

**NATIONAL INSTITUTE OF TECHNOLOGY  
GOA -403401**

(Form to be used for purchases above Rs.2.5 lakh)

**Open Tender Enquiry**

Enquiry No: NITGOA/OT/MECH/2023-24/OW/ 403

Dated: 21/09/2023

(Complete Tender document is available on Tender website of NIT GOA and CPP Portal).

Enquiry No: NITGOA/OT/MECH/2023-24/OW/ 403

Date: 21/09/2023

**Important Dates**

To,	
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Event	Date	Time
Pre-bid Conference	-	-
Last Date of submission of quotation	<b>06/10/2023</b>	<b>1300 Hrs</b>
Technical Bid Opening date	<b>06/10/2023</b>	<b>1300 Hrs</b>
Financial Bid Opening date	<b>06/10/2023</b>	<b>1300 Hrs</b>

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

The tender document is available on:-

1. CPP Portal
2. Institute web site of NIT GOA.

Yours sincerely,

*(Signature)*  
**Registrar**

National Institute of  
Technology Goa

Encl:

- (1) Schedule of requirement, specifications, dates etc.
- (2) Bid document containing detail terms and conditions.

1. **Schedule of requirements**

Sl. No.	Name of Tools	No's Required
1	ANSYS Software Licence	01

2. **Specifications and allied Technical Details**

<b>Enclosed at Annexure – I</b>
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3. **Format of Quotation** (tick appropriate box)

It is a Single bid; please give all technical specifications and price bid in one envelope.

OR

It is a two-part bid with separate techno-commercial and price bids. Please see item 1.12 of instructions for method of bidding.

4. The bid envelope should be super-scribed with

<b>ANSYS Software Licence vide Enquiry No. NITGOA/OT/MECH/2023-24/OW/ _____ dated</b>
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5. Quotations should be valid for a period of 90 days from the closing date of the bid.

6. **Some important dates:**

i.	Pre-bid Conference:	Date: ____ - ____	Time: ____ - ____
ii.	Last date for receipt of quotation:		
iii.	Opening of techno-commercial bid:		
iv.	Opening of Financial bid:		

7. **Warranty** as applicable must be provided. (Certificate should be provided).

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- 8(a) **Excise Duty:** Please state applicable excise duty as a separate item.
- 8(b) **VAT/CST/GST:** The Institute is not authorized to give C or D form. CST/ VAT/GST should be charged according to applicable rates
- 8(c) **Entry Tax:** The State of Goa charges entry tax on all goods entering the State. Please include it in your quotation.
9. **Bid Security** (See Item 2.8 of instructions): **40,000/- (Rs. Forty Thousand Only).**
10. **Performance Security** (See Item 2.11 of instructions): **NA.**
11. Please go through the enclosed "bid document" carefully for other bidding instructions.
12. For clarifications if any, please mail to **prasenjit.dey@nitgoa.ac.in**

(Contd.)

**Form PPIM-1B**  
**[ Para 1.17 (ii) ]**

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1. **Instructions to the bidders:**

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Goa – 403401, from the intending bidders for supply of the goods/stores/ equipments/ services for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote the technical and financial bid separately in two separate envelopes digitally signed on the Technical bid/Financial bid for **ANSYS Software Licence** and their offer/rates in clear terms without ambiguity. EMD should be submitted online only.
- 1.3 The rates should be quoted both in figures and words.
- 1.4 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.5 In case the financial / technical bid opening day is declared a holiday for NIT GOA, then the bids will be opened on the appointed time on the next working date for NIT GOA.
- 1.6 There may be a pre-bid conference in the office of the Department as per schedule given under at the top of the document. NIT Goa for clarifying issues and clearing doubts, if any, about the specification and other allied technical details of the plant, equipment and machinery projected in the bidding document. The prospecting bidders may attend this pre-bid conference at the appointed date, time and place. In case the said date is declared a holiday for the NIT Goa, the pre-bid conference shall be held at the appointed time and place on the next working day.
- 1.7 If a prospective bidder requires any clarification in regard to the bidding documents, he may mail to **prasenjit.dey@nitgoa.ac.in** at least 02 days before the deadline for receipt of bids.
- 1.8 Bids should be submitted within the date and time mentioned above.
- 1.9 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.10 The bidder has to sign in full at all pages of the bidding document including all annexure and price bid failing which the bidder will be disqualified.
- 1.11 The Director NIT GOA and its successors reserves the right to reject any or all the tenders, wholly or partly or close the tender at any stage prior to award of contract without assigning any reason whatsoever.

