

NIELIT CALICUT

(Autonomous Scientific Society of Ministry of Electronics & Information Technology, Govt. of India)

NIT Campus Post, CALICUT-673 601, KERALA

Email: purchase@calicut.nielit.in Web: http://nielit.gov.in/calicut Phone: 0495-2287266

LIMITED TENDER ENQUIRY

Ref. No.: 2(1233)/2020-21/3DPAM/ADSDS

Date: 19.03.2021

To

DUE DATE: 30.03.2021

TENDER OPENING DATE: 31.03.2021 TIME: 12:00 PM

- 1. Quotations are invited for the supply of the items as per Annexure-I.
- The quotations duly SIGNED, SEALED AND SUPERSCRIBED ON THE ENVELOPE WITH THE REFERENCE No. AND DUE DATE, should be addressed to the undersigned so as to reach on or before the due date stipulated above. Quotations received after the due date will not be considered.
- 3. Quotation will be opened at the above address on the date and time mentioned above. If this day becomes a holiday, the same will be opened on the next working day. The Tenderer or his authorized representative can be present during tender opening.
- 4. The quotations should be valid for acceptance for a period of sixty days from the due date
- 5. Quotations will not be accepted by Fax, Email or any such electronic data transfer form.
- 6. The quotations should be for goods exactly conforming to our requirements and specifications.
- 7. Relevant literature pertaining to the items quoted with full specifications and drawings, if any should be sent along with the quotations, wherever applicable. Samples, if called for, should be submitted free of charges and collected back at the supplier's expenses.
- 8. Copy of Manufacturing licence, Principal or Authorized Distributor/Dealer Certificate, and Proprietary Certificate, as applicable, should be enclosed.
- Quotation should be for free delivery at our Centre and should clearly specify the delivery period. If delivery quoted is Ex-Godown/Consignor Station, delivery charges consisting of freight, packing & forwarding charges, insurance, etc. should be indicated separately. Goods should be supplied duly carriage paid and insured.
- 10. GST Registration Number of NIELIT Calicut is: **32AAATD0315M1Z6**. GST or any other taxes may be charged as per the rates applicable to Scientific/Educational institutions.
- 11. Security Deposit @ 3% of the Purchase Order/Invoice value shall be retained, in case order/contract value exceeds Rs.1,00,000/- (Rupees one lakh), which will be released after the expiry of warranty period.
- 12. Goods shall not be supplied without an official purchase order.
- 13. Payment: Payment will be made after completion of supply, installation/assembly and commissioning of the items covered by the order along with necessary spares supplied to the entire satisfaction of NIELIT CALICUT. Payment against invoices shall normally be made within 30 days of receipt and acceptance of equipment/materials at our office. No advance payment will be made under any circumstance.
- 14. Incomplete quotations and quotations which do not comply with all the above instructions are liable to be summarily rejected.
- 15. NIELIT CALICUT does not bind itself to accept the lowest or any such quotation and has the right to accept or reject whole or any part of tenders or a portion of the supply of goods without assigning any reasons. No correspondence in case of rejected tenders will be entertained.
- 16. The Tenderer shall submit EMD/Bid Security Declaration, as given in Annexure-II.

Yours faithfully,

Purchase In-Charge For Executive Director

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Encl: Annexure

ANNEXURE-I

| Your | Quotation No. | Barting Control of the Control of th |
|------|---|--|
| 1 | Description of item(s) | Additive Design Skill Development System |
| 2 | Specifications & Quantity | : 1 No. As per Specifications attached. |
| 3 | Price per unit in Rs. (in figures & words) | |
| 4 | Total Price in Rupees (excluding tax) (in figures & words) | |
| 5 | Delivery Period | |
| 6 | Terms of Delivery | |
| 7 | Taxes, Duties & any other statutory levies or charges | |
| 8 | Transportation, Insurance, Packing & Forwarding charges, if any | |
| 9 | Discount/off etc., if any | |
| 10 | GST Registration No. | |
| 11 | Payment Terms | |
| 12 | Validity of Tender | |
| 13 | Warranty | |
| 14 | EMD Amount and Payment details | |
| 15 | Bank Account No. with IFSC Code | |
| 16 | Any other remarks | |
| 17 | Signature of the Tenderer with Name and Date | |
| 18 | Address with Email ID & Mobile No. | |
| 19 | Central Public Procurement Portal (www.eprocure. gov.in) Registration, Email login ID | |

- <u>NB:</u> (1) The prices quoted and Taxes charged should be Academic/Educational Prices/rates, wherever applicable.
 - (2) Enquiry for the above items and specifications can also be downloaded from our website http://nielit.gov.in/calicut or www.eprocure.gov.in
 - (3) Please register at www.eprocure.gov.in and intimate login details without fail. Watch website for regular updates.

19/03/21

Additive Design Skill Development System for FS Prime – 3DPAM List of items (Pl ref detailed specifications attached)

| Sl. No | Item Description | Description | Tasks | Complied (Yes/No) |
|--------|---|--|---------------|-------------------|
| | Additive Design Solutions for Research and Development with 3 Industry Relevant Research Problems (Annexure A) | Perpetual Floating license with 3-year TECS | 1 | |
| | Additive Design Solutions for Academic Teaching and Skill Development with 5 Capstone Projects. (Annexure B) | Term License for 3 years | 15 or more | |
| | Additive Engineering Workshop with 5 days of Training and Content | Online/Onsite Hands On Training for NIELIT Staff | 1 | |

Annexure A

| Mechanical Topology Optimization | Complied (Yes/No) |
|--|---|
| Mechanical Topology Optimization | |
| Product Design Model Preparation, AM Build Preparation and Simulation | |
| | |
| 1D, 2D and 3D continuum and structural elements, rigid body representation | |
| Static Transient dynamics Modal Response spectrum Harmonic Random Vibration Acoustics Explicit dynamics Hydrodynamics Multibody dynamics | |
| Linear and nonlinear elastic Viscoelastic Rate-dependent and rate independent plasticity | |
| | Model Preparation, AM Build Preparation and Simulation 1D, 2D and 3D continuum and structural elements, rigid body representation Static Transient dynamics Modal Response spectrum Harmonic Random Vibration Acoustics Explicit dynamics Hydrodynamics Multibody dynamics Multibody dynamics Linear and nonlinear elastic Viscoelastic Rate-dependent and rate independent |

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| | Geomechanical Gaskets Composites |
|--|--|
| Interaction Model | Linear and nonlinear contacts Joints |
| Fracture Models | SMART cohesive zone XFEM |
| Advanced Solver Technologies | Nonlinear adaptivity Cyclic symmetry Submodeling Substructuring (CMS) Inverse analysis Multidimension modelling |
| Constraints for Additive Manufacturing | Manufacturing Shape Controls Member Sizing Control Symmetry Controls AM Overhang Controls |
| Organic Modelling after Optimization | STL CAD |
| No of Cores | 16 or better |
| Automatic Geometry Disfeaturing Tools | Required |
| Tools required | Geometry Preparation Tools Design of Experiments Composites Pre and Post Processing Material Database Materials Homogenization Topology Optimization Rigid Body Dynamics Fatigue Analysis Solve Management |

Annexure B

| Additive Design Solutions for Academic | Teaching (15 or more Licenses) | |
|--|---|-------------------|
| Specify Name of Software and version no | | Complied (Yes/No) |
| Software and UI Consolidation for FEA and Optimization | Mechanical Topology Optimization Product Design Model Preparation, AM Build Preparation and Simulation | |
| FE Based Topology Optimization | | |
| Elements | 1D, 2D and 3D continuum and | |

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| | structural elements, rigid body representation | |
|--|--|--|
| FE Analysis types | Static Transient dynamics Modal Response spectrum Harmonic Random Vibration Acoustics Explicit dynamics Hydrodynamics Multibody dynamics | |
| Material Models | Linear and nonlinear elastic Viscoelastic Rate-dependent and rate independent plasticity Geomechanical Gaskets Composites | |
| Interaction Model | Linear and nonlinear contacts Joints | |
| Fracture Models | SMART cohesive zone XFEM | |
| Advanced Solver Technologies | Nonlinear adaptivity Cyclic symmetry Submodeling Substructuring (CMS) Inverse analysis Multidimension modelling | |
| Constraints for Additive Manufacturing | Manufacturing Shape Controls Member Sizing Control Symmetry Controls AM Overhang Controls | |
| Organic Modelling after Optimization | STL CAD | |
| No of Cores | 4 or better | |
| Automatic Geometry disfeaturing Tools | Required | |
| Tools required | Geometry Preparation Tools Design of Experiments Composites Pre and Post Processing Material Database Materials Homogenization Topology Optimization Rigid Body Dynamics | |

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| Fatigue Analysi | S | |
|-----------------|-----|--|
| Solve Managem | ent | |
| | | |

Annexure C

Additive Design Workflow Capabilities

| Sl no | Description | | Complied (Yes/no) |
|-------|--|--|-------------------|
| 1. | Design for AM | CAD modelling Topology optimization Lattice and light weighting | |
| 2. | Build setup | STL file repair and geometry manipulation Part nesting and Support Generation Orientation guidance and wizards | |
| 3. | Process Simulation | Metal AM simulations Distortion compensation Build failure prediction | |
| 4. | Material analysis | Curated Material property database Grain morphology predictions Melt pool and Porosity prediction | |
| 5. | Data acquisition and Management | Traceability and full control of AM data Consolidate, control and share AM data across organization | |
| 6. | Part qualification | Design validation Structural and thermal analysis Document control and certification | |
| 7. | List of Capstone projects for teaching | (please mention the name of projects) | |

General Terms and Conditions

| Installation & commissioning | Installation and commissioning at NIELIT, Calicut | |
|------------------------------|--|--|
| Training | Training: Five days training for our staff | |
| General | Bidder must quote separately for establishing a self-contained facility. | |
| | Quote Educational pricing for the system & software | |

Sign of Authorized Signatory with Name & Seal

Jar.

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ANNEXURE-II

Undertaking for EMD (on the letterhead of Organization)

| | Date: |
|------------------|--|
| T) | |
| NIELIT NIT Ca | ecutive Director mpus P.O. ode — 673601 |
| | Subject: Undertaking as per GFR–2017, Rule 170(iii). |
| Dear Si | · , |
| We, the | undersigned, offer to supply in response to your |
| Tender | No |
| the sam | e. As a part of eligibility requirement stipulated in the said Tender documents, we hereby submit a declaration in lier |
| | est Money Deposit (EMD), as given below: |
| | |
| 1. | Our bid shall remain valid for 60 days from the date of submission and that we will not withdraw or modify our bid during the validity period. |
| 2. | In case, we are declared as successful bidder and an order is placed on us, we will submit the acceptance in writing within 7 days of placement of order on us. |
| 3. | In case, we are declared as successful bidder and an order is placed on us, we undertake, to submit a Security Deposit of 5% of the order value, as per terms stipulated in the Tender. |
| 4. | In case of failure on our part to comply with any of the above said requirements, we are aware that we shall be declared as ineligible for said Tender and/or debarred from any <u>future bidding process of</u> |
| 5. | NIELIT for a period of minimum two years. The undersigned is authorized to sign this undertaking. |
| | incerely, |
| | zed Signatory: nd Title of Signatory (with seal): |

Mobile No: