BIDDER'S PAST EXPERIENCE DETAILS)

(List of orders/assignments only of similar nature)

Sl. No.	Name of Buyer/Client, Address with Telephone No, e-mail, Contact Person, Mobile No.	Name of Project	Nature of Project/Goods/ Services and Brief of Project	Project Start Date and End Date	Project Cost/ Contract Value (In Rs.)	Status (Complete/ In Progress/ Delay)	No of students trained and placed, if any
A	**B**	**C**	**D**	**E**	**F**	**G**	
1							
2							
3							
4							
5							

Note: Information not conforming to the above format will be treated as non-responsive. The bidder must enlist their relevant experience for technical marking purpose. Copies of the Work order / Contract Document / Completion Certificate from the previous Clients need to be furnished along with the above information.

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH - 6

Affidavit for not being blacklisted

<< An affidavit on a non-judicial stamp paper of INR 100/- by Company Secretary/ Authorized Representative and Signatory of the Applicant with his/her dated Sign and duly notarized >>

AFFIDAVIT
(to be executed on INR 100 non-judicial stamp paper and to be duly notarized)

Date: _____

Sub: Tender No. _____

In response to the Tender Document above stated, I/We hereby declare and solemnly swear that our Company/ firm _____ is not banned/blacklisted as on date by any competent court of Law, forum or any State Government or Central Government or their agencies or by any statutory entities or any PSUs.

AND, if at any stage the declaration/statement on oath is found to be false in part or otherwise, then without prejudice to any other action that may be taken, I/We, hereby agree to be treated as a disqualified Bidder for the ongoing Contract.

In addition to the disqualification our concern/entity may be banned/blacklisted.

AND, that I/We, shall have no right whatsoever, to claim for consideration of my/our bid at any stage and the money deposited in the form of EMD shall be liable for forfeiture in full, and the tender, if any to the extent accepted, may be cancelled.

Signature of the Deponent

(Authorized signatory of the Bidder with Seal)

Date:

Place:

TECH –7

To be executed on non-judicial stamp paper of requisite value & to be notarized.

Consortium Agreement

This Consortium Agreement is executed on this_____day of _____at between; M/s_____, a company incorporated under (indicate the Company's Act.) and having its registered/principal office at_____ (herein after referred to as "Leader of the Consortium" which expression shall include its legal successors, executors and permitted assigns) on the first part,

and

M/s_____, a company incorporated under_____(indicate the Company's Act) and having its registered/principal office at_____

(herein after referred to as "First Consortium Partner" which expression shall include its successors, executors and permitted assigns) on the second part,

Each of the above entities shall individually be referred to as "Consortium partner" and collectively as "Consortium".

Whereas, Directorate of Technical Education and Training (DTE&T), Odisha, (under the administrative control of Skill Development & Technical Education Department, Government of Odisha) having its registered office at Killa Maidan, Buxi Bazaar, Cuttack-753001, Odisha, India (herein after referred to as the "Purchaser") has floated a tender no._____dtd._____ for_____.

As per the above mentioned tender conditions, Consortium formed among individual entities are allowed to qualify and participate as a bidder as per the Qualification Requirements stipulated in the tender. Towards this purpose, the consortium partners mentioned above hereby joined together to form a consortium. This consortium agreement is entered into by the above mentioned consortium partners for the purpose of submitting the bid against the above mentioned tender to the Purchaser jointly as a bidder to meet the qualifying requirements of the tender, towards execution of contract in case of award of the contract by the Purchaser and furnish performance towards equipment/system as per the conditions of the contract.