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2. Conditions of the bid:

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges mentioned separately.
- 2.2 **The goods are required to be delivered at the indenting Department of NIT Goa, and must be delivered to NIT Goa within 10 days from the date of placement of the supply order .**
- 2.3 If insisted, samples shall be provided by the supplier at the entire cost and risk of the supplier. The installation of the equipment's and training cum demo should be provided.
- 2.4 The bid should remain valid for a period of 90 days from the date of publishing of bid.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in annexure below.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 The bid is to be accompanied with "Bid Security" (*Earnest Money*) for an amount stated in the enquiry, in the form of Account Payee Demand Draft, in favour of **Director, NIT Goa Fees Account** from any Commercial Bank with validity period of 30 days beyond the final bid validity period. The bid security shall be forfeited, if the bidder withdraws during the bid validity period.
- 2.9 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.10 Any liability regarding GST will be of supplier of products.
- 2.11 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Goa to recover liquidated damage from the firm at the rate of 0.5 percent of the value of undelivered goods per week or part thereof, subject to a maximum of 10 percent of the order value. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.12 The successful bidder may be required to execute a contract, where applicable.
- 2.13 Payment (*100 percent*) will be made by Account Payee Cheque/Bank Draft/PFMS, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.14 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT Goa shall be final.
- 2.15 The bid document/resultant contract will be interpreted under Indian Laws.
- 2.16 Any disputes arising out of this enquiry shall be dealt in the Goa jurisdiction.

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2.17 Proof of establishment of Firms/shop/business/ manufacturing unit etc. and Dealership certificate from the principals etc.

2.18 Proof of registration with any other central government organization (if any)

**Criteria for Technical evaluation:-**

- ❖ Valid EMD (Valid Signed and Stamped EMD Exemption certificate should be submitted for claiming EMD exemption)
- ❖ PAN Card (duly stamped and signed)
- ❖ Photocopy of GST Registration Certificate (duly stamped and Signed).
- ❖ Technical specifications of all the items. Failing to quote for all specification will result in disqualification in technical bid
- ❖ Signed and stamped copy of entire tender document.
- ❖ Signed and stamped copy of Annexure I.

**Criteria for Evaluation in Financial Bid:-**

- ❖ Financial bid will be opened of only those bidders who get technically qualified in technical bid.
- ❖ The financial bid shall be evaluated on the basis of the total lowest rates quoted for all the item together.
- ❖ The words in price bid such as extra will entitle for disqualification of bidders.
- ❖ Conditional bids will not be accepted and will be liable for disqualification.

**Documents required for processing of bills:-**

- ❖ Filling of PFMS Mandate Form.
- ❖ Filled bidder information sheet mentioned at the end of tender document.

  
T. Vard  
Registrar

National Institute of Technology Goa

Item Name: ANSYS Software Licence

Sr. No	Description	Qty	Vendor	
			Technical specification (YES / NO)	Remark
1	ANSYS Software Licence	01		

Note: The above format should be on letter head of the firm with the signature of Authorized Signatory

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Item Name: ANSYS Software Licence

Sr. No	Item Name	Rate	Quantity	Total
1	ANSYS Software Licence (for thirty task (30 task))		01	
			Total	
			Other Charges (if any )	
			Total	
			Taxes	
			Grand Total in Rs.	
<b>Grand Total in Words:</b>				

Note: The above format should be on letter head of the firm with the signature of Authorized Signatory

*T. Venkatesh*  
21/11/23



## PFMS Mandate Form

Sr. No	Details Required	Information
1	Name of Vendor/Supplier	
2	Date Of Birth / Date of Incorporation	
3	Father/Husband Name	
4	Aadhaar Number	
5	GST No	
6	PAN No	
7	Complete Address	
8	City	
9	Country	
10	State	
11	District	
12	PIN Code	
13	Mobile No.	
14	Telephone No.	
15	E Mail Address	

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16	Account Holder Name	
17	Bank Name	
18	Bank (Branch)	
19	Bank Address	
20	Account No.	
21	IFSC Code	
22	Swift Code	

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information I/we would not hold the user Institution responsible.

**Name:**

**Stamp/Seal & Signature of Vendor/Supplier**

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**Bidder Information Sheet**

1	Company Name	
2	company Registration Number	
3	Registered Address	
4	Name of Partners / Directors	
5	Bidder Type (Indian/Foreign)	
6	City	
7	State	
8	Postal Code	
9	PAN/TAN Number	
10	Company's Establishment Year	
11	Company's Nature of Business	
12	Company's Legal Status ( <i>Limited Company, Undertaking, Joint venture, Partnership and others</i> )	
13	Company Category ( <i>micro unit as per MSME, Small unit as per MSME, Medium unit as per MSME, Ancillary unit, Project Affected person of this company, SSI, Others</i> )	
14	Contact Person Name	
15	Date Of Birth (DD/MM/YYYY)	
16	Correspondence Email	
17	Designation	
18	Phone	
19	Mobile	

Note: If the information is not pertaining to the bidder, in third column he should specify as "Not Applicable"

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## Technical Specifications of ANSYS Software Licence

Sl.No	Specifications	Compliance (Yes/No)
1	<p><b>Capabilities in Geometric Idealization</b></p> <ul style="list-style-type: none"> <li>● Spring</li> <li>● Mass</li> <li>● Damper</li> <li>● Spar</li> <li>● Beam</li> <li>● Pipe/Elbow</li> <li>● Shell - Thin</li> <li>● Layered Shell - Thin (Composite)</li> <li>● Shell - Thick (Solid Shell)</li> <li>● Layered Shell - Thick (Solid Shell)</li> <li>● 2D Plane / Axisymmetric</li> <li>● 3D Solids</li> <li>● Layered 3D Solids (Composite)</li> <li>● Infinite Domain</li> <li>● 2.5D</li> <li>● Reinforced</li> <li>● ROM</li> <li>● Substructuring / Matrix</li> </ul>	
2	<p><b>Modeling Capabilities</b></p> <ul style="list-style-type: none"> <li>● Contact - Linear</li> <li>● Contact - Nonlinear</li> <li>● Joints</li> <li>● Spot Welds</li> <li>● Birth and Death</li> <li>● Gaskets</li> <li>● Rezoning and Adaptive Remeshing</li> </ul>	
3	<p><b>Types of Materials</b></p> <ul style="list-style-type: none"> <li>● Basic Linear Materials (Linear, Anisotropic, Temperature Dependent).</li> <li>● Basic Nonlinear Materials (Hyper, Plasticity, Rate Independent, Isotropic, Concrete).</li> <li>● Advanced Nonlinear Materials (Rate dependent, Anisotropic, Damage Models, Geomechanics Materials, and Multiphysics).</li> <li>● Field Dependent</li> </ul>	

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	<ul style="list-style-type: none"> <li>● Reactive Materials</li> <li>● Fracture Mechanics</li> </ul>	
4	<p><b>Capabilities in modeling of Composite Materials</b></p> <ul style="list-style-type: none"> <li>● Material Definitions</li> <li>● Layers Definitions</li> <li>● Solid Extrusion</li> <li>● First-ply Failure</li> <li>● Last-Ply failure</li> <li>● Delamination</li> <li>● Draping</li> </ul>	
5	<p><b>Structural Solver Capabilities</b></p> <ul style="list-style-type: none"> <li>● Linear Static</li> <li>● Nonlinear Static</li> <li>● Pre-Stress effects, Linear perturbation</li> <li>● Nonlinear Geometry</li> <li>● Buckling - Linear Eigenvalue</li> <li>● Buckling - Nonlinear Post Buckling</li> <li>● Behavior</li> <li>● Buckling - Nonlinear Post Buckling</li> <li>● Behavior- Arc Length</li> <li>● Steady State Analysis applied to a Transient Condition</li> <li>● Advanced Wave Loading</li> </ul>	
6	<p><b>Thermal analysis capabilities</b></p> <ul style="list-style-type: none"> <li>● Steady State Thermal</li> <li>● Transient Thermal</li> <li>● Conduction</li> <li>● Convection</li> <li>● Radiation to Space</li> <li>● Radiation - Surface to Surface</li> <li>● Phase Change</li> <li>● Thermal Analysis of Layered Shells and Solids</li> </ul>	
7	<p><b>Vibrations analysis capabilities</b></p> <ul style="list-style-type: none"> <li>● Modal</li> <li>● Modal - Pre-Stressed</li> <li>● Modal - Damped/Unsymmetric</li> <li>● Transient - Mode-Superposition</li> <li>● Harmonic - Mode-Superposition</li> <li>● Harmonic - Full</li> <li>● Spectrum</li> <li>● Random Vibration</li> <li>● Mistuning</li> </ul>	

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	<ul style="list-style-type: none"> <li>● Rotordynamics</li> </ul>	
8	<b>Nonlinear Transient Dynamics capabilities</b> <ul style="list-style-type: none"> <li>● Rigid Body Mechanisms</li> <li>● Rigid Body Dynamics with CMS components for flexible bodies</li> <li>● Full Transient</li> <li>● CMS with Substructuring</li> </ul>	
9	<b>Explicit Dynamics capabilities</b> <ul style="list-style-type: none"> <li>● FE (Lagrange) Solver</li> <li>● ANSYS Autodyn</li> <li>● Implicit-Explicit Deformations</li> <li>● Implicit-Explicit Material States</li> <li>● Mass Scaling</li> <li>● Natural Fragmentation</li> <li>● Erosion Based on Multiple Criteria</li> </ul>	
10	<b>Durability analysis</b> <ul style="list-style-type: none"> <li>● Stress-Life (SN)</li> <li>● Strain-Life (EN)</li> <li>● Safety Factor</li> </ul>	
11	<b>Multi Analysis Capabilities</b> <ul style="list-style-type: none"> <li>● Submodeling</li> <li>● Data Mapping</li> <li>● Trace Mapping</li> <li>● Initial State</li> <li>● Advanced Multi-Stage 2-D to 3-D Analysis</li> </ul>	
12	<b>Wave Hydrodynamics capabilities</b> <ul style="list-style-type: none"> <li>● Diffraction and Radiation</li> <li>● Frequency &amp; Time Domain Motions Analysis</li> <li>● Moorings, Joints &amp; Tethers</li> <li>● Load Transfer to Structural Analysis</li> </ul>	
13	<b>Includes following modules</b> <ul style="list-style-type: none"> <li>● ANSYS SpaceClaim</li> <li>● ANSYS Composite Pre-Post</li> <li>● ANSYS Autodyn</li> <li>● ANSYS Customization Suite (ACS)</li> <li>● Support ACT Extensions</li> <li>● Command snippet support</li> <li>● Batch run capability</li> <li>● External Code Interfaces</li> </ul>	
14	<b>Capabilities in Model Preparation for CAE</b>	

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	<ul style="list-style-type: none"> <li>● Open data from any CAD system</li> <li>● Edit designs and prepare them for simulation</li> <li>● Simplify geometry by removing features (eg rounds and holes)</li> <li>● Clean up and repair dirty geometry to create watertight solids</li> <li>● Create parameters on imported geometry to enable optimization of designs through analysis</li> <li>● Extract mid-surfaces/shells and beams solid models for efficient meshing and solving</li> <li>● Extract volumes/create inner fluid domains and outer air enclosures for CFD</li> <li>● Create shared topology among bodies to generate conformal meshes</li> <li>● Slicing of models into hex meshable bodies</li> <li>● Create weld bodies to simulate welds between shells</li> <li>● Define regions of symmetry for symmetric analysis</li> <li>● Define named selections to aid in scoping of loads and boundary conditions</li> <li>● Define general CAD attributes</li> <li>● 2D drawing and editing tools</li> <li>● 2D dimensioning and constraints</li> <li>● Supply 3D markups and compare models to document changes to design teams</li> <li>● Repair and edit faceted files for further FEA topological optimization and CFD analysis</li> <li>● Early Concept Design (bid modeling/ brainstorming/concepting)</li> <li>● Create new concepts quickly and easily with four tools: Pull, Move, Fill, Combine</li> <li>● Use Cut, Copy, Paste, etc for fast ideation from existing designs</li> <li>● Enable 2d and 3D communication and collaboration with 3D Markup, Dimensions, and Drawing tools</li> <li>● Create BOM to evaluate weights and lengths for cost calculations</li> <li>● Make real-time edits with customers in LiveReview</li> <li>● Use automated tools to repair dirty geometry</li> <li>● Use top down or bottom up modeling</li> <li>● Create 2D drawings</li> <li>● Import and edit large assemblies</li> </ul>	
15	<p><b>Provides access to the following formats through the ANSYS Workbench environment:</b></p> <ul style="list-style-type: none"> <li>● IGