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

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

NIT No. DTET/2026-27/8384(2) Date: 18.07.2026

REQUEST FOR PROPOSAL (RFP)

TO

ESTABLISH CENTRE OF EXCELLENCES IN

ADVANCED CNC MACHINING TECHNICIAN 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 in Advanced CNC Machining technicians at Govt. ITIs"** 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	20.07.2026
2	Due Date for Submission of Proposal	05.08.2026 (by 5:00 PM)
3	Date of Opening of Technical proposal	06.08.2026 (by12:00 PM)
4	Date of Technical Presentation	To be informed to the technically qualified bidders later
5	Date of Opening Financial Proposal	Through the e-tender portal to be intimated later by e-mail to the technically qualified bidders.
6	Method of Selection	Least Cost Selection (LCS)

The proposals complete in all respect must be submitted through e-tender process latest by 05.08.2026 before 5:00 PM) clearly mentioning **''Request for Proposal for establishment of CoE in Advanced CNC Machining technicians at Govt. ITIs''.** 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. 8384(2) **Date: 18.07.2026**

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 Dr. Sradhananda Beura, Sr. Lecturer (IT), O/O DTE & T, Odisha for publication on the Website and Notice Board of DTE&T for wide publicity.

Sd/-

Director
DTE&T, Odisha

REQUEST FOR PROPOSAL

FOR

ESTABLISHMENT OF CENTRE OF EXCELLENCE IN ADVANCED CNC MACHINING TECHNICIANS AT GOVERNMENT INDUSTRIAL TRAINING INSTITUTES

Directorate of Technical Education and Training, Odisha
Killa Maidan, Buxi Bazar,
Kataka-753001
Phone No-0671(2301061),
Fax-0671(2301961)
Email: dtetorissa@gmail.com; dtetodisha.procurement@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)**	20.07.2026
5.	**Due date for submission of proposals**	05.08.2026 (by 5:00 PM) (**www.tendersodisha.gov.in**)
6.	**Date of opening of Technical Proposal**	06.08.2026 (by 12:00 PM)
7.	**Date of Technical Presentation and**	To be informed to the technically qualified bidders later.
8.	**Date of Opening of Financial Proposal**	Through the e-tender portal to be intimated later by e-mail to the technically qualified bidders
9.	**Bid Processing Fee (Non-Refundable)**	Rs. 10,000/- + GST: 18 % = Rs. 11,800/- (Payment should be done through online mode)
10.	**Earnest Money Deposit (EMD) (Refundable)**	INR 42,00,000/- valid for minimum 225 days from last date of bid submission. (through Online mode)
11.	**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.
12.	**Address of the Client:**	Director, Directorate of Technical Education and Training (DTE&T) Odisha, Killa Maidan, Buxi Bazar, Kataka, Pin Code: 753001 **E-mail**:dtetorissa@gmail.com; & dtetodisha.procurement@gmail.com **Contact person**: 1. Smt. Rinata Das, Joint Director (Procurement), DTE&T Odisha, Mob. 9861132851

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

RFP No: **Date:**

Name of the Assignment: "RFP for establishment of CoE in Advanced CNC Machining technicians at Govt. ITIs".

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 Advanced CNC Machining technicians at Govt. ITIs".** 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 INR 42,00,000/-** 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.**

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.

·. No.	·e-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 Joint Ventures (JV)/Consortium. or c. Limited Liability Partnership registered under The Limited Liability Partnership Act, 2008 registered. d. Proprietorship Firm.	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 **03 (three) 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**	Average annual turnover of the bidder or consortium over the last three Financial Years i.e., FY: 2022-23, 2023-24 & 2024-25 should not be **less than ₹11 Crore**	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 as per the last published audited Balance Sheet, i.e., for **FY 2024-25** should be positive. ii) also should not eroded by more than 30% (thirty per cent) in the last three years, ending on '31st Mar'2026'.	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 certification.	Copy of valid ISO certificates of the agency/ the OEM must be submitted.
7	**Past Experience Supply of equipment/machineries from similar sector**	The bidder, during last 03 (Three) financial years must have the experience in Execution of work order involving supply of equipment/machineries of same sector with total order value of 4 Cr of tender value single or multiple order) in Govt. organization OR Execution of work order involving supply of equipment/machineries of same sector with total order value of 2 Cr of tender value in Govt. organization(Single or multiple order)+5 Cr of tender value (single or Multiple order) in Private organization.	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)
8	**Minimum Qualification Trainers for hand holding Training**	The agency must provide at least two (02) Qualified and Experienced Resource person for each CoE with minimum Graduate Engineer and minimum 2 years of industry experience or Diploma Engineer with 3 years of Industry experience in relevant field.	
9	**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.
10	**Mandatory Documents**	The bidder shall submit the Technical data in compliance with the minimum 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 minimum technical specifications mentioned in the ToR.
11	**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.	otarized Undertaking by the Authorized Signatory (TECH-6)
12	**Consortium/ Joint Venture**	Consortium /Joint Venture may be allowed but with a condition that OEM/Authorized Partner should be the lead partner and will be responsible for execution of contract. Maximum 03 (three) partners may be allowed in a JV. Sub-Contracting will not be allowed.	bmission 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)
13	**Authorized Representative**	A Power of Attorney in the name of the person signing the proposal.	iginal Power of Attorney (Notarized on a Rs.100/- Non-Judicial Stamp Paper) (TECH-4)
14	**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	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

		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 Bid liable for outright rejection at the sole discretion of the Director, DTE&T.
15	**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 should be done through online mode
16	**Earnest Money Deposit (EMD) (Refundable)**	The Bidder shall furnish EMD amount of INR 42,00,000/- valid for minimum 225 days from last date of submission of bid.	Payment should be done through online mode

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**

Three 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 3):

1. Lead Member (minimum participation share – 50%)
2. Other Members (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 Payment should be done through online mode. 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 **INR 42,00,000/-** Payment should be done through online mode and valid for minimum 225 days from the last date of submission of bids. Bids received without EMD will be rejected. Proof of submission must be attached with the technical bid.

The EMD amount is interest free and would be refunded through online mode after finalization of selection process and award of contract. The EMD, for the amount mentioned above, of the successful Bidder would be returned 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 seek clarification on any part of this RFP up to five (5) days from the date of issuance of the tender. Queries shall be submitted through email to dtetodisha.procurement@gmail.com , as specified in the Bidder Data Sheet. Bidders may submit their queries relating to the RFP and any other relevant details to DTE&T in the format prescribed below.

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

The client will address the queries submitted by the bidders.

i. The Client's responses to Bidder queries (if any) 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.
ii. 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 not less than **11 Crore** in the last three financial years **(i.e., FY: 2022-23, 2023-24 & 2024-25).** *Scoring Criteria:* • Greater than or equal to Rs.11 Crore of Tender value and less than Rs. 15 Crore: **05 Marks** • Greater than Rs. 15 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 Excellences (CoEs) 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	**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)

	follows. *Scoring Criteria:* • For individual work order value of Rs. 2 Crore or more: **10 Marks will be given.** • For individual work order value more than Rs.1 Crore: **05 Marks will be given.** (Maximum up to 20 marks)		
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 financial years must have experience of imparting training at ITI or Technical Institution to the minimum trainees/Students: • Trained and certified to 50 – 100 students: **05 marks** • trained and certified to more than 100 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 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 CoE and they need to project thru 3D view, how they are planning to setup the labs and place all equipment at CoE.

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 Kataka /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.

SECTION III: Terms of Reference (ToR)

"RFP for establishment of CoE in Advanced CNC Machining technicians at Govt. ITIs of Odisha".

I. Introduction:

The Directorate of Technical Education and Training, Odisha, having its principal office at Killa Maidan, Buxi Bazaar, Kataka-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- <u>Scope of the Successful Bidder:</u>

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.
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 Resource person for each CoE with minimum Graduate Engineer and minimum 2 years of industry experience or Diploma Engineer with 3 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 these CoEs' 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 CoE (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:

List of Equipment for each CoE in Advanced CNC Machining and Manufacturing at following Govt. ITIs.

1. **Govt. PCITI Baripada, Mayurbhanj**
2. **Govt. ITI Pottangi, Koraput**
3. **Govt. ITI Raighar, Nabarangpur**
4. **Govt. ITI, Parjang**

Technical Specifications of equipment to setup CoE in Advanced CNC Machining and Manufacturing (each CoE):

Sl. No	Product Name & Description	Qty
1	**CNC Machines & its Corresponding Accessories**	
1.1	CNC Turning with Fanuc Controller	1No
1.2	CNC Turning with Siemens/Mitsubishi Controller	1 No
1.3	CNC Turn mill Centre	1 No
1.4	VMC with Fanuc Controller	1 No
1.5	VMC with Siemens/Mitsubishi Controller	1 No
1.6	5-axis Vertical Machining Centre with 5 axis simultaneous machining software	1 No
1.7	Air Compressor & Refrigerated Air Dryer	1 Each
1.8	Surface Plate (Granite stone with stand)	1No
1.9	Precision Measuring Instruments	As Required
1.10	Cutting Tool Holder & Insert (Inserted type, Carbide) for CNC Lathe	As Required
1.11	Cutting Tool holder and Insert for VMC & 5-axis VMC	As Required
1.12	100 kVA Online UPS	1 No
2	**CNC Simulation Lab**	
2.1	CNC Simulator (Sinumeric/Fanuc/Heidenhain) – Student Console	15Nos
2.2	CNC Simulator (Sinumeric/Fanuc/Heidenhain) – Teacher Console	1 No
2.3	10kVAonlineUPSwith3in3outandminimum60minutes backup	1 No
3	**CAD/CAM Lab**	
3.1	Master Cam software 1 teacher + 15 student (Perpetual License)	16 Users
3.2	High End Computer for CAD/CAM software (Perpetual License)	16 Users
4	**Additive Manufacturing Lab**	
4.1	FDM Technology 3D Printer	1 No
4.2	MSLA (Masked Stereolithography) 3D Printer	1 No
4.3	3D Scanner	1 No

1.1 Technical Specification/Compliance Statement of CNC Turning Centre (Fanuc Controller) with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**CNC Turning Centre (Fanuc Controller): Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	**Work Area Dimensions**				
1.1	Swing over bed:	Not less than 500 mm			
1.2	Distance between centres:	Not less than 400 mm			
1.3	Maximum turning dia.:	Not less than 400 mm			
1.4	Maximum Turning Length:	Not less than 400 mm			
2	**MAIN SPINDLE**				
2.1	Spindle nose:	A2-5 or better			
2.2	Bore through spindle:	Not less than 42 mm			
2.3	Maximum Bar capacity:	Not less than dia. 25 mm			
2.4	Spindle Speed range :	50-4000rpm or better			
2.5	Spindle motor power (Continuous rating/30 mins rating):	Minimum 5.5 kW/7.5 Kw			
2.6	Chuck size:	Not less than 150 mm			
3	**AXES SLIDES**				
3.1	X-axis Travel:	Not less than 150 mm			
3.2	Z-axis Travel:	Not less than 400 mm			
3.3	Rapid traverse rate:X-axis:	Not less than 20 m/min			
3.4	Rapid traverse rate:Z-axis :	Not less than 20 m/min			
3.5	Feed rate :	Not less than 10 m/min			
4	**TURRET**				
4.1	Turret Type :	Servo Turret/Hydraulic Turret			
4.2	No.of station:	Minimum 8 Nos			
4.3	Maximum Boring bar dia.:	40mm or more			
4.4	OD turning tool size:	Not less than 25mm x 25mm			
5	**TAIL STOCK**				
5.1	Tail stock Base travel:	Not less than 200mm.			
5.2	Tail stock Quill travel:	Not less than 100mm			
5.3	Tail stock Quill diameter:	Not less than 80 mm			
5.4	Quill Taper:	Minimum MT-4			
5.5	Quill thrust :	Minimum 300 kgf @ 12 kg/cm2 bar pressure			
6	**CONFIGURATION**				
6.1	CNC CONTROL SYSTEM:	Latest Version of Fanuc Oi MF Plus			
6.2	BED TYPE:	Slant/Integral			
6.3	GUIDE WAYS:	High precision roller LM (Linear motion) guides ways or better			
7	**ACCURACIES**				
7.1	POSITIONING				
	X- AXIS:	0.007 mm or better			
	Z - AXIS:	0.007 mm or better			
7.2	REPEATABILITY				
	X- AXIS:	0.005 mm or better			

	Z - AXIS:	0.005 mm or better			
7.3	Run out:	0.005 mm or better			
8	**COOLANT SYSTEM**				
8.1	Tank capacity:	Suitable as per the machine			
9	**LUBRICATION**				
9.1	Central lubrication:	Automatic lubrication for roller guide ways, ball screw.			
9.2	Hydrulic power pack:	Not less than 32 ltr.			
9.3	System Pressure:	Not less than 30 kg/cm2			
10	**MAKES OF CRITICAL MACHINE TOOL COMPONENTS**				
10.1	Linear Motion Guideways	HIWIN/CPC/THK/PMI/STAR			
10.2	Ball Screws	HIWIN/THK/TSUBAKI/PMI/STAR/HMT/NSK			
10.3	Spindle Bearings	RHP/NSK/FAG/SKF/NRB/NACHI			
10.4	Turret	PRAGATI/BARUFFALDI/SAUTER/DUPLOMATIC			
10.5	Hydraulic Chuck & Cylinder	GMT/KITAGAWA/AIRTECH/PRAGATI/ROHM			
10.6	Hydraulic Power Pack	YUKEN/FLUID/REXROTH			
10.7	Panel AC	WERNER FINLEY/RITTAL/LEXTECNOID/ADVANCE COOLING			
10.8	Lubrication	CENLUBE/DROPCO/EQUIVALENT			
10.9	Coolant Pump	RAJAMANE/GRUNDFOS			
11	**STANDARD FEATURES**				
11.1	**Industry 4.0 and IoT system enabled**				
11.2	Stress relieved casting for headstock and bed				
11.3	Hardened and ground Linear Motion guide ways				
11.4	Spindle encoder for thread cutting operation				
11.5	Hydraulic operated 3 Jaw chuck with one set of hard & soft jaw.				
11.6	Minimum 8 station Servo bi-directional Turret				
11.7	Tailstock with hydraulic operated quill				
11.8	Slant/Integral type bed and LM guide ways for axis				
11.9	Coolant tank				
11.10	Chip Tray				
11.11	Foot switch for Chuck & Tailstock				
11.12	AC spindle Drive and axis drive				
11.13	Auto and manual coolant system				
11.14	Closed pitch ball screw, supported at both ends, pre tensioned preferable.				
11.15	Automatic centralised oil lubrication for guide ways and ball screw.				
12	**STANDARD ACCESSORIES**				
12.1	Electronic hand wheel (manual pulse generator)				
12.2	Built in lighting system				
12.3	Boring bar holder (4 nos.)				
12.4	Set of reduction sleeves				
12.5	3 jaw hydraulic chuck dia 150mm (min).				
12.6	programmable quill				
12.7	Full machine guard				
12.8	Coolant system				
12.9	Maintenance tool kit				
12.10	AC Spindle (Cartridge)				
12.11	AC Spindle Drive (Fanuc make)				

12.12	AC Servo Axes Drive (Fanuc make)			
12.13	Automatic programmble Centralised Oil Lubrication System			
12.14	Chip Tray to be provided			
12.15	Levelling screws and Mounting pads			
12.16	Machine operating manual and programming manual – 2 sets			
12.17	One set of installation, maintenance and spare parts manual			
12.18	Hard Jaws & Soft jaws 4 sets each			
12.19	Taper shank drill sleeves (MT1, MT2, MT3)			
12.20	OD Tool holder clamping block			
12.21	Door safety interlock			
12.22	Fully enclosed splash guard with sight windows			
12.23	Fully encapsulated housing with safety type window			
12.24	Leveling pads			
13	**STANDARD CONTROL FEATURES**			
13.1	8.4" or better color display			
13.2	Manual data input			
13.3	Alarm/ operation history display			
13.4	Self diagnostics function			
13.5	Constant surface speed control			
13.6	Continuous Thread cutting cycles			
13.7	Feed rate override			
13.8	RS 232 interface/Ethernet/USB/LAN Port			
13.9	External memory and sub programme calling function			
13.10	Backlash compensation			
13.11	512 kb Part Programme storage memory			
13.12	Background editing			
13.13	Memory card input/ output			
13.14	Hourly part count			
13.15	Colour graphics display			
13.16	Dynamic Simulation Display			
13.17	Panel AC			
14	**Documentation**			
14.1.1	Machine Manuals			
14.1.2	Mechanical maintenance manual 2 sets each (one hard copy and one soft copy)			
14.1.3	Electrical maintenance manual 2 sets each (one hard copy and one soft copy)			
14.1.4	Detailed Layout plan			
14.1.5	Operating and Programming Instruction			
14.1.6	Installation and Commissioning instructions			
14.1.7	Quality Test and Accuracy Test Chart Records			
14.1.8	Circuit Diagrams			
14.1.9	Maintenance / Repair Charts			
14.1.10	Preventive Maintenance Instructions			
14.1.11	Lubrication Chart & Lubricant list			
14.1.12	Instruction manual for supplied Coolant Concentrate and Coolant Maintenance			
14.1.13	Detailed packing list of all Items and devices and detailed prospect of machine & all other Accessories to be enclosed in the respective boxes. Lifting instruction to be shown in packing list.			
14.2.1	Installation & Commissioning			
14.2.2	The complete installation and commissioning including first fill of Hydraulic Oil and Coolant Oil must be carried out by the supplier at the project (at the final destination/ premises)			
14.2.3	The machine to be inspected as per accuracy chart before dispatch at supplier site. The suppliers to prove out the "Test Components" in all aspects. Acceptance and Qualification during			

	Pre Dispatch Inspection (PDI), at the supplier end. Release of machine for dispatch after successful completion of acceptance test post PDI.			
14.2.4	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/ premises. A final accuracy test with an identified test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
15	**Service**			
15.1	The manufacturer should have established after sales and service network in India			
15.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation			
15.3	Number of silmilar machine installed in India in a reputed organisation. (Minimum 3 PO to be attached along with offer.)			

1.2 Technical Specification/Compliance Statement of CNC Turning Centre (Siemens/Mitsubishi Controller) with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**CNC Turning Centre (Siemens/Mitsubishi Controller): Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	**Work Area Dimensions**				
1.1	Swing over bed:	Not less than 500 mm			
1.2	Distance between centres:	Not less than 400 mm			
1.3	Maximum turning dia.:	Not less than 400 mm			
1.4	Maximum Turning Length:	Not less than 400 mm			
2	**MAIN SPINDLE**				
2.1	Spindle nose:	A2-5 or better			
2.2	Bore through spindle:	Not less than 42 mm			
2.3	Maximum Bar capacity:	Not less than dia. 25 mm			
2.4	Spindle Speed range :	50-4000rpm or better			
2.5	Spindle motor power (Continuous rating/30 mins rating):	Minimum 5.5 kW/7.5 Kw			
2.6	Chuck size:	Not less than 150 mm			
3	**AXES SLIDES**				
3.1	X-axis Travel:	Not less than 150 mm			
3.2	Z-axis Travel:	Not less than 400 mm			
3.3	Rapid traverse rate:X-axis:	Not less than 20 m/min			
3.4	Rapid traverse rate:Z-axis :	Not less than 20 m/min			
3.5	Feed rate :	Not less than 10 m/min			
4	**TURRET**				
4.1	Turret Type :	Servo Turret/Hydraulic Turret			
4.2	No.of station:	Minimum 8 Nos			
4.3	Maximum Boring bar dia.:	40mm or more			
4.4	OD turning tool size:	Not less than 25mm x 25mm			
5	**TAIL STOCK**				
5.1	Tail stock Base travel:	Not less than 200mm.			
5.2	Tail stock Quill travel:	Not less than 100mm			
5.3	Tail stock Quill diameter:	Not less than 80 mm			

5.4	Quill Taper:	Minimum MT-4			
5.5	Quill thrust :	Minimum 300 kgf @ 12 kg/cm2 bar pressure			
6	**CONFIGURATION**				
6.1	CNC CONTROL SYSTEM:	Siemens 828D or latest/Mitsubishi latestS			
6.2	BED TYPE:	Slant/Integral			
6.3	GUIDE WAYS:	High precision roller LM (Linear motion) guides ways or better			
7	**ACCURACIES**				
7.1	POSITIONING				
	X- AXIS:	0.007 mm or better			
	Z - AXIS:	0.007 mm or better			
7.2	REPEATABILITY				
	X- AXIS:	0.005 mm or better			
	Z - AXIS:	0.005 mm or better			
7.3	Run out:	0.005 mm or better			
8	**COOLANT SYSTEM**				
8.1	Tank capacity:	Suitable as per the machine			
9	**LUBRICATION**				
9.1	Central lubrication:	Automatic lubrication for roller guide ways, ball screw.			
9.2	Hydrulic power pack:	Not less than 32 ltr.			
9.3	System Pressure:	Not less than 30 kg/cm2			
10	**MAKES OF CRITICAL MACHINE TOOL COMPONENTS**				
10.1	Linear Motion Guideways	HIWIN/CPC/THK/PMI/STAR			
10.2	Ball Screws	HIWIN/THK/TSUBAKI/PMI/STAR/HMT/NSK			
10.3	Spindle Bearings	RHP/NSK/FAG/SKF/NRB/NACHI			
10.4	Turret	PRAGATI/BARUFFALDI/SAUTER/DUPLOMATIC			
10.5	Hydraulic Chuck & Cylinder	GMT/KITAGAWA/AIRTECH/PRAGATI/ROHM			
10.6	Hydraulic Power Pack	YUKEN/FLUID/REXROTH			
10.7	Panel AC	WERNER FINLEY/RITTAL/LEXTECNOID/ADVANCE COOLING			
10.8	Lubrication	CENLUBE/DROPCO/EQUIVALENT			
10.9	Coolant Pump	RAJAMANE/GRUNDFOS			
10	**STANDARD FEATURES**				
10.1	**Industry 4.0 and IoT system enabled**				
10.2	Stress relieved casting for headstock and bed				
10.3	Hardened and ground Linear Motion guide ways				
10.4	Spindle encoder for thread cutting operation				
10.5	Hydraulic operated 3 Jaw chuck with one set of hard & soft jaw.				
10.6	Minimum 8 station Servo bi-directional Turret				
10.7	Tailstock with hydraulic operated quill				
10.8	Slant/Integral type bed and LM guide ways for axis				
10.9	Coolant tank				
10.10	Chip Tray				
10.11	Foot switch for Chuck & Tailstock				
10.12	AC spindle Drive and axis drive				
10.13	Auto and manual coolant system				

10.14	Closed pitch ball screw, supported at both ends, pre tensioned preferable.			
10.15	Automatic centralised oil lubrication for guide ways and ball screw.			
11	**STANDARD ACCESSORIES**			
11.1	Electronic hand wheel (manual pulse generator)			
11.2	Built in lighting system			
11.3	Boring bar holder (4 nos.)			
11.4	Set of reduction sleeves			
11.5	3 jaw hydraulic chuck dia 150mm (min).			
11.6	programmable quill			
11.7	Full machine guard			
11.8	Coolant system			
11.9	Maintenance tool kit			
11.10	AC Spindle (Cartridge)			
11.11	AC Spindle Drive (Fanuc make)			
11.12	AC Servo Axes Drive (Fanuc make)			
11.13	Automatic programmble Centralised Oil Lubrication System			
11.14	Chip Tray to be provided			
11.15	Levelling screws and Mounting pads			
11.16	Machine operating manual and programming manual – 2 sets			
11.17	One set of installation, maintenance and spare parts manual			
11.18	Hard Jaws & Soft jaws 4 sets each			
11.19	Taper shank drill sleeves (MT1, MT2, MT3)			
11.20	OD Tool holder clamping block			
11.21	Door safety interlock			
11.22	Fully enclosed splash guard with sight windows			
11.23	Fully encapsulated housing with safety type window			
11.24	Leveling pads			
12	**STANDARD CONTROL FEATURES**			
12.1	8.4" or better color display			
12.2	Manual data input			
12.3	Alarm/ operation history display			
12.4	Self diagnostics function			
12.5	Constant surface speed control			
12.6	Continuous Thread cutting cycles			
12.7	Feed rate override			
12.8	RS 232 interface/Ethernet/USB/LAN Port			
12.9	External memory and sub programme calling function			
12.10	Backlash compensation			
12.11	512 kb Part Programme storage memory			
12.12	Background editing			
12.13	Memory card input/ output			
12.14	Hourly part count			
12.15	Colour graphics display			
12.16	Dynamic Simulation Display			
12.17	Panel AC			
13	**Documentation**			
13.1.1	Machine Manuals			
13.1.2	Mechanical maintenance manual 2 sets each (one hard copy and one soft copy)			
13.1.3	Electrical maintenance manual 2 sets each (one hard copy and one soft copy)			
13.1.4	Detailed Layout plan			
13.1.5	Operating and Programming Instruction			
13.1.6	Installation and Commissioning instructions			

13.1.7	Quality Test and Accuracy Test Chart Records			
13.1.8	Circuit Diagrams			
13.1.9	Maintenance / Repair Charts			
13.1.10	Preventive Maintenance Instructions			
13.1.11	Lubrication Chart & Lubricant list			
13.1.12	Instruction manual for supplied Coolant Concentrate and Coolant Maintenance			
13.1.13	Detailed packing list of all Items and devices and detailed prospect of machine & all other Accessories to be enclosed in the respective boxes. Lifting instruction to be shown in packing list.			
13.2.1	Installation & Commissioning			
13.2.2	The complete installation and commissioning including first fill of Hydraulic Oil and Coolant Oil must be carried out by the supplier at the project (at the final destination/ premises)			
13.2.3	The machine to be inspected as per accuracy chart before dispatch at supplier site. The suppliers to prove out the "Test Components" in all aspects. Acceptance and Qualification during Pre Dispatch Inspection (PDI), at the supplier end. Release of machine for dispatch after successful completion of acceptance test post PDI.			
13.2.4	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/ premises. A final accuracy test with an identified test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
14	**Service**			
14.1	The manufacturer should have established after sales and service network in India			
14.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation			
14.3	Number of silmilar machine installed in India in a reputed organisation. (Minimum 3 PO to be attached along with offer.)			