NOW, THEREFORE, the above mentioned entities hereby agrees as follows:

1. We, the consortium partners learned and understood the terms and conditions of the tender no. for issued by the Purchaser meeting the qualifying requirement indicated therein.
2. The financial percentage participation by each consortium partners shall be as indicated below.
   a) M/s_____: _____%
   b) M/s_____: _____%
3. We, the consortium partners hereby agree that M/s. _____shall act as the Leader of the consortium who shall have authority to bind each of the consortium partner(s). The Leader of the consortium shall be responsible towards:
   (a) preparation and submission of bid on behalf of the consortium
   (b) to negotiate with the Purchaser (if selected by the Purchaser for negotiation)
   (c) acceptance of the contract on behalf of consortium,

(d) correspondence with the parties, co-ordination between the Purchaser, Consortium Partners and other agencies concerned,

(e) submission of the Performance Securities and other documents,

(f) to submit invoice and other documents and receive the payment,

(g) to ensure performance of the equipment/system as the case may be.

(h) to respond promptly in settlement of disputes arising during any stage from submission of bid till closure of contract

(i) to participate in the process of arbitration.

4. In case award of contract by the Purchaser, we to this the consortium partners Consortium Agreement do hereby agree that we shall furnish the contract performance guarantee in favor of the Purchaser from a Bank as per the said tender/contract conditions for a value stipulated in the Contract awarded and such guarantee shall be in the name of the Leader of the Consortium.
5. Each of the consortium partners shall be jointly and severally responsible for performance of the contract. Further, the consortium partners shall be jointly and severally responsible for discharging all the obligation of the contract.
6. Any correspondence exchanged with the leader of the consortium shall be binding on consortium partner(s).
7. The leader of the consortium shall ensure performance of the equipment/system on behalf of the Consortium.
8. The consortium partners shall bear the pre-tender expenses incurred by them.
9. It is agreed that Consortium Partner(s) of this agreement will not assign or transfer any of their rights or obligations under this agreement without the written consent of the Purchaser as well as the other consortium partner(s).
10. We, the consortium partners hereby undertake and confirm that none of the consortium partner is blacklisted / debarred for business by any of the Government Organisations /Public Sector Units.
11. In case of breach of the said contract by any of the partners of the Consortium, the other consortium partner(s) hereby agree to be fully responsible for the successful execution/performance of the Contract in accordance with the terms and conditions of the contract.
12. Further, if the Purchaser suffered any loss or damage on account of any breach of the Contract or any shortfall in the completed equipment/plant, meeting the guaranteed performance parameters as per the technical specifications/contract documents, the Leader of Consortium, Consortium Partners for the present contract shall undertake promptly to make good such loss or damage caused to the Purchaser, on the Purchaser's demand without any demur. The Purchaser shall have the right to proceed against anyone of the consortium partners and it shall neither be necessary or obligatory on the part of the Purchaser to proceed against the Leader of the Consortium to the present contract before proceeding against the first or the second consortium partner.
13. Each Consortium Partners hereby covenants that it will perform its obligations in full compliance with the conditions of the contract/purchase order (if and when issued by the Purchaser), Consortium Agreement as per the regulations and statutory laws of India. In case of conflict between Contract/Purchaser Order issued by the Purchaser and Consortium Agreement, Contract/Purchase Order shall take precedence over the Consortium Agreement.
14. The responsibilities for performing execution of the said contract by each consortium partner is as indicated in the Annexure-I. It is further agreed by the consortium partners that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the members under this agreement.

15. We, the consortium partners hereby agree that this consortium agreement remains unaffected due to any change in the Article of Association of any one or any number of consortium partners with immediate or retrospective effect.
16. This Consortium Agreement shall be governed, construed and interpreted in accordance with Laws of India. Courts of Mumbai shall have exclusive jurisdiction in all matters arising there under.
17. The consortium partners shall maintain confidentiality of the information pertaining to this agreement and the information related to execution of the contract.
18. It is further agreed that this Consortium Agreement shall be irrevocable and shall form an integral part of the Contract and shall continue to be enforceable till the Purchaser discharges the same. It shall be effective on the date first above mentioned for all purposes and intents.

1. Common Seal of M/s_____ has been affixed in my/our presence Pursuant to Board Resolution dated_____. Signature…….. Designation……..	For M/s_____ ……. (Signature of authorized representative) Name:…… Designation……
2. Common Seal of M/s_____ has been affixed in my/our presence Pursuant to Board Resolution dated_____. Signature…….. Designation……..	For M/s_____ ……. (Signature of authorized representative) Name:…… Designation……

WITNESSES:

1.

2.

ANNEXURE-I TO CONSORTIUM AGREEMENT

DIVISION OF WORK AMONG CONSORTIUM PARTNERS BASED ON THEIR RESPONSIBILITIES AND WORKING ARRANGEMENT

SL No	**Description of work to be carried out by Consortium (Indicative)**	**Division of Responsibilities**	
		Leader of Consortium	First Consortium Partner
1	Coordination of the Tender/Contract		
2	Design of the CoEs		
3	Manufacture & Supply of equipment 1. 2. 3. 4. 5. 6.		
4	Installation & Commissioning 1. 2. 3. 4. 5. 6.		
6	Comprehensive Maintenance during warranty period of 60 months 1. 2. 3. 4. 5. 6.		
5	Hand-Holding Training for 36 months		
6	Placement of certified trainees		

7	Any other additional responsibilities		

NOTE:

i) The above format of consortium agreement is prepared for two consortium partners. In case the number of consortium partner allowed as per the tender is more than two, the format has to be modified accordingly.

ii) Consortium shall include/modify activities to be carried out by them based on the scope of the tender.

TECH –8

Technical Compliance Sheet

(To be submitted on Bidder's Letterhead)

Sl. No.	Product Name (As mentioned in ToR)	Technical Specifications (As per ToR)	Compliance (Yes/No)	If No, Reasons of deviations	Remarks (Additional features, if any)

Note:

The Technical compliance sheet shall provide a detailed list of identified requirements and specifications as mentioned in the ToR (Section-III). The bidder should indicate against the requirement in the compliance column to indicate the extent to which their proposals comply with the requirements. Bidder should also fill the details of proposed hardware and provide the necessary information.

The offered product within the scope of this RFP may have some features not contained in the ToR. Bidder may provide these details separately. These will not be part of above evaluation criteria.

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH –9

Manufacturer's Authorization Form

(To be submitted on OEM Letterhead**)**

To,

The Director,
Technical Education and Training, Odisha, Cuttack
Killa Maidan, Buxi Bazar, Cuttack – 753001.

Dear Sir,

We M/s. _____ who are established and reputable manufacturers of

_____

do hereby authorize M/s._____ (Name and address of Agent / Dealer) to participate in the above tender.

We hereby extend our technical assistance to the bidder during installation and inspection of the product.

We hereby certify that, the equipment being sold would not be declared End of Support (EoS) or become obsolete in the next 5 years. Also, we certify that the products being sold would be covered under Warranty / Support and OEM support will be available for 05 years (as specified in the RFP/ NIT No.) from the date of installation, even in the case, the bidder becomes "Out of service".

We have studied the requirements of the product and confirm that we will adhere to the specifications of the tender and quality plan and extend all support during the inspection and provide documentary evidence at the time of inspection for the verification by the Client/Client's representative.

Date: _____

Yours faithfully,
(Name)

Signature and
Seal of the OEM

For and on behalf of M/s._____

(Name of the manufacturer)

TECH –10

Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India"

(To be submitted on Bidder's Letter Head)

To,

The Director
Directorate of Technical Education and Training, Odisha
Killa Maidan, Buxi Bazaar, Cuttack- 753001
Phone No-0671 (2301061); Email: dtetorissa@gmail.com

Dear Sir,

In reference to bid submitted by M/s _____ against DTE&T Odisha's Tender NIT Number: _____, I/We have read the Order No: 27945 /F; dated: 16-10-2020 from Finance Department, Government of Odisha regarding **restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries.**

I/We certify that M/s_____ (name of Bidder) is not from such a country and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I also certify that M/s. _____will not offer any products/services of entity from such countries unless such entity is registered with the Competent Authority.

I/We certify that we/our Collaborator/Tie-Up Partners are/is not from such a country or, if from such a country, have/has been registered with the Competent Authority and we will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

We hereby certify that we fulfill all requirements in this regard and are eligible to be considered.

Authorized *Signatory with Date and Seal*:

Name and Designation: _____

Address of the Bidder: _____

TECH –11

"Bidder's Affidavit for Micro and Small Manufacturing Enterprises to get an exemption as per the Odisha Procurement Preference Policy"

<< An affidavit on a non-judicial stamp paper of INR 10/- by Company Secretary/ Authorized Representative and Signatory of the Applicant with his/her dated Sign and Seal >>

AFFIDAVIT

(Applicable to Bidders who fall under the definition of Odisha Small Manufacturing Enterprises)

I, Shri/ Smt/ Ms……..……(Designation)…… of (name of the Bidder Enterprise) ……. solemnly state the following.

1. That annual turn-over of my enterprise is less than Rs. 50 Cr.
2. That my enterprise has a valid Udyam Registration bearing No…….. within the jurisdiction of the State of Odisha.
3. That manufacturing plant/unit of my enterprise is located in Odisha in Village/Town/City_____, Block/ULB_____Dist._____.
4. That the goods for which I am submitting this bid are manufactured in the above-mentioned manufacturing plant/unit of my enterprise.
5. That the goods to be supplied by my enterprise shall be its own manufactured goods.
6. That my enterprise shall not supply goods which are not manufactured by my enterprise.
7. That my enterprise has not been blacklisted/debarred by any Government Organization from participating in current procurement process.
8. That my enterprise comes under the definition of Odisha Small Manufacturing Enterprise (OSME), as defined in the Policy, and is, therefore, eligible for preferences and relaxations provided in the Policy for OSMEs.
9. That I am submitting this affidavit in response to the tender No_____ dated_____ invited by (Organisation Name) _____ for supply of (item name) _____.

I certify that all information furnished by me as above are true and correct. If any information is found to be incorrect, I and my enterprise shall be liable for any punitive action as deemed appropriate by competent authority.

Date: _____ Signature of Bidder _____

Name of the Bidder_____

Address_____

Mobile No.

Email:

9. SECTION V: Financial Bid (Cover-2)

Price Bid to be submitted in BoQ Ms-Excel format. The following supporting documents to be attached (in PDF format) with the seal & signature of the signing authority along with the Price Bid (BoQ Ms-Excel format) within the Cover-2.

FIN-1

COVERING LETTER
(In Bidders Letter Head)

To *[Location, Date]*

The Director
Directorate of Technical Educational and Training, Odisha
Killa Maidan, Buxi Bazar, Cuttack– 753001
Phone No-0671(2301061), Fax-0671(2301961)
Email-dtetorissa@gmail.com

Sub: "RFP for establishment of CoE in Manufacturing Process Control and Automation at Govt. ITIs of Odisha" [FINANCIAL BID]

Sir,

I, the undersigned, offer to provide the Goods/Services for [*Insert title of assignment*] in accordance with your RFP No._____, Dated: _____. Our Financial Bid is for the sum of **[*Insert amount(s) in words and figures**].** This amount is inclusive of all the applicable taxes as per GST Act.

I do hereby undertake that, in the event of acceptance of our bid, the supply/services shall be provided with respect to the terms and conditions as stipulated in the RFP document. Equipment wise cost as per format (Annexure) given in the RFP documents are mentioned below:

SL No	Particulars	Total Cost (Rs) (Without Tax)	Total Cost (Rs) (With Applicable Taxes)
1	***Total Cost of the Project** [supply of equipment, machinery and software (if any) with their perpetual licenses, tools & tackles, consumables, comprehensive warranty for 60 months and cost of freight, insurance, unloading charges, installation & commissioning charges, civil, electrical and other works (if any) and hand-holding for 36 months (if applicable) etc.] ****The bidder must provide equipment wise cost breakup (In Annexure) with this section.**		
2	**CAMC Charges for 6th year**		
3	**CAMC Charges for 7th year**		
4	**CAMC Charges for 8th year**		
	GRAND TOTAL		
	****Grand Total (Total Cost without tax) in words (_____)**		

***If any discrepancy is found in between total figure and words, then the value mentioned in word shall be final.**

** **Both Price of Goods and CAMC charges (without tax) in the BoQ will be considered for Financial Bid Evaluation.**

Equipment wise cost breakup along with rate of GST in Annexure must be submitted along with this price bid format. The total price of this breakup should match the price at serial -01 of above BOQ.

Yours faithfully,

Authorized Signatory [In full and initials]:

Name and Designation of Signatory with Date and Seal:

Annexure

Bill of Quantity (BoQ)

(on Bidders Letterhead)

Name of the Bidder: _____

Sub: RFP for establishment of Centre of Excellence in Manufacturing Process Control and Automation at Govt. ITIs of Odisha [FINANCIAL BID]

SI No	Item description	HSN Code	Price without GST	Rate of GST (%)	Price with GST
1	**Cost of Goods**				
1.1					
1.2					
1.3					
1.4					
1.5					
	*Bidder may add rows here for submission of item wise rate				
A	**Total of Cost of Goods**				
2	**Cost of Works**				
2.1	Required civil, electrical and other works (if any) for installation and commissioning of equipment/machines				
B	**Total of Cost of Works**				
3	**Cost of Services**				
3.1	Hand-Holding Charges for 36 months				
C	**Total of Cost of Services**				
	GRAND TOTAL (A+B+C) (in figure)				

The bidder can add rows below as required.

Notes:

i. Price must be quoted in INR only. Quoted Price must be fixed for the entire contract period.
ii. The quoted price should be inclusive of freight, insurance, comprehensive warranty, unloading charges, installation & commissioning charges, civil, electrical and other works, if any etc.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal.

We solemnly affirm that we will strictly adhere to the laws against fraud, corruption and unethical practices, including but not limited to "Prevention of Corruption Act, 1988", during the Request for Proposal (RFP) process and execution of the Contract, in case we are awarded the work. We understand you are not bound to accept any Proposal you receive.

Yours faithfully,

Authorized Signatory [In full and initials]:

Name and Designation of Signatory with Date and Seal:

10. Section VI: Annexures

Annexure I: Bid Submission Checklist

Sl No	Description	Submitted (Yes/No)	Page No.
Technical Proposal (PART – A)			
1	Filled in Bid Submission Check List **(ANNEXURE I)**		
2	Covering Letter **(TECH -1)**		
3	Bid Processing Fee of **Rs. 11,800**/- (Scan copy with date and DD number)		
4	EMD **amount of equal to 2% of the total quoted price without tax** (Scan copy of BG with date and BG number)		
5	Copy of Certificate of Incorporation / Registration of the Bidder		
6	Copy of PAN & Goods and Services Tax Identification Number (GSTIN)		
7	Copies of IT Returns for the last 3 FYs (2021-22, 2022-23 and 2023-24) latest GST Return (in GSTR-3B)		
8	General Details of the Bidder **(TECH - 2)**		
9	Financial details (Turnover) of the bidder **(TECH – 3)** along with all the supportive documents such as copies of Income-Expenditure Statement and Balance Sheet for the concerned period		
10	Power of Attorney **(TECH - 4)** in favour of the person signing the bid on behalf of the bidder		
11	List of completed assignments of similar nature (Past Experience Details) **(TECH – 5)** along with the copies of work orders for the respective assignments		
12	Undertaking for not have been black listed by any Central / State Govt./any Autonomous bodies as on date of bid submission. **(Tech-6)**		
13	Consortium/JV Agreement (if applicable) **(Tech-7)**		
14	Technical Compliance Sheet (Requirements and specifications as per the ToR) **(Tech-8)**		
15	Manufacturing License or the Manufacturer's Authorization Form **(TECH - 9)**		
16	Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India" **(TECH - 10)**		
17	Affidavit for Micro and Small Manufacturing Enterprises (**TECH - 11**)		
18	Net Worth Certificate duly sealed & signed by a Chartered Accountant		
19	Valid ISO/ISI certificates along with Machinery Test Certificate as applicable.		
20	Product wise brochure & catalogues and relevant information on products to be supplied		
21	Certification in its Cover Letter regarding non-failure of performance on any contract		
Financial Proposal (PART -B)			
1	Covering Letter **(FIN-1)**		
2	Bill of Quantity (BoQ) **(Annexure)**		

Undertaking:

All the information has been submitted as per the prescribed format and procedure.

Authorized Signatory [*In full and initials*]: _____

Name and Designation with Date and Seal: _____

Signature: _____

Annexure II: Performance Bank Guarantee Format

To

Directorate of Technical Education and Training, Odisha,
Killa Maidan, Buxi Bazaar, Cuttack – 753001.

WHEREAS <<Name and address of the supplier>> (hereinafter called "the supplier") has undertaken, in pursuance of contract no……dated……to supply……(description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of ……(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show ground or reasons for your demand or the sum specified therein.
We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.
We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.
This guarantee shall be valid until the…….day of…….,20…...
Our …… branch at ……* (Name & Address of the ……..* branch) is liable to pay the guaranteed amount depending on the filing of claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our ……..* branch a written claim or demand and received by us at our ……..* branch on or before Dt…… otherwise bank shall be discharged of all liabilities under this guarantee thereafter.

……..……
(Signature of the authorized officer of the Bank)
……
Name and designation of the officer
……
……...…
Seal, name & address of the Bank and address of the Branch

* Preferably at the headquarters of the authority competent to sanction the expenditure for purchase of goods or at the concerned district headquarters or the State headquarters.

Annexure III: Proforma of the "Comprehensive Annual Maintenance Contract (CAMC) to be Signed between DTE&T, Odisha and the Agency"

This Agreement (hereinafter called the "Agreement") is made on this [•] day of the month of [month], [year].

BETWEEN

Directorate of Technical Education and Training, Odisha having its office at Killa maidan, Buxi Bazar, Cuttack – 753001 (hereinafter referred to as "DTET", which expression shall, unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the first part.

AND

M/s. [•], a company incorporated under the provisions of the Companies Act, 1956/2013 or a registered partnership firm under the provisions of the Indian Partnership Act, 1932 or a LLP firm registered under LLP Act, 2008 and having its registered office at [•] (hereinafter referred to as the "Service Provider" which expression shall unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the other part.

WHEREAS

i) the Service Provider, in the ordinary course of its business, is engaged in providing [•] services to its clients, and have represented to DTET through their bid(s), against Bid document No. [•] dated [•] (hereinafter called the "Tender") for the Procurement of Goods and provide Annual Comprehensive Maintenance Services (CAMC) for the equipment/machines supplied at CoE in Mining with Drone Survey at GP Deogarh, after completion of warranty period - [•] (through e-procurement tender process);

ii) on the basis of the said Tender, DTET has adjudged the Service Provider as a successful Bidder and issued Letter of Award (LoA) No. [•] dated [•] for the same;

iii) the Service Provider has agreed through their letter of acknowledgement vide letter No. [•] dated [•] to perform and undertake the scope of work as described in the Tender;

iv) the Service Provider is being engaged to provide the required services on the terms and conditions set forth in this Agreement;

NOW THEREFORE THE PARTIES hereby agree as follows:

1. The mutual rights and obligations of the Service Provider and DTET shall be as set forth in this Agreement, in particular:

   - The Service Provider shall provide the services in accordance with the provisions of this Agreement; and

   - DTET shall make payments to the Service Provider in accordance with the provisions of this Agreement.

2. **Conditions of Contract**

   (a) Contract Period: Annual Comprehensive Maintenance Contract (CAMC) initially valid for fifteen months and may be extended further if necessary.

   (b) Payment Terms: 100% of the annual awarded value (final quoted /negotiated prices) within 30 days of submission of Tax invoice along with certification from the Principal of consignee institute.

Payment shall be released annually on completion of CAMC subject to satisfactory performance and due recommendation from concerned Principal/Head of institute.

(c) Other Terms and Conditions:

i. Maintenance services shall consist of Preventive and Corrective maintenance of equipment specified above & will include supply and replacement of parts free of cost.

ii. Preventive maintenance, half-yearly once to be done, should include:

a. Check-up to ensure that device connection is proper; cabling is at proper condition etc.

b. Cleaning of the above equipment & checking the system performance.

iii. The Supplier is to furnish the tentative schedule of the preventive maintenance for the equipment mentioned above of Comprehensive Annual Maintenance Contract (CAMC) to be carried out.

iv. The parts replaced must be new parts or equivalent in performance to new parts.

v. All software updates should be provided free of cost during CAMC period

vi. The Supplier will also provide the same maintenance service in case of the movement of equipment from the place of original installation to a different place or lab within the consignee institute's premises.

vii. Any complaint informed through telephone/e-mail must be acknowledged with a Complaint No. by the Supplier which will be noted by Consignee. All further contact with the Supplier on such complaint will be initiated through that Complaint No. Once rectification is done, that No. will be cancelled by both parties. A register is to be maintained by the Supplier where complaints are to be noted along with Complaint No.

viii. The maintenance shall normally be done during working hours of the customer i.e. from 10 AM to 5 PM. However, in case of emergency, maintenance may have to be done beyond office hours and even on holidays. Prior arrangement through proper communication should be worked out in all such cases by the Supplier and the Consignee.

ix. The Service Engineer of the Supplier will be allowed to handle the respective equipment only in presence of the officer in charge at the Consignee site.

x. The Supplier should ensure that maintenance job is not hampered / delayed due to paucity of spares/ inadequate manpower, etc.

xi. The Supplier should submit the service call report to the Consignee for each and every service call without fail.

xii. In case of delay / lack of communication, penalty will be calculated as mentioned below in CAMC Clause.

COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT CLAUSE

Category of Maintenance	Response Time	Penalty/Delay Charges
Minor faults	Immediately with telephonic or email support or maximum within 48hrs from the actual time of reporting of the problem to the Supplier.	0.5% (Half Percent) of the total contract value (without tax) shall be deducted for every week's delay. The delay charges will be deducted from the pending payment or Performance Security submitted by the Supplier. In no context the total delay charges will exceeds 5% of the total Contract Value

		(excluding taxes).
Minor repair which requires visit to the Consignee Institute	Within 7 days of complaint registered.	
Major breakdown or replacement of parts	Within 15 days from the complaint registered to supplier.	

xiii. A logbook shall be maintained in which the vendor shall record all the complaints made and parts taken out of branches/office for repair. The vendor shall submit copy of consolidated complaint reports furnishing the details of institute-wise breakdown calls lodged/attended and its status on quarterly basis to Purchaser's office at Cuttack.

xiv. Repair and servicing of equipment shall be carried out at consignee institute sites, in case the equipment is required to be transported to the Supplier's/manufacture's service workshop for repairs, the same shall be undertaken at the risk and cost of the Supplier. Moreover, the Supplier may furnish Security Amount in form of Demand Draft (equal to the cost of the equipment/machine) to the Principal of the Consignee Institute before the equipment taken out from the consignee institute.

xv. After completion of the work/repair/maintenance, the Principal of the consignee institute shall issue a certificate of completion to the supplier.

(d) The Agreement shall be governed by the laws of India and the courts of Bhubaneswar/Cuttack shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with this Agreement

(e) This Agreement has been executed in English, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Agreement

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective authorized representatives on the day and year first before written.

For and on behalf of Directorate of Technical Education and Training, Odisha
(Authorized Representative)
Name:
Designation: Director
DTE&T Odisha
Killa Maidan, Buxi Bazaar, Cuttack-751001, Odisha

For and on behalf of M/s.
(Authorized Signatory)
Name:
Designation:
Name of the Service Provider:
Address:

In presence of the following witnesses

Name:
Designation:
DTE&T Odisha
Killa Maidan, Buxi Bazaar, Cuttack-751001, Odisha

Name:
Designation:
Name of the Service Provider:
Address:

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