1.3 Technical Specification/Compliance Statement of CNC Turn-Mill Centre (Slant Bed) of Fanuc Controller with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**CNC Turn-Mill Centre (Fanuc Controller): Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	**Work Area Dimensions**				
1.1	Swing over bed:	Not less than 550 mm			
1.2	Maximum swing over carriage:	Not less than 280 mm			
1.3	Maximum turning dia.:	Not less than 250 mm			
1.4	Maximum Turning Length:	Not less than 500 mm			
2	**MAIN SPINDLE**				
2.1	Chuck Diameter	Not less than 250 mm			
2.2	Spindle nose:	A2-6 or better			

2.3	Bore through spindle:	Not less than 42 mm			
2.4	Maximum Bar capacity:	Not less than 50 mm			
2.5	Maximum Spindle Speed	Not less than 3000rpm			
2.6	Spindle motor power (Continuous/Intermitent):	Minimum 11 kW/15 Kw			
3	**Traverse:**				
3.1	X axis stroke:	Not less than 200 mm			
3.2	Y axis stroke	Not less than 100 mm			
3.3	Z axis stroke:	Not less than 500 mm			
3.4	Rapid traverse rate: X-axis:	Not less than 20 m/min			
3.5	Rapid traverse rate: X-axis:	Not less than 10 m/min			
3.6	Rapid traverse rate: Z-axis:	Not less than 20 m/min			
3.7	Maximum cutting feed rate:	Not less than 10 m/min			
4	**TURRET**				
4.1	Turret Type:	Servo Turret/Hydraulic Turret			
4.2	No. of Tool Station:	Minimum 10 Nos			
4.3	No. of Live Tool Station:	Minimum 10 Nos			
4.4	Live tool collet type	ER 32			
4.5	Live Tool Power	Not less than 4 Kw			
4.6	Live Tool Speed	Not less than 4000 RPM			
4.7	Maximum Boring bar dia.:	40mm or more			
4.8	OD turning tool size:	Not less than 25mm x 25mm			
5	**TAIL STOCK**				
5.1	Tail stock Base travel:	Not less than 300mm.			
5.2	Tail stock Quill travel:	Not less than 100mm			
5.3	Tail stock Quill diameter:	Not less than 80 mm			
5.4	Quill Taper:	Minimum MT-4			
5.5	Quill thrust:	Minimum 300 kgf @ 12 kg/cm2 bar pressure			
6	**Ball Screw:**				
6.1	Ball Screw for X, Y & Z axis	Should be Hardened & Ground			
6.2	Ball Screw -Dia	Not less than 30 mm			
7	**CONFIGURATION**				
7.1	CNC CONTROL SYSTEM:	Latest Version of Fanuc Oi MF Plus			
7.2	BED TYPE:	Slant/Integral			
7.3	GUIDE WAYS:	High precision roller LM (Linear motion) guides ways or better			
7.4	Guideways Width	Not less than 35 mm			
8	**ACCURACIES**				
8.1	POSITIONING				
	X- AXIS:	0.007 mm or better			
	Z - AXIS:	0.007 mm or better			
8.2	REPEATABILITY				
	X- AXIS:	0.005 mm or better			
	Z - AXIS:	0.005 mm or better			
8.3	Run out:	0.005 mm or better			
9	**COOLANT SYSTEM**				
9.1	Tank capacity:	Suitable as per the machine			
10	**LUBRICATION**				
10.1	Central lubrication:	Automatic lubrication for roller guide ways, ball screw.			
10.2	Hydrulic power pack:	Not less than 32 ltr.			
10.3	System Pressure:	Not less than 30 kg/cm2			

11	**STANDARD FEATURES**			
11.1	**Industry 4.0 and IoT system enabled**			
11.1	Stress relieved casting for headstock and bed			
11.2	Hardened and ground Linear Motion guide ways			
11.3	Spindle encoder for thread cutting operation			
11.4	Hydraulic operated 3 Jaw chuck with one set of hard & soft jaw.			
11.5	Minimum 8 station Servo bi-directional Turret			
11.6	Tailstock with hydraulic operated quill			
11.7	Slant/Integral type bed and LM guide ways for axis			
11.8	Coolant tank			
11.9	Chip Tray			
11.10	Foot switch for Chuck & Tailstock			
11.11	AC spindle Drive and axis drive			
11.12	Auto and manual coolant system			
11.13	Closed pitch ball screw, supported at both ends, pre tensioned preferable.			
11.14	Automatic centralised oil lubrication for guide ways and ball screw.			
12	**STANDARD ACCESSORIES**			
12.1	Electronic hand wheel (manual pulse generator)			
12.2	Built in lighting system			
12.3	Boring bar holder (4 nos.)			
12.4	Set of reduction sleeves			
12.5	3 jaw hydraulic chuck dia 150mm (min).			
12.6	programmable quill			
12.7	Full machine guard			
12.8	Coolant system			
12.9	Maintenance tool kit			
12.10	AC Spindle (Cartridge)			
12.11	AC Spindle Drive (Fanuc make)			
12.12	AC Servo Axes Drive (Fanuc make)			
12.13	Automatic programmble Centralised Oil Lubrication System			
12.14	Chip Tray to be provided			
12.15	Levelling screws and Mounting pads			
12.16	Machine operating manual and programming manual – 2 sets			
12.17	One set of installation, maintenance and spare parts manual			
12.18	Hard Jaws & Soft jaws 4 sets each			
12.19	Taper shank drill sleeves (MT1, MT2, MT3)			
12.20	OD Tool holder clamping block			
12.21	Door safety interlock			
12.22	Fully enclosed splash guard with sight windows			
12.23	Fully encapsulated housing with safety type window			
12.24	Leveling pads			
13	**STANDARD CONTROL FEATURES**			
13.1	8.4" or better color display			
13.2	Manual data input			
13.3	Alarm/ operation history display			
13.4	Self diagnostics function			
13.5	Constant surface speed control			
13.6	Continuous Thread cutting cycles			
13.7	Feed rate override			
13.8	RS 232 interface/Ethernet/USB/LAN Port			
13.9	External memory and sub programme calling function			
13.10	Backlash compensation			
13.11	512 kb Part Programme storage memory			
13.12	Background editing			

13.13	Memory card input/ output				
13.14	Hourly part count				
13.15	Colour graphics display				
13.16	Dynamic Simulation Display				
13.17	Panel AC				
14	**MAKES OF CRITICAL MACHINE TOOL COMPONENTS**				
14.1	Linear Motion Guideways	HIWIN/CPC/THK/PMI/STAR			
14.2	Ball Screws	HIWIN/THK/TSU/BAKI/PMI/STAR/HMT/NSK			
14.3	Spindle Bearings	RHP/NSK/FAG/SKF/NRB/ NACHI			
14.4	Turret	PRAGATI/BARUFFALDI/SAUTER/DUPLOMATIC			
14.5	Hydraulic Chuck & Cylinder	GMT/KITAGAWA/AIRTECH/PRAGATI/ROHM			
14.6	Hydraulic Power Pack	YUKEN/FLUID/REXROTH			
14.7	Panel AC	WERNER FINLEY/ RITTAL/LEXTECNOID/ ADVANCE COOLING			
14.8	Lubrication	CENLUBE/DROP CO/EQUIVALENT			
14.9	Coolant Pump	RAJAMANE/GRUNDFOS			
15	**Documentation**				
15.1	Machine Manuals				
15.2	Mechanical maintenance manual 2 sets each (one hard copy and one soft copy)				
15.3	Electrical maintenance manual 2 sets each (one hard copy and one soft copy)				
15.4	Detailed Layout plan				
15.5	Operating and Programming Instruction				
15.6	Installation and Commissioning instructions				
15.7	Quality Test and Accuracy Test Chart Records				
15.8	Circuit Diagrams				
15.9	Maintenance / Repair Charts				
15.10	Preventive Maintenance Instructions				
15.11	Lubrication Chart & Lubricant list				
15.12	Instruction manual for supplied Coolant Concentrate and Coolant Maintenance				
15.13	Detailed packing list of all Items and devices and detailed prospect of machine & all other Accessories to be enclosed in the respective boxes. Lifting instruction to be shown in packing list.				
15.14	Installation & Commissioning				
15.15	The complete installation and commissioning including first fill of Hydraulic Oil and Coolant Oil must be carried out by the supplier at the project (at the final destination/ premises)				
15.16	The machine to be inspected as per accuracy chart before dispatch at supplier site. The suppliers to prove out the "Test Components" in all aspects. Acceptance and Qualification during Pre Dispatch Inspection (PDI), at the supplier end. Release of machine for dispatch after successful completion of acceptance test post PDI.				
	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/ premises. A final accuracy test with an identified				

15.17	test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
16	**Service**			
16.1	The manufacturer should have established after sales and service network in India			
16.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation			
16.3	Number of silmilar machine installed in India in a reputed organisation. (Minimum 3 PO to be attached along with offer.)			

1.4 Technical Specification/Compliance Statement of CNC Vertical Machining Centre (Fanuc Controller) with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**CNC Vertical Machining Centre (Fanuc Controller): Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	**Field of Application**				
1.1	Machining of single jobs and batch production.				
1.2	Standard machining of press tool plate, die plates, mould plates, fixtures, Precision machining jobs in :				
1.3	Face, shoulder and pocket milling.				
1.4	Drilling & Boring application Tapping.				
1.5	Die and Mould Machining				
2	**Material**				
2.1	Tool steel, low-medium-high alloyed (Toughened &, Stainless steel ,Casting steels, low, & medium carbon steels, Cast iron, Grey cast iron & Nodular cast iron ferritic / pearlitic type HRB 125-200 (Non hardened) etc.				
2.2	Non ferrous metals like Aluminium and aluminium alloys, Copper and copper alloys and Brass				
3	**Technical Data**				
3.1	Work Area Dimensions	AXIS TRAVEL CAPACITY			
3.1.1	X-Axis	X-Axis - 350 mm (minimum)			
3.1.2	Y-Axis	Y-Axis - 300 mm (minimum)			
3.1.3	Z-Axis	Z-Axis - 280 mm (minimum)			
3.2	**Machine Table**				
3.2.1	Table size:	600 mm × 300 mm (minimum)			
3.2.2	Work holding: 3 Nos.(min.) T-slot	14/15/16 H7 Width			
3.2.3	Table loading capacity	Min. 250 kg.			
3.3	**Machine Spindle & Head Stock**				
3.3.1	Spindle speed	6,000 rpm (min)			
3.3.2	Balanced Spindle				
3.3.3	Instant Tool Clamping and declamping by Pneumatic.				
3.4	Drive System	BELT DRIVE/ INLINE DRIVE/ INTEGRATED MOTORISED SPINDLE			
3.5	Spindle Motor Power -	5.5 kW min. (continuous), 7.5			

	Continuous/intermitent	kW min. (15 Minute interupted) or better			
3.6	Feedrate	1-5000mm/min or better			
3.6	Digital controlled AC Spindle Motor drive				
3.7	Adjustable external coolant nozzles				
3.8	Spindle Taper/Tool adaptor / holder	BT-40 / SK-40			
3.9	Power failure detection module				
3.10	Centralised Auto Lubrication System				
3.11	**Automatic Tool Changer**				
3.11.1	Number of Tools	10 Nos. minimum			
3.11.2	Maximum Tool diameter can be hold in pocket	Not less than 50mm			
3.11.3	Maximum tool diameter can be hold in pocket with adjecent pocket empty	Not less than 100mm			
3.11.4	Maximum Tool Length	Not less than 200mm			
3.11.5	Maximum Tool Weight	Not less than 7kg			
4	**Coolant System**				
4.1	Coolant Tank & filter unit with chip tray	As per suitablity of machine			
4.2	First Fill of Coolant				
5	**Axis Drives & Control**				
5.1	Digital controlled drive and motors for all axis.				
5.2	LM Guide ways				
5.3	Rapid Feed for all axis	10 m/min minimum			
5.4	Feed rate	5 m/min minimum			
5.5	Machining feed range in 3-Axis simultaneously resulting.				
6	**Accuracies**				
6.1	Positional accuracy for full stroke in each axis:	0.01 mm or less			
6.2	Repeatability:	0.007 mm or less			
6.3	Straightness:	0.010 mm or less for full stroke			
6.4	Perpendicularity:	0.010 mm or less for full Stroke.			
6.5	Run out (Max):	0.003 mm run out at nose.			
6.6	Run out on test bar:	0.005 mm or less (Test Bar Length 200 mm)			
6.7	Note :-Positional accuracy and repeatability values should be reported as per ISO 230-2 standard. If the manufacturer follows any other standards such as VDI/DGQ, JIS, ASME/ANSI for these measurements, the values should be reported as per the respective standard. Testing should be done through Laser Calibration.				
7	**CNC Control Unit Features**				
7.1	**Controller**	Latest Version of Fanuc Oi MF Plus			
7.2	Industry 4.0 and IoT system enabled				
7.3	Page for machine error compensation				
7.4	USB Support and I/O Interface Ethernet/LAN Port				
7.5	Rigid tapping function				
7.6	Emergency stop on control panel, remote control				
7.7	CNC controller to take care of Stored pitch error Compensation				
7.8	Backlash compensation for cutting traverse				

7.9	Backlash compensation for rapid traverse			
7.10	Faster data processing rate			
7.11	Min. 8.4" LCD Colour Monitor with soft keys.			
7.12	Swivelling panel with in-built keyboard, monitor & operating knobs.			
7.13	Standard cycles for drilling, reaming, boring, thread cutting, tapping etc.			
7.14	Control memory with Look ahead Function	1GB minimum or better		
7.15	Display PLC ALARAM message			
7.16	Over travel control			
7.17	Standard USB Port and memory card slot (with pen drive steel body)			
7.18	Emergency stop on control panel			
7.19	Back ground editting and simulation of NC Programme			
7.20	Pitch error compensation			
7.21	Machine hour reading			
7.22	Spindle load display			
7.23	Power Failure & Self diagnostic function			
7.24	Panel AC			
7.25	Feed control potentionmeter 10% increment range from 0-150%			
7.26	Spindle Speed control potentionmeter 10% increment range from 50-120%			
7.27	Emergency brake knob			
7.28	Tool life management			
7.29	Canned cycles (Drilling, Peck Drill ,Tapping ,Boring cycle)			
7.30	Inch/Metric conversion			
7.31	RS 232 serial interface port			
8	**Accessories**			
8.1	Fully enclosed splash guard with sight window, fully encapsulated housing with safety type window.			
8.2	Chip Collection Tray to be provided			
8.3	Levelling pads			
8.4	Door safety interlock			
8.5	Manual Pulse Generator (MPG)			
8.6	Work-piece washing gun.			
8.7	Machine Lamp			
8.8	Door safety interlock			
8.9	Pull stud - 20 Nos.			
8.10	Coolant gun + Air gun			
8.11	Operation & Maintenance Manuals (both soft and hard copy)			
8.12	Maintenance Tool Kit			
8.13	First Fill Oil			
8.14	Clamping Kit–1set (Tool boy & C spanner)			
8.15	A.C. Unit for Electrical Cabinet			
8.16	3 Tier Lamp			
8.17	Leveling Pads & Foundation Bolts			
8.18	Tool trolley Dimension-H 965mm X W1000mm X D 600mm Number of drawer–4 Made in CRCA Steel with premium powder coating for long life 1 no			
8.19	Hydraulic Machine vice, Jaw opening (0-200mm) jaw width 6"inch (Nikon,Vertex, Aries)–1no Overall length less than 420 mm. with ratchet handle (remove aries)			
9	**Documentation**			
9.1	Machine Manuals			
9.2	Mechanical maintenance manual 2 sets each (one hard copy and one soft copy)			
9.3	Electrical maintenance manual 2 sets each (one hard copy and one soft copy)			

9.4	Detailed Layout plan			
9.5	Operating and Programming Instruction			
9.6	Installation and Commissioning instructions			
9.7	Quality Test and Accuracy Test Chart Records			
9.8	Circuit Diagrams			
9.9	Maintenance / Repair Charts			
9.10	Preventive Maintenance Instructions			
9.11	Lubrication Chart & Lubricant list			
9.12	Instruction manual for supplied Coolant Concentrate, Maintenance			
9.13	Detailed packing list of all Items and devices and detailed prospect of machine & all other Accessories to be enclosed in the respective boxes. Lifting instruction to be shown in packing list.			
10	**Installation & Commissioning**			
11.1	The complete installation and commissioning including first fill of Hydraulic Oil and Coolant Oil must be carried out by the supplier at the project (at the final destination/ premises)			
11.2	The machine to be inspected as per accuracy chart before dispatch at supplier site. The suppliers to prove out the "Test Components" in all aspects. Acceptance and Qualification during Pre Dispatch Inspection (PDI), at the supplier end. Release of machine for dispatch after successful completion of acceptance test post PDI.			
11.3	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/premises. A final accuracy test with an identified test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/ consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
11	**Service**			
11.1	The manufacturer should have established after sales and service network in India.			
11.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation.			
11.3	Number of silmilar machine installed in India in a reputed organisation. (Minimum 3 PO to be attached along with offer.)			

1.5 Technical Specification/Compliance Statement of CNC Vertical Machining Centre (Siemens/ Mitsubishi Controller) with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**CNC Vertical Machining Centre (Siemens/ Mitsubishi Controller): Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	**Field of Application**				
1.1	Machining of single jobs and batch production.				
1.2	Standard machining of press tool plate, die plates, mould plates, fixtures, Precision machining jobs in :				
1.3	Face, shoulder and pocket milling.				
1.4	Drilling & Boring application Tapping.				
1.5	Die and Mould Machining				
2	**Material**				
2.1	Tool steel, low-medium-high alloyed (Toughened &, Stainless steel ,Casting steels, low, & medium carbon steels, Cast iron, Grey cast iron & Nodular cast iron ferritic / pearlitic type HRB 125-200				

	(Non hardened) etc.				
2.2	Non ferrous metals like Aluminium and aluminium alloys, Copper and copper alloys and Brass				
3	**Technical Data**				
3.1	Work Area Dimensions	AXIS TRAVEL CAPACITY			
3.1.1	X-Axis	X-Axis - 350 mm (minimum)			
3.1.2	Y-Axis	Y-Axis - 300 mm (minimum)			
3.1.3	Z-Axis	Z-Axis - 280 mm (minimum)			
3.2	**Machine Table**				
3.2.1	Table size:	600 mm × 300 mm (minimum)			
3.2.2	Work holding: 3 Nos.(min.) T-slot	14/15/16 H7 Width			
3.2.3	Table loading capacity	Min. 250 kg.			
3.3	**Machine Spindle & Head Stock**				
3.3.1	Spindle speed	6,000 rpm (min)			
3.3.2	Balanced Spindle				
3.3.3	Instant Tool Clamping and declamping by Pneumatic.				
3.4	Drive System	BELT DRIVE/ INLINE DRIVE/ INTEGRATED MOTORISED SPINDLE			
3.5	Spindle Motor Power - Continuous/intermitent	5.5 kW min. (continuous), 7.5 kW min. (15 Minute interupted) or better			
3.6	Feedrate	1-5000mm/min or better			
3.6	Digital controlled AC Spindle Motor drive				
3.7	Adjustable external coolant nozzles				
3.8	Spindle Taper/Tool adaptor / holder	BT-40 / SK-40			
3.9	Power failure detection module				
3.10	Centralised Auto Lubrication System				
3.11	**Automatic Tool Changer**				
3.11.1	Number of Tools	10 Nos. minimum			
3.11.2	Maximum Tool diameter can be hold in pocket	Not less than 50mm			
3.11.3	Maximum tool diameter can be hold in pocket with adjecent pocket empty	Not less than 100mm			
3.11.4	Maximum Tool Length	Not less than 200mm			
3.11.5	Maximum Tool Weight	Not less than 7kg			
4	**Coolant System**				
4.1	Coolant Tank & filter unit with chip tray	As per suitablity of machine			
4.2	First Fill of Coolant				
5	**Axis Drives & Control**				
5.1	Digital controlled drive and motors for all axis.				
5.2	LM Guide ways				
5.3	Rapid Feed for all axis	10 m/min minimum			
5.4	Feed rate	5 m/min minimum			
5.5	Machining feed range in 3-Axis simultaneously resulting.				
6	**Accuracies**				
6.1	Positional accuracy for full stroke in each axis:	0.01 mm or less			
6.2	Repeatability:	0.007 mm or less			

6.3	Straightness:	0.010 mm or less for full stroke			
6.4	Perpendicularity:	0.010 mm or less for full Stroke.			
6.5	Run out (Max):	0.003 mm run out at nose.			
6.6	Run out on test bar:	0.005 mm or less (Test Bar Length 200 mm)			
6.7	Note:-Positional accuracy and repeatability values should be reported as per ISO 230-2 standard. If the manufacturer follows any other standards such as VDI/DGQ, JIS, ASME/ANSI for these measurements, the values should be reported as per the respective standard. Testing should be done through Laser Calibration.				
7	**CNC Control Unit Features**				
7.1	**Controller**	Siemens 828D or latest /Latest Version of Mitsubishi			
7.2	Industry 4.0 and IoT system enabled				
7.3	Page for machine error compensation				
7.4	USB Support and I/O Interface Ethernet/LAN Port				
7.5	Rigid tapping function				
7.6	Emergency stop on control panel, remote control				
7.7	CNC controller to take care of Stored pitch error Compensation				
7.8	Backlash compensation for cutting traverse				
7.9	Backlash compensation for rapid traverse				
7.10	Faster data processing rate				
7.11	Min. 8.4” LCD Colour Monitor with soft keys.				
7.12	Swivelling panel with in-built keyboard, monitor & operating knobs.				
7.13	Standard cycles for drilling, reaming, boring, thread cutting, tapping etc.				
7.14	Control memory with Look ahead Function	1GB minimum or better			
7.15	Display PLC ALARAM message				
7.16	Over travel control				
7.17	Standard USB Port and memory card slot (with pen drive steel body)				
7.18	Emergency stop on control panel				
7.19	Back ground editting and simulation of NC Programme				
7.20	Pitch error compensation				
7.21	Machine hour reading				
7.22	Spindle load display				
7.23	Power Failure & Self diagnostic function				
7.24	Panel AC				
7.25	Feed control potentionmeter 10% increment range from 0-150%				
7.26	Spindle Speed control potentionmeter 10% increment range from 50-120%				
7.27	Emergency brake knob				
7.28	Tool life management				
7.29	Canned cycles				
7.30	Inch/Metric conversion				
7.31	RS 232 serial interface port				
8	**Accessories**				
8.1	Fully enclosed splash guard with sight window, fully encapsulated housing with safety type window.				
8.2	Chip Collection Tray to be provided				
8.3	Levelling pads				
8.4	Door safety interlock				
8.5	Manual Pulse Generator (MPG)				
8.6	Work-piece washing gun.				
8.7	Machine Lamp				
8.8	Door safety interlock				

8.9	Pull stud - 20 Nos.			
8.10	Coolant gun + Air gun			
8.11	Operation & Maintenance Manuals (both soft and hard copy)			
8.12	Maintenance Tool Kit			
8.13	First Fill Oil			
8.14	Clamping Kit–1set (Tool boy & C spanner)			
8.15	A.C. Unit for Electrical Cabinet			
8.16	3 Tier Lamp			
8.17	Leveling Pads & Foundation Bolts			
8.18	Tool trolley Dimension-H 965mm X W1000mm X D 600mm Number of drawer–4 Made in CRCA Steel with premium powder coating for long life 1 no			
8.19	Hydraulic Machine vice, Jaw opening (0-200mm) jaw width 6"inch (Nikon,Vertex, Aries)–1no Overall length less than 420 mm. with ratchet handle (remove aries)			
9	**Documentation**			
9.1	Machine Manuals			
9.2	Mechanical maintenance manual 2 sets each (one hard copy and one soft copy)			
9.3	Electrical maintenance manual 2 sets each (one hard copy and one soft copy)			
9.4	Detailed Layout plan			
9.5	Operating and Programming Instruction			
9.6	Installation and Commissioning instructions			
9.7	Quality Test and Accuracy Test Chart Records			
9.8	Circuit Diagrams			
9.9	Maintenance / Repair Charts			
9.10	Preventive Maintenance Instructions			
9.11	Lubrication Chart & Lubricant list			
9.12	Instruction manual for supplied Coolant Concentrate, Maintenance			
9.13	Detailed packing list of all Items and devices and detailed prospect of machine & all other Accessories to be enclosed in the respective boxes. Lifting instruction to be shown in packing list.			
10	**Installation & Commissioning**			
10.1	The complete installation and commissioning including first fill of Hydraulic Oil and Coolant Oil must be carried out by the supplier at the project (at the final destination/ premises)			
10.2	The machine to be inspected as per accuracy chart before dispatch at supplier site. The suppliers to prove out the "Test Components" in all aspects. Acceptance and Qualification during Pre Dispatch Inspection (PDI), at the supplier end. Release of machine for dispatch after successful completion of acceptance test post PDI.			
10.3	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/premises. A final accuracy test with an identified test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/ consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
11	**Service**			
11.1	The manufacturer should have established after sales and service network in India.			
11.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation.			
11.3	Number of silmilar machine installed in India in a reputed organisation. (Minimum 3 PO to be attached along with offer.)			

1.6 Technical Specification/Compliance Statement of 5-axis Vertical Machining Centre with 5 axis simultaneous machining software with Industry 4.0 and IoT

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
A	**5-axis Vertical Machining Centre with 5 axis simultaneous machining software:** **Make & Model:**				
B	**Quoted Machine's Country of Origin**				
1	It should be of compact design based on modern machine concept as well as control design should ensure highest accuracy, surface finish and productivity.				
2	**Table Dimensions**	**Table Load carrying capacity**: Not less than 60 kg. **Table Size**: Not less than ø 250 mm			
3	**Axes Travel**	• X Axis = Not less than 500 mm • Y Axis = Not less than 500 mm • Z Axis = Not less than 380 mm • C Axis = 0-360º continuous • A Axis = ±110°			
4	**Rapid Traverse**	• Rotary Axis C : Not less than 200 rpm • Swivel Axis A : Not less than 200 rpm • Speed X,Y, Z : Not less than 50 m/min			
5	**Accuracy as per ISO 230-2**	• Positional accuracy (P) = 10 µ or better • Positional repeatability (Ps) = 7 µ or better • Run out : 0.005 mm or better at spindle nose			
6	**Positioning accuracy**	• Work-piece holding arrangement should be Manual/ Hydraulic /Pneumatic • C axis (table – with motor encoder) : 10 Arc-Sec or better • A axis (tilting – with motor encoder) : 10 Arc-Sec or better			
7	**Spindle Details**	• Spindle Taper: BBT40/HSK A63 or Better • Spindle power: Not less than 7.5/11 Kw (Continuous/Intermitent) • Maximum spindle torque:35 Nm or more • Speed range: Not less than 20000 rpm			
8	**Feed**	• Feed rate : Not less than 20 m/min for X/Y/Z Axes			
9	**Axes & Spindle Drives**	• All drives should be of AC digital type and to ensure smooth transmission with zero slippage • Guide ways and ball screws should be protected with telescopic covers			
10	**Automatic Tool Changer**	• No.of Tools: Not less than 30 Nos. • Max. Tool Weight: Not less than 3Kg • Tool Change Time(T-T): 2 Sec or Better			
11	**CNC Control System**				
11.1	Latest updated ISO certified control system with following essential features. Latest PC and drive based modular CNC control system capable of handling all axes simultaneous				

	interpolation at high speeds and accuracy and all-channel programming.			
11.2	System should be capable of controlling feed rate at corners with look ahead feature and a high block processing speed.			
11.3	Jerk free positioning. System should have features like bell shaped acceleration/ deceleration,			
11.4	Basic setup of the machine (Positioning, Tool change, Spindle ON/OFF and plane transformation etc.) should be possible in Manual / Jog mode			
11.5	DIN/ISO and CAPS programming with online graphic help should be standard and following options are must			
11.6	On-board servo and drive optimization should be possible. On-board maintenance and service tools should be available.			
11.7	Access control should be possible with different levels for operators, supervisors, programmers and maintenance personnel			
11.8	Program management and tool management functions should be standard and user friendly.			
11.9	Probing cycles for setup and measurement should be standard.			
11.10	Intuitive screen guide should be available for tool length and work offset measurement.			
11.11	Transformation functions like Rotate, Mirror, Scaling, co-ordinate rotation, child co-ordinate system, Tool and work offset entry through program, helical interpolation, polar coordinate function, polar coordinate interpolation, Rigid tapping, TCPM, Tilted plane machining, Cycles for milling, drilling , tapping, thread milling, patterns, cylindrical interpolation, High speed machining settings, Island and pocket machining cycles for 2.5D programming, Automatic compensation cycle for swivel and rotary pivot points.			
12	**Programming & control features**			
12.1	10" screen with key board & display in English language.			
12.2	Integrated programmable controller			
12.3	Compensation of tool size			
12.4	CNC main memory hard disc should be of minimum 4GB and suitable RAM and user memory			
12.5	2D graphic display & graphic simulation.			
12.6	Metric & inch input			
12.7	Spindle orientation			
12.8	Linear, circular, helical, interpolation & rigid tapping.			
12.9	Least input increment: 0.001mm			
12.10	Tool Radius and length off set and tool wear compensation			
12.11	Absolute & incremental programming			
12.12	ISO code programme format			
12.13	Co-ordinate transformation			
12.14	Alarm error display, and diagnostic features			
12.15	Software & hardware locking Key for machine & control			
12.16	Program repetition, Coordinate transformation, Rotation, Mirror, Canned Cycles (Drilling ,Milling, Tapping & Boring) and Macro Programming, copying ,scaling, parametric programming & program error indication.			
12.17	Tool monitoring system.			
12.18	DNC, External interface: Ethernet, USB port interface, facilities.			
12.19	Automatic repositioning after cycle			
12.20	Block search & skip.			
12.21	Programme restart after interruption			
13	**Monitoring and control of machine for**			
13.1	Monitoring of number of tools used for machining per workpiece.			

14	**Display features**			
14.1	Machine Axis position. Display of all the features of LCD should be in English			
14.2	Program under execution			
14.3	Block no.			
14.4	Active command block.			
14.5	Spindle speed & feed rate- actual &			
14.6	programmed value.			
14.7	Absolute position.			
14.8	Distance to go.			
14.9	Tool no & off set no.			
14.10	Error message			
14.11	Mode of operation.			
14.12	Tool under execution.			
14.13	Relative position			
14.14	Part program & tool file library.			
14.15	Tool data			
14.16	Work zero.			
14.17	Reset			
14.18	Reference point			
14.19	Manual tool indexing in ATC			
14.20	Manual tool loading to spindle.			
14.21	Feed hold			
14.22	Emergency stop.			
14.23	Block search.			
14.24	Feed rate over ride: 0 – 120%.			
14.25	Spindle over ride: 50 –120 %.			
14.26	Auto/single cycle, Jog, MDI, etc			
14.27	modes.			
14.28	Test run / dry run.			
14.29	Cycle start & stop.			
14.30	Part programme edit selector.			
14.31	Cycle error indication.			
15	**Lubrication**			
15.1	Linear roller and ball screw spindle Automatic oil-lubrication Main spindle bearing lifetime grease lubrication			
16	**Power Supply**			
16.1	3 Phase			
17	**Safety**			
17.1	Working area of the machine should have safety enclosure with glass windows.			
17.2	The machine must be provided with all safety features necessary to protect damage/ injury. the machine, control and the operator while in operation from possible			
17.3	Automatic machine shutoff with warning in the event of lubrication and coolant failure, spindle off and axis over travel.			
18	**Standard Machines Accessories along with machine:**			
18.1	Operation & Maintenance Manuals (both soft and hard copy)			
18.2	Maintenance Tool Kit			
18.3	PullStuds-30Nos.			
18.4	Coolant gun and Air gun			
18.5	First Fill Oil			
18.6	Clamping Kit – 1 set (Tool boy & C spanner)			
18.7	A.C.Unit for Electrical Cabinet			
18.8	3 Tier Lamp			
18.9	Leveling Pads & Foundation Bolts			

18.10	Tool trolley Dimension- H 965 mm X W 1000mm x D 600 mm Number of drawer – 4 Compact 5-axis Precision hydraulic vice with proper clamping system to machine bed, jaw width 125 mm, clamping range 0 - 205 mm, total vice length should be less than 250 mm. (Only lang, Schunk or Hass)			
18.11	Voltage Stabiliser - As Required			
18.12	Hydraulic Machine vice, Jaw opening(0-200mm) jaw width 6" inch (Nikon, Vertex, Aries) – 1 no			
19	**INSTALLATION & COMMISIONING**			
19.1	The complete installation and commissioning must be carried out by the supplier for all the machines at the final destination/ premises. A final accuracy test with an identified test component to be conducted by the purchaser/consignee. Final accuracy test report is to be signed jointly by Purchaser/consignee and supplier. Final acceptance would be given after conducting the accuracy test at the installation location.			
20	**Warranty**			
20.1	The company should provide 60 months of warranty service.			
22	Service			
22.1	The manufacturer should have established after sales and service network in India			
22.2	The authorised service partner in India (Name & address), must be certified by the manufacturer and shown in the quotation			

1.7 Air Compressor & Refrigerated Air Dryer

S. No.	Description	Specification	Bidders Specifications **[Ref. Footnote]	Confirmation/ Deviation if Any	Justification/ Reason
1	**Air Compressor**				
1.1	Motor Power	22 KW/30 HP,415V,3Phase/50Hz Induction Motor/IP55			
1.2	Working Pressure	9.5 kg/cm2			
1.3	Maximum Pressure	10 kg/cm2			
1.4	Free Air Delivery	108 CFM			
1.5	Dimension	Standrad			
1.6	Weight	Standard			
1.7	Noise	69dB or less			
1.8	Type	Air Cooled, Encap Series Tank Mounted Rotary Screw Air Compressor, Single stage			
1.9	Starter	PLC operated			
1.10	Version	Canopied			
1.11	Starter	PLC opearted automatic Star-Delta			
1.12	Features	Oil-flooded, Twin rotary, Positive displacement, Compact, Energy efficient, Unique horizon series			
2	**Refrigerated Air Dryer**				
2.1	Dryer Technology	Refrigerated			
2.2	Rating	20-500 CFM			
2.3	Maximum Pressure	10-16 bar			
2.4	Dimension	Standard			
2.5	Weight	Standard			
2.6	Maximum Temperature	65°C.			

2.7	Output Pressure Dew Point	.+3°C (37.4°F) or higher			
2.8	Cooling Media	Air			
2.9	Filter	Downstream Pre, Fine & Carbon Filters,capacity-90-1200cfm, Working pressure-7-60bar,Filtration Range-1-0.003 micron.			

1.8 Surface Plate (Granite stone with stand) - MITUTOYO or equivalent

Sl No	Brief description & Specification	Bidder's Response Complied/Not complied	Remarks
1.	**Make**		
2.	Granite Surface plate with stand "Material - Granite Size: 600mm× 600mm × 100mm(min) Weight 100 (kg) (min) Grade1:8(µm) (Measuring temperature 20±1°C)		
3.	Certificate of Accreditation: National Accreditation Board for Testing and calibration Laboratories ISO/IES17025 :2017"1		

1.8 Precision Measuring Instruments

SL NO	INSTRUMENT NAME	SPECIFICATION	MAKE WITH CODE NO	Qty	BIDDER'S RESPONSE
1.	ANALOGUE VERNIER CALIPER	0-150MM, LC 0.2MM, FINE ADJUSTMENTTO CONTROL SLIDER MOVEMENT	MITUTOYO 532-119	02NOS	
2.	ANALOGUEVERNIER CALIPER	0-300MM,LC 0.2MM, FINE ADJUSTMENT TO CONTROL SLIDER MOVEMENT	MITUTOYO 532-121	01NO	
3.	DIGITALVERNIER CALIPER	0-150MM, MEASURING ACCURACY 0.001, LCD READ OUT	MITUTOYO 500-196-30	01NO	
4.	OUTSIDE MICROMETER	0-25 MM RANGE, RATCHET STOP, 0.01 GRADUATION	MITUTOYO 103-137	01NO	
5.	OUTSIDE MICROMETER	25-50MM RANGE, RATCHET STOP, 0.01 GRADUATION	MITUTOYO 103- 138	01NO	
6.	OUTSIDE MICROMETER	50-75 MM RANGE, RATCHET STOP,0.01 GRADUATION	MITUTOYO 103-139	01NO	
7.	OUTSIDE MICROMETER	75-100 MM RANGE, RATCHET STOP,0.01 GRADUATION	MITUTOYO 103-140-10	01NO	
8.	DIGITAL OUTSIDE MICROMETER	0-25 MM RANGE, RATCHET STOP, 0.001 GRADUATION,COOLANT	MITUTOYO 293-240-30	01NO	

		PROOF			
9.	INSIDE MICROMETER	50-200 MM RANGE, 0.01MM RESOLUTION, 3RODS	MITUTOYO 141-205	01NO	
10.	VERNIER DEPTH GAUGE	0-25 MM RANGE,0.01 GRADUATION, RATCHET STOP	MITUTOYO 128-101	01NO	
11.	THREAD PITCH GAUGE	THREAD PITCH GAUGE METRIC	MITUTOYO 504-188-122	01NO	
12.	DIALBORE GAUGE	35-60MM RANGE	MITUTOYO 511-702	01NO	
13.	PLUNGER DIAL INDICATOR	RANGE-5 MM, GRADUATION–0.01 MM	MITUTOYO 10445	02NO	
14.	LEVER DIAL TEST INDICATOR	POCKET TYPE,FULL SET,GRADUATION-0.01MM,RANGE–0.08 MM,AGGURACY–8 MICRON	MITUTOYO 513-517 T	02NO	
15.	MAGNETIC STAND FOR DIAL INDICATOR	L X B X H – 26CM X9CM X6CM	MITUTOYO	01NO	
16.	HOLE TEST 3-PIN INSIDE MICROMETER	RANGE – 20-25 MM, GRADUATION– 0.01 MM	MITUTOYO 368-166	01O	

1.9 Cutting Tool Holder & Insert (Inserted type, Carbide) for CNC Lathe

SLNO	NAMEOF HOLDER	SPECIFICATION	MAKE	QTY	BIDDER'S RESPONSE
1.	PCLN R/L HOLDER FOR OD TURNING	PCLN R/L 2525M12	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
2.	INSERTFORPCLNR/L	CNMG120408	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	60 NOS	
3.	PDJNR/ HOLDER FORODTURNING	PDJNR/L2525M11	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
4.	INSERTFORPDJNR/L	DNMG110408	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	60 NOS	
5.	SVJCR/L HOLDER FORODTURNING	SVJCR/L2525 M11	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
6.	INSERTFORSVJCR/L	VCMT110408	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	60 NOS	
7.	SDQCR/LDIA12 HOLDERFORID BORING	S12SDQCR07	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
8.	INSERTFOR SDQCR/L	DCMT070204	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	60 NOS	

9.	SCQCR/LDIA10 HOLDERFORID BORING	S10K-SCFCR06/ EQUIVAL ENT	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
10.	INSERTFOR SCQCR/L	CCMT060204	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	60 NOS	
11.	TTELHOLDERFOR OD AND FACE GROOVING	TTEL 25 25 3 15/EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
12.	INSERTFORTTEL	TDT3E0.4TT9030/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	30 NOS	
13.	SER/LHOLDERFOR EXTERNAL THREADING	SER 25 25 M16/EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
14.	INSERTFORSER/L	16ER 1.00ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
15.	INSERTFORSER/L	16ER 1.50ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
16.	INSERTFORSER/L	16ER 2.00ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
17.	SNR/LHOLDERFOR INTERNAL THREADING	SNR0016M16/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
18.	INSERTFORSNR/L	16IR 1.00ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
19.	INSERT FOR SNR/L	16IR 1.50ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
20.	INSERTFORSNR/L	16IR 2.00ISO	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	15 NOS	
21.	ER32 COLLET ADAPTORFOR DRILLIG	ER32COLLET ADAPTOR	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NOS	
22.	SOFTJAWFOR165 MM CHAUCK	SIZE 35X12X20X65XM10	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 SETS	
23.	SHANKTOOLFOR PARTING AND GROOVING	LF123G20- 2020B /EQUIVALEN T	SANDVIK/ SECO/ KENMENTAL/TUNGALOY/ ISCAR/WALTER/EQUIVALENT	03 NO	

1.10 Cutting Tool holder and Insert for VMC & 5-axis VMC

SLNO	DESCRIPTION	SPECIFICATION	MAKE	QUANTITY
1	**Adaptor BT-40Er-32**	CCH/ER32-070/BT40/ EQUIVALENT	SANDVIK/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER/SECO	9
2	**StubArborBt-40, 22mm**	SEM/22-70/BT40/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	6
3	**Face Milling Cutter (Inserted Type) –dia.63MM**	TPTN12M063B22.0R06 /EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
4	**Insert for dia63face mill cutter**	TNMU120708PER-MJ AH3225/EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	60
5	**End mill cutter (inserted type) dia-16mm**	EPAV12M016C16.0R02 /EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
6	**Insert for dia16 end mill cutter**	AVMT120404PDE-MMAH120/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	60
7	**Shoulder Mill Cutter-Dia 50 mm**	TPO11R050M22.0E07/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
8	**Insert for Shoulder Mill Cutter- Dia 50mm**	ASMT11T308PDPR-MJ AH725/EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	60
9	**Solid Carbide End mill Dia 6mm**	ME-6-14-20-C6 MPL4001/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
10	**Solid Carbide End mill Dia 8mm**	ME-8-18-26-C8-MPL4001/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
11	**Solid Carbide End mill**	ME-10-22-32-C10-MPL4001/	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
12	**SolidCarbideEndmill Dia 12mm**	ME-12-26-38-C12-MPL4001/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
13	**SolidCarbideBallnose cutter Dia 8mm**	ME-8-11-C8- FAM2B01/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
15	**SolidCarbideBallnose cutter Dia 10mm**	ME-10-13-C10 FAM2B01/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
16	**SpringCollectER32 SET (3-20)(18NOS)**	ER32	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
17	**SideLockAdapter**	SLH/25-100/BT40/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3
18	**Φ18Udrill,L/D-2**	TDX180F252/ EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	3

19	**Insert for above Drill**	XPMT06X308R-DJ AH7030 EQUIVALENT	SANDVIK/ SECO/ KENMENTAL/ TUNGALOY/ISCAR/ WALTER	30
20	**HSS DRILL BIT SET (3-12)MMINSTEPOF 0.5MM**	HSSDRILLBITSET (3-12)MM	ADDISON/ MIRANDA/YG1	6

1.11 100kVA Online UPS with minimum 60mins backup

Item Descriptions		**Bidder's Response**
Rating in KVA (KVA)	100KVA; Must be conforming to IEC 62040-3;	
Technology	IGBT-PWM with inbuilt Isolation transformer, external not allowed	
Input Power	Three phase 300V-450V sine wave, 50Hz	
Output power	Three Phase 400V+/-1% with alternative user settable setting of 400V+/- 1% 50 Hz	
Backup time (Minutes)	60	
Minimum VAH(VAH)	76800 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 synchronising	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 overshoot and Undershoot 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)(%)	Maximum3%	
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 & overload at UPS output terminal	Yes	
Digital Metering in UPS for AC Input Voltage, Output AC Voltage, Current, Frequency, Battery	Yes	

Voltage and Current		
Indicators for mains presence, Battery charging and discharging, Output Over Load, Low Battery Voltage	Yes	
Overload Rating:	125% for 10m and 150% for 60s	
Battery charging	Adjustable charging cycle to extend battery operating life	
Display & control	To notice the health status of the UPS system, there must be an instant visible communication system (for example multicolor LED system),so that in the event of failure or diagnosis of the UPS, the user will promptly acknowledge it.	
Operating temperature	0-40˚C	
Relative humidity	<95% not condensing	
Noise at 1m (dBA)	<60	
Reference product standards	EN/IEC62040-1, EN/IEC 62040-2,EN/IEC62040-3, CE, The Bidder Should be submitted the Certificate at the time of bidding.	
Certification	The Bidder Should Submit Type Test Certificate of UPS same or higher rating issued from Central Govt . NABL accredited Laboratory of UPS Testing viz. ETDC(STQC)/ERTL/CPRIat the time of Bidding.	
Protection	Protection against over temperature/fire & Lighting/surge	
Damp Heat: in accordance with IS:9000 (part 5/sec. 2)1981at Temperature of 40 degree C, two cycles of (12+12) hours Each 2007)	Yes	
Dry Heat Test : in accordance with IS:9000 (part 3/sec.5) 1977 (reaffirmed 2007) at 55 degree C for16hrs	Yes	
Cold Test: in accordance with IS:9000 (Part2/Sec.4) 1977 (Reaffirmed 2007) at -10 degree C for 4 hrs.	Yes	
Availability of the Type Test Report from Central Govt./NABL Accredited lab covering all technical requirements.	Yes	
UPS Make	Eaton, TMIEC, Socomec, Schneider, RS Power, Emerson	
Battery Make	Exide, Amarraja, Rellicel, HBL	

2.1 CNC Off-line Simulator (Sinumerik /Fanuc/ Heidenhain) – 1 Teacher + 15 Students

SL No	Specifications	Bidder's Specification **[Ref. Foot note]	Reference Page Number / Section Number of Catalogue/ Folder name/ Remarks
	CNC Off-line Simulator		
1	**Application & Features**		
1.1	The offline CNC simulator module shall be a complete setup of hardware and software based training solution for CNC machining. The simulator shall be capable of simulating operation of the CNC controller in real life environment. Operation and handling similar to the real life machine controller shall ensure that a CNC program generated with the setup (hardware and software) shall be able to run on the CNC machine.		
1.2	The set-up shall be suitable for conducting training on CNC milling and turning machines with Fanuc 31i T M, Sinumerik Operate with Shop turn & Shop mill, HEIDENHAIN TNC 640-M, Fagor 8055 Turn+Mill controller families/ types and up-gradable to latest versions. The software must be able to run independently, especially on PCs without machines.		
1.3	**Console** The system shall have a On Screen Soft Control keyboard operated via Mouse or Touch (with interchangeable key modules) for the respective controller / family / type), that could make the operation easier & bring a higher didactic value by its similarity to the original controller. The training console should be designed for milling and turning machines, including machine controller base unit with USB interface.		
1.4	**Didactic Software** The Interactive didactic software shall be user-friendly, efficient, and secure all-round solution for computerized training. The software shall be capable of • Broadcasting and sharing of the Screen with the classroom • Controlling access • Evaluation of work carried out by the students • Perform in an interactive whiteboard environment		
1.5	PC & Networking Compatibility: OS- (Latest MS-Windows Operating system): TCP/IP network		
2	**Off-line Training software (1 Teacher + 15 students)**		
2.1	**License for following controller families / types (Teacher with Smart Interactive Touch Panel)** • Sinumerik Operate 828D • FANUC Series 31i • HEIDENHAIN TNC 640 M • Fagor 8055		

2.2	**Following features for touch panel min.60 inches.** • Smart touch technology • write, save and e-mail • Interactive white board and Pen • Mobile connectivity • 4K UHD Resolution or better		
2.3	**With 16 seats 3D-Graphic Simulation Software Turning /Milling 3D graphic simulation software licenses (Note** : Shall be compatible with above mentioned controller families / types**)**		
3	**Controller Families/Types**		
3.1	Fanuc 31i Turn +Mill		
3.2	Sinumerik 828D Turn+ Mill		
3.3	Heidenhain (iTNC 640) Mill		
3.4	Fagor 8055 Turn + Mill		
4	**CNC Simulator**		
4.1	The Simulator shall be Industrial type with onscreen soft key interchangeable keyboard facility for the specified "Controller Families / Types".		
4.2	Must have on screen soft key industrial type interchangeable programming Module. (Digitizer type not accepted)		
4.3	Programming function keys should be vertically placed to get the feel of industrial type programming panel and should exactly match to industrial machine control panel.		
4.4	Shall have feed override knob (select feed from 0-120%)		
4.5	Mode Select Key (select Modes: i/e Reference, EDIT, AUTO, MDI, JOG, INC mode)		
4.6	USB Interface for PC connectivity.		
4.7	On-screen display of control-specific and machine keyboard		
4.8	Operation is performed using a mouse or a touch on the screen monitor		
4.9	Easy and quick to configure		
4.10	Hardware to control the machine with axis buttons, feed override switch etc.		
5	**Details Specification of CNC Offline programming Software**		
5.1	Offline programming station shall provided with on screen interchangeable key-modules for the respective Controller family / Type.		
5.2	Graphicsimulation in 2D/3D graphics with zooming facility.		
5.3	Detailed error message about programming faults / errors.		
5.4	Language: English		
5.5	Program generate: Main programs, subroutines, tool data register and work piece management shall be auto stored		
5.6	Control system: PC based control for Turning and Milling		
5.7	Operations: Linear, circular, helical and thread interpolation, Pocket, etc.		
5.8	Operating System Should support on Latest MS windows operating system.		
5.9	License Type : Perpetual		

5.10	Programming "C" axis on CNC lathes		
5.11	Programming "4th" axis on CNC milling		
6	**Following cycle shall be supported on FANUC 31i or Latest -Turning Controller**		
6.1	Finishing cycle		
6.2	Turning cycle		
6.3	Facing cycle		
6.4	Pattern repeating		
6.5	Boring Cycle		
6.6	Grooving cycle		
6.7	Threading cycle		
6.8	Cancel drilling cycle		
6.9	Drilling cycle		
6.10	Tapping cycle		
6.11	Reaming cycle		
6.12	Reaming cycle		
6.13	End Sub program		
7	**Following Cycle shall be supported on FANUC 31i or Latest - Milling Controller**		
7.1	Chip Break drilling cycle		
7.2	Cancel drilling cycle		
7.3	Drilling cycle		
7.4	Drilling cycle with dwell time		
7.5	Deep hole drilling cycle		
7.6	Taping cycle		
7.7	Reaming cycle		
7.8	Drilling cycle with spindle stop		
7.9	pack drilling cycle		
7.10	Drilling cycle with program stop		
7.11	Reaming cycle with dwell time		
7.12	Scale / Mirror factor		
7.13	Coordinate system ON		
7.14	Coordinate system OFF		
7.15	Call Sub programming		
7.16	End Sub program		
7.17	Macro Programming		
8	**Following cycle shall be supported on SINUMERIK 828D or latest Turning Controller**		
8.1	Drilling, centring		
8.2	Drilling, counter boring		
8.3	Deep-hole drilling		
8.4	cycle (deep-hole drilling)		
8.5	cycle (rigid tapping without using a floating tap holder)		
8.6	Rigid tapping without using a floating tap holder		
8.7	Tapping with floating tap holder		
8.8	Recessing cycle		
8.9	Undercutting cycle		
8.10	Stock removal cycle		
8.11	Thread undercut cycle		
8.12	Thread cutting cycle		
8.13	Chaining of threads		
9	**Following cycle shall be supported on SINUMERIK 828D or latest Milling Controller**		
9.1	Contour milling		
9.2	Surface milling		
9.3	Drilling, centring		

9.4	Drilling, counter boring		
9.5	Deep-hole drilling		
9.6	Rigid tapping without using a floating tap holder		
9.7	Tapping with floating tap holder		
9.8	Hole circle		
9.9	Thread milling		
9.10	Slots on a circle		
9.11	Rectangular pocket milling cycle		
9.12	Circular pocket milling cycle		
9.13	Special rectangular pocket milling cycle		
9.14	Special circular pocket milling cycle		
10	**Following cycle shall be support on HEIDENHAIN TNC 640 – Milling Controller**		
10.1	Drilling / Thread Cycle for Drilling, Tapping and Thread Milling		
10.2	Pocket /Studs/Slots cycle for Milling pockets, Studs and Slots		
10.3	Pattern cycle for Machining Holes patterns		
10.4	SL-Cycle		
10.5	Multipage Cycle for Multipass milling		
10.6	Coordinate transformation cycle for Coordinate transformation		
10.7	Special Cycle for well type, program calls, oriented spindle stop.		
10.8	Line :L		
10.9	Chamfer : CHF		
10.10	Circle Center :CC		
10.11	Circle : C		
10.12	Circle by Radius : CR		
10.13	Corner rounding : RND		
10.14	Free Contour Programming : FK		
10.15	Window Oriented, Modern user interface.		
10.16	Drilling / Thread Cycle for Drilling, Tapping and Thread Milling		
10.17	Pocket /Studs/Slots cycle for Milling pockets, Studs and Slots		
10.18	Pattern cycle for Machining Holes patterns		
10.19	SL-Cycle Cycle for complex contours		
10.20	Multipage Cycle for Multipass milling		
10.21	Coordinate transformation cycle for Coordinate transformation		
10.22	Contour Milling Cycles		
10.23	Contour Finishing Depth Cycles		
10.24	Contour Finishing Side Cycles		
10.25	Mirroring		
10.26	Rotation		
10.27	Helix		
10.28	Datum Setting		
10.29	SL Cycles		
10.30	Horizontal and vertical control via soft keys like the industry control Heidenhain controller.		
11	**Following cycle shall be support on Fagor8055 – Milling Controller**		
11.1	Positioning 1		
11.2	Positioning 2		
11.3	Surface Milling		
11.4	Grooving		
11.5	Profile 1		

11.5	Profile 2		
11.6	Profiling		
11.7	Profile Pocket 2D		
11.8	Rectangular Boss		
11.9	Round Boss		
11.10	Simple Pocket		
11.11	Rectangular Pocket		
11.12	Circular Pocket 1		
11.13	Circular Pocket 2		
11.14	Boring 1		
11.15	Boring 2		
11.16	Reaming		
11.17	Tapping		
11.18	Drilling 1		
11.19	Drilling 2		
11.20	Drilling 3		
11.21	Centre Punch		
12	**Following cycle shall be support on Fagor8055 – Turning Controller**		
12.1	Positioning Cycle1		
12.2	Positioning Cycle 2		
12.3	Turning Cycle 1 / 2		
12.4	Facing Cycle 1 / 2		
12.5	Profiling Cycle 1		
12.6	Profiling Cycle 2		
12.7	Profiling Cycle XC		
12.8	Profiling Cycle ZC		
12.9	Threading Cycle 1		
12.10	Threading Cycle 2		
12.11	Threading Cycle 3		
12.12	Thread Repair Cycle		
12.13	Taper Cycle 1 /2 /3		
12.14	Rounding Cycle 1		
12.15	Rounding Cycle 2		
12.16	Grooving Cycle 1 / 2		
12.17	Grooving Cycle 3 / 4		
12.18	Cut-off Cycle		
12.19	Drilling Cycle		
12.20	Tapping Cycle		
12.21	Multiple Drilling		
12.22	Multiple Tapping		
12.23	Multiple Slot Milling		

SL No.	Descriptions	Quantity	Bidder's Response
13	**SPECIFICATIONS/ FEATURES OF VIRTUAL CNC MACHINE SIMULATION SOFTWARE WITH MODULAR CNC LATHE KIT, CNC 3AXIS MILLING KIT AND CNC 4TH AXIS MILLING KIT**		
13.1	**VIRTUAL CNC MACHINE SIMULATION SOFTWARE**	**15+1 Users**	
13.2	**MODULAR CNC LATHE KITS**	**2 Sets**	
13.3	**MODULAR CNC 4 AXIS MILLING KITS**	**2 Sets**	

13.1 VIRTUAL CNC MACHINE SIMULATION SOFTWARE

Sr. No.	Description of Material Specification and Features:-	Bidder's Specification **[Ref. Foot note]	Reference Page Number / Section Number of Catalogue/ Folder name/Remarks
1	CNC machine simulator must simulate the entire CNC machine VMC or CNC Lathe and its CNC console keyboard together in one screen. CNC systems to be available for Turning and milling FANUC, Haas ST, SINUMERIK 840D T, 828D, FAGOR 8055, MITSUBISHI M70, latest version.		
2	Machine simulation must show the entire CNC machine, VMC or CNC Lathe, Part, work holding, Cutting tool, turret/ATC		
3	Student must be able to use software interactively using the virtual CNC console keyboard with a mouse or touch screen.		
4	Student must be able to select a X/Z – axis on CNC Lathe & X/Z/Y/C/A - axis on CNC VMC. As per choice.		
5	In VMC mode. Must allow selection of replicas of Fanuc. Siemens, Mitsubishi, Fagor CNC console panels as listed above.		
6	In CNC lathe mode. Must allow selection of replicas of Fanuc, Siemens, Mitsubishi, Fagor CNC console panels as listed above.		
7	Must seamlessly interface and integrate with the interactive CNC programming software to run the programs internally.		
8	Must simulate Fanuc, Siemens, Mitsubishi, Fagor CNC console panels exactly, with same keyboard layout and logic.		
9	Software must have operation modes, memory, edit, MDI, Jog, and incremental jog.		
10	Software must have keys for emergency stop, edit lock, cycle start & stop, reset.		
11	Software must have keys for spindle start/stop, tool change, coolant on/off and program editing soft keys.		
12	Software must have controls for feed rate override, spindle speed override, MPG.		
13	Alarms must be displayed on cycle start without closing door, on tool collision, axis over-travel.		
14	Entire VMC or CNC lathe machine must be simulated in 3D graphics with rotation, zoom, pan of machine views.		

15	Must simulate G-codes and M-codes, canned cycles, subprograms.		
16	Must simulate part mounting, tool offsets and work offsets setting by methods used in industry.		
17	Simulation must show flow of chips, coolant, with realistic sounds of machining operations.		
18	Video recording, storage and replay of simulation must be possible for off-line skill assessment.		
19	Must be able to select tools from database and insert them in required turret position		
20	Must be able to add turning, Grooving, Threading, Drilling tools for lathes.		
21	Must be able to add face mill, end mill, drill, centre drill, tap, boring tools for VMC.		
22	CNC lathes must be configurable with different turret capacity, Front or rear turret.		
23	On-screen measurement of part must be possible for tool offsets setting and inspection		
24	Must support touch screen monitors for realistic learning,		
25	Must support dual monitors. CNC console on one screen and machine on other screen. System for assessment of learning outcomes.		
26	Instructor must be able to assist students via remote view or take control of a student's PC		
27	Students and instructors must be able to login with unique user name and password.		
28	Instructors must be able to add own exercises and send & receive exercises to/ from students.		
29	Software must have test management facility with automatic marking and storage of marks.		
30	Must have test questions library management facility for test paper management.		
31	Test questions must be configurable: multiple choice, fill-in-blanks, long answer type.		
32	Instructor must be able to add, modify or delete questions in the library at any time.		
33	HELP Menu: This section must have details/description about Lathe & Mill Machines, minimal construction of same, various parts & tools, should follow the parameters of syllabus set by ITI curriculum.		

	Multimedia Teach ware/Course ware for CNC Technology: - The software should enable teaching of CNC Turning and CNC milling technology aligned with CTS syllabus prescribed by DGT in a highly effective manner through multimedia such as Videos, animation, sound, pictures, 3D interactive graphics and text explanations. Software must use Video clips from actual machines, cutting tools and machining situations in industry to enable the student to interactively learn and understand how CNC machines are used in industry and establish a link between theory and practice.		

13.2 MODULAR CNC LATHE KIT, AND CNC 4TH AXIS MILLING KIT

The system should be absolutely in a CKD KIT form & should be modular system, which should allow for countless configurations and CNC applications. The slides of the machines must be equipped with 2A stepper motors. Ideal for the reproduction of work pieces and processing of 3D solid models.
It should be assemble and de-assemble with 2-axis turning, 3-axis milling and 4-axis milling of following specification:

(13.2) MODULAR CNC LATHE KIT	**SPECIFICATION**	**Bidders Specification as per catalogue**
	3-Jaw-Chuck, precision live centre, tool post and turning tool. Machinable materials: wood, acrylics, wax, non-ferrous and soft metals.	
Number of Axis:	2	
Drive:	Steppers,2A,1.8°Thread	
Accuracy:	0.05 mm	
Max. positioning speed:	300 mm/min	
Travel X/Z	50 mm/145 mm (expandable)	
3-Jaw-Chuck	Clamping capacity 1.8 - 56 mm inside, 12 - 65 mm outside	
Head spindle:	4000 U/min	
Controller Technical Specifications:		**Bidders Specification as per catalogue**
The pre-installed software allows for loading, manipulating and processing of ISO standard g-code files (RS-274). It also offers an editable tool table and tool path simulation. in addition to the manual also a training book for introduction to CNC and g-code programming is included. Software and Drivers : Win (7, 8, 10) OSX (getestet bis OSX 10.15.x), Linux Connectivity : USB, Ethernet, WIFI (optional) Axes controllable: 4 (upgradeable to 6) furhter IOs: 6x input for (limit/end) switches, 1x E-stop, 2x relays, 0-10V control signal Micro steps 16 Board 1GHz CPU, 512MB DDR3 RAM, 4GB storage Power supply External, 110-240 V, 24 V, 5 A		

MODULAR CNC 4TH AXIS MILLING KIT	SPECIFICATION	Bidders Specification as per catalogue
NumberofCNCaxes:	04	
Drive:	Steppers, 2 A, 1.8°	
Accuracy:	0,07mm	
Max.positioningspeed:	300mm/min	
TravelZ/Y:	50 mm (expandable)/50 mm	
TravelX-axis:	145 mm (expandable)	
Increment Rotation Axis	(360°/3200)*0.5 = 0.05625°	
Incrementrotationaxis:	360°/800/4=0,1125°	
headspindle:	4000 rpm, with 1/8" collet	
Controller Technical Specifications:		**Bidders Specification as per catalogue**
The pre-installed software allows for loading, manipulating and processing of ISO standard g-code files (RS-274). It also offers an editable tool table and tool path simulation. in addition to the manual also a training book for introduction to CNC and g-code programming is included. Software and Drivers : Win (7, 8, 10) OSX (getestet bis OSX 10.15.x), Linux Connectivity : USB, Ethernet, WIFI (optional) Axes controllable: 4 (upgradeable to 6) furhter IOs: 6x input for (limit/end) switches, 1x E-stop, 2x relays, 0-10V control signal Micro steps 16 Board 1GHz CPU, 512MB DDR3 RAM, 4GB storage Power supply External, 110-240 V, 24 V, 5 A		
Raw material		**Bidders Specification as per catalogue**
Machinable Aluminium rods Center punched, ø12x100mm, pack of 15pcs Milling Foam Blocks Prototyping foam, medium density, approx. 24x 24x 50mm, pack of 30pcs Coloured acrylicplates, Castacrylic, suitable for milling, protective masking on both sides, 50X50x3mm, pack of 30pcs Resource Kit CNC Inclextra hand tools, tooling (end mills, turning tool), spare parts, gibs,var. screws, etc.		

13.4ALL IN ONE 3D PRINTER ASSEMBLY KIT WITH LASER ENGRAVING AND CNC CARVING	SPECIFICATION	BIDDERS SPECIFICATION AS PER CATALOGUE
Parameters		
Overall Dimensions	**285 * 285 * 318mm**	
Adapter Input	**100-240V, 50/60Hz, 1.8Amax**	
Adapter Output	**12V~6.5A**	
Main Material	**aircraft-grade aluminum**	
Operation Panel:	**3.5' LCD touch pad**	
3D Printing		
Nozzle Diameter	**0.4 mm**	
Layer Resolution	**0.05~0.3 mm**	

Nozzle Temperature	**190~260°C**	
Heated bed Temperature	**50~100°C**	
Forming Size	**X130 * Y130 * Z130mm**	
Applicable Materials	**PLA, ABS ,PC , FLEX**	
Printing Speed	**10~80mm/s**	
Laser Engraving		
Working Range:	**X130 * Y130mm**	
Laser Power:	**0.5W**	
Supported Materials:	**wood, paper products, some plastics, leather, etc.**	
CNC Carving		
Spindle idle Speed:	**12000rpm Max**	
Clamping Range of CNC Chuck:	**0~4mm**	
Size of Standard CNC Bit:	**3.175mm * 0.3mm * 30° flat bottom sharp cutter**	
Supported Materials:	**wood, plastics, PCB boards and most non-metallic materials**	

NOTE:	**Additional Terms and Conditions**
A	**Technical Compliance Statement.** The technical details with deviation statement. Technical detail should contain complete specification of goods/scope of related services/list of deliverables with all technical terms and conditions. Bidders have to confirm the Technical specifications. If there is any deviation(s), the same should be clearly specified in a separate sheet along with covering letter. If there is no deviation, nil deviation should be mentioned per line specification.
B	**Standard Printed Catalogue.** Compliance statement with respect to the technical specification mentioned in the offer to be submitted and compliance statement should be further specified by indicating the catalogue page no /para number/line no for each specification.
C	**List of customer with address and contact numbers.** List of customer with address and contact number to whom the tendered item supplied. Copy of minimum 3 purchase orders for having supplied in total order not less than the tendered quantity with Performance Certificate to be submitted during the last three years ending on 31.03.2025
**Important note: The bidder must provide exact and relevant input against the specified features having "numerical values" or" % values" or any" specific requirement" in the same format as specified in the tender document. Any response specifying Confirmed/Agreed/ Complied etc. shall be summarily rejected.	

2.3 10 kVA Online UPS with 60 mins Backup

Item Descriptions		**Bidder's Response**
Rating in KVA (KVA)	10KVA; Must be conforming to IEC 62040-3;	
Technology	IGBT-PWM within built Isolation transformer, external not allowed	
Input Power	Single phase 160V-260V sine wave, 50Hz	
Outputpower	Single Phase 230V +/-1% with alternative user set table setting of 230V+/-1% 50 Hz	
Backup time (Minutes)	60	
Minimum VAH (VAH)	12000	
Warranty for UPS (Years)	5	

Movable trolley for Batteries	Without trolley but with rack	
Warranty for battery	5	
Cabling 5meters for input and output	To be provided	
Paralleling kit for synchronizing	To be provided	
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 overshoot and Undershoot of output rated voltage	4	
Voltage Regulation from no load to full load (%)	</=3%	

3.1 Master Cam Software 1 Teacher + 15 Students

Mastercam 2025 Educational Pack : 15+1 licesnse

Design :

- Solid modeling
- Live surface modeling
- Quickly create and dimension live wireframe geometry
- Read/write IGES, DXF, SAT, Parasolid, EPS, & more
- Read native AutoCAD, SOLIDWORKS, Solid Edge, & more

Advance Mill

- CAD File Change Recognition
- Part and toolpath nesting
- Fully associative toolpaths
- In-process stock model
- Dynamic Motion toolpaths (2D)
- Feature Based Machining
- Automated Feed Rate Optimization
- Contouring, pocketing, and drilling
- 2D High Speed Machining
- 3D contour cutting, trimming, and remachining
- On-screen toolpath verification
- Fast, easy tool management
- Machine and control definition
- Machine Simulation
- Tombstone support
- Engraving
- Raster to Vector image conversion
- Single and limited multisurface roughing
- Single and limited multisurface finishing
- 3+2 axis positioning and rotary axis substitution
- Dynamic Motion toolpaths (3D)
- Full multisurface& solid roughing
- Full multisurface& solid finishing

- Full multisurface& solid “cleanup” machining
- Full multisurface& solid High Speed Machining
- Full multisurface& solid optimized roughing
- Full multisurface& hybrid finishing

Lathe :

- Streamlined “Quick Toolpath” programming
- Intelligent ID and OD roughing
- Dynamic roughing
- Easy finishing
- Optimized facing
- Grooving
- Threading
- Canned cycle support
- Automatic gouge checking
- Boring, drilling, and point-to-point machining
- Machine directly on a solid
- Chuck, part, steady rest, and tailstock collision check
- Fully associative toolpaths
- Machine and control definition
- Face and cross contour
- Face and cross drilling
- 3D C-axis contour machining
- Plunge turning

Multi axis and MT

- Multi axis Pocketing Toolpaths
- 3-to-5 Axis Toolpaths
- Rotary Toolpaths
- Swarf Toolpaths
- Rotary Advanced Toolpaths
- Deburr Toolpaths
- 3+2 Automatic Roughing Toolpaths
- Swarf Milling Toolpaths
- Unified Multiaxis Toolpath
- Triangular Mesh Toolpaths
- Flow Toolpaths
- Multisurface Toolpaths
- Multiaxis Linking
- Curve Toolpaths

HIGH END COMPUTER FOR CAD/CAM LAB – 15 +1

OS - WIDOWS 11 OR HIGHER 64 – BIT PROFESSIONAL
PROCESSOR- INTEL OR AMD 64 BIT PROCESSOR,2.4 GHZ OR FASTER i 7
Memory – 8-12 GB
Video – OPEN GL 3.2 AND OPENCL 1.2 SUPPORT WITH 1 GB MEMORY.
MONITOR – 1920X1080 RESOLUTION
STORAGE – HARD DRIVE WITH AT LEAST 20 GB FREE USB AND/OR DVD DRIVE
NVEDIA GRAPHICS
MONITOR SHOULD BE HD WITH SUPPORT TO OPENGL 3.2 SUPPORT
COMPATIBLE FOR RUNNING MASTERCAM SOFTWARE.

4.1 FDM Technology 3D Printer

Item Name: FDM Technology 3D Printer – 1 No.		
Parameter	**Specification**	**Complied (Y/N)**
Technology:	Fused Deposition Modeling (FDM)	
Capability	Machine should be capable producing strong functional parts in engineering grade thermoplastics for various applications like functional prototyping, Tooling for Forming/ Casting applications, end use parts etc.	
Build Volume (W × D × H):	Minimum: 250x250x250 mm or better.	
System Size and Weight:	1,600 x 864 x 700 mm (64 x 34 x 28 in.), 200 kg or higher.	
Electrical	Power Supply Input: 100-240 V AC, 50/ 60 Hz230 V @ 2 A Power Supply Output: 24 V DC, 350 W	
Bed Temperature	120 ^{O}C Maximum	
Layer Thickness	Approx. 0.1 mm to 1 mm	
Accuracy:	100 to 400 microns	
Software:	Slicing and Control Software: Software suppled must be from the same OEM and should be compatible with Windows 8 or higher version.	
	Software should support file types such as G -code, STL/OBJ/3MF/STP/IGS CAD package etc.	
	Software shall have options for user to edit the internal structure of each layer and/or group of layers of the CAD model.	
	Software shall be able to generate different internal customizable build styles (honeycomb to solid) along various regions/segment of the part along the same cross section.	
	Software shall have ability to pre-program pauses on any layer of the generated slice file to add metal inserts, change color of filament.	
	Software should have preset libraries of standard metal inserts and should auto change circular faces to match the diameter of the inserts as selected by the users.	
	The software should allow the user to create parts with optimal infill to vary between strength and rigidity. The user should be able to select a body or a face of any feature of a subassembly to vary between strength and rigidity.	
	Life time free update for the software	
Display Screen	Touch Screen, 7 inch or more	
Connectivity	Wi-Fi, LAN, USB Port	
Structure	Powder coated with internal LED	
Leveling	Mesh-levelling with Flatness Detection	
Print Technology	Fused Deposition Modeling (FDM)	

Print Head System	Dual Extruder System (Dual extruder system with one nozzle for main material and one for support creation).	
Filament Diameter	1.75 mm proprietary filament.	
Filament Detection Sensor	Yes – Automatic filament presence and run-out detection.	
Extruder Type	Single material + soluble support required for complex shape.	
Print Head Travel Speed	Should be changeable up to 60 mm/s	
Build Plate	Flexible for ease of removal	
Chamber Temparature	Should be able to reach up to maximum 110 Degree Celsius	
Build Plate Levelling	The printer should be capable to do Auto Probing for Bed levelling	
Supported Materials	Should support Materials like: ABS, ASA, PLA,TPU, Water Soluble Support Material, ABS Based Carbon composite material etc.	
Nozzles	Dual Wear Resistance Nozzles	
Nozzle Diameter	The Parameters should be pre fed in the slicing software & should not need to change nozzle to print different layer height. Standard nozzle diameter size should be 0.4mm only.	
Max Nozzle Temperature	The nozzle should reach up to 300 Degree Temperature	
Noise Emission (Acoustic)	The printer should be available with < 50 dB (A) when building	
Operating Ambient Temperature	The printer should be able to perform at 15-30 Degree Room temperature and 10-90% relative humidity non-condensing	
Part accuracy	Parts are produced within an accuracy of +/- .020 mm or +/- .002 mm/mm, whichever is greater.	
Machine Calibration	The machine shall automatically calibrate nozzle and build platform in X, Y and Z axis before the start of each job.	
	Auto-calibration	
Monitoring	Live camera for tracking and monitoring	
Certification	Product should be BIS, WPC, CE, EU, ROHS certified. Certificates to be provided.	
	ISO 9001: The bidder or the OEM of the offered product must have ISO 9001 Certification.	
Warranty	5 Years comprehensive for all the supplied items	
Operational and Facility Requirements	Machine compatible of working in office/lab environments setup. The system should be non-laser based and not emit the hazardous radiation.	
	Noise level of the machine at any point (idle/operational) should be less than 46dbA. Relevant documentation/test results to be provided.	

	Contaminants released during the operation of the machine should not be greater than 3ppm at any point of operation. Relevant documentation/test results to be provided.	
	Vendors must also indicate the requirements of other mandatory facility requirements like vibration free flooring, anti – static environment etc.	
Supported 3D CAD Files Types	STL/OBJ/3MF/STP/IGS/CAD formats from Designing Software	
Other Features		
IoT Features: Remote dashboard and live camera feed. (When displayed on larger screen, students can better understand parameters and see live printing)		
Self-cleaning nozzle: (Improves the quality of printing)		
Inbuilt material storage.		
Smart filament sensor: Clogging and Material run out indication.		
Humidity and Temperature monitored filament dispenser.		
Materials To Be Provided		
Total 3 KG of Build Material of different type supportated by the machine along with Soluble support materials to be provided along with the printer.		
Support Removable Cleaning Station To Be Supplied		

4.2 MSLA (Masked Stereolithography) 3D Printer

Item Name: MSLA (Masked Stereolithography) 3D Printer – 1 No.		
Parameter	**Specification**	**Complied (Y/N)**
Technology:	LCD-based MSLA (Masked Stereolithography)	
Printer Type:	Professional Resin 3D Printer	
Condition:	New, unused, latest model.	
Build Volume:	218 × 123 × 235 mm (X × Y × Z) or higher.	
XY Resolution:	19 microns or better.	
Z Axis Resolution:	10 microns or better.	
Layer Thickness:	0.01 – 0.30 mm it should be adjustable.	
LCD Screen:	12K Monochrome LCD	
LCD Resolution:	11,520 × 5,120 pixels or higher.	
Screen Size:	~10-inch class or more.	
Light Source:	High-uniformity UV LED Matrix (ParaLED or equivalent)	
Wavelength:	~405 nm or higher.	
Z-axis Mechanism:	Dual linear rails with precision lead screw	
Build Platform:	CNC machined metal platform	
Vat:	Metal resin vat compatible with FEP/nFEP film	
Printing Speed:	Up to 70 mm/hour (depending on resin and settings parameters)	
Accuracy & Repeatability:	High precision suitable for engineering, dental, jewellery, and prototyping applications.	
Slicing Software:	compatible slicer software required.	
Supported File Formats:	STL, OBJ or others.	
Operating Systems:	Windows	

Connectivity:	USB, Ethernet	
User Interface:	Touchscreen LCD panel	
Power Supply:	220–240V AC, 50 Hz	
Operating Temperature:	Standard room conditions	
Material	Minimum 5 KG Of Different Resin based Material	
Warranty	5 Years comprehensive for all the supplied items	
Post Processing Station	UV Curing Chamber & IPA Wash Station to be supplied.	

4.3 3D Scanner

Item Name: 3D Scanner (1 Nos).		
Parameter	**Specification**	**Complied (Y/N)**
Scanning Technology	Structured White Light	
Camera System	Dual cameras, minimum 5 MP resolution (2592 × 1944)	
Scanning Modes	Rotary table scanning, marker-based scanning, basic/free scanning mode	
Scanning Zones	Three zones: Large (L), Medium (M), Small (S)	
Field of View (L)	Approx. 550 × 340 × 360 mm or better.	
Field of View (M)	Approx. 320 × 210 × 200 mm or better.	
Field of View (S)	Approx. 140 × 90 × 80 mm or better .	
3D Resolution	Up to 0.05 mm (depending on scanning zone)	
Accuracy	Up to 0.04 mm (depending on scanning zone)	
Texture Capture	True color texture scanning supported	
Output File Formats	OBJ, STL, ASCII, PLY, PTX, RV3D or more	
Interface	USB 3.0, USB 2.0 (turntable), HDMI	
Power Supply	100–230 V AC	
Operating Temperature	+10°C to +35°C	
Scanner Dimensions	Approx. 190 × 415 × 110 mm or higher.	
Scanner Weight	Approx. 1.7 kg or lower.	
Turntable	Motorized rotary turntable included	
Software	Dedicated scanning and post-processing software with license.	
Warranty	Minimum 5-year comprehensive onsite warranty	

**** The quantity specified in this RFP is subject to variation of up to ±25%, depending upon the actual requirement of DTE&T.**

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**: CoE wise 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 of each 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 Advanced CNC Machining and Manufacturing at Govt. ITIs". [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 Advanced CNC Machining and Manufacturing at Govt. ITIs" [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:

FIN-2

Annexure

Bill of Quantity (BoQ)

(on Bidders Letterhead)

Name of the Bidder: _____

Sub: RFP for establishment of Centre of Excellence in Advanced CNC Machining and Manufacturing 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 Rs.42,00,000** (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, 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:

******* End of the Document*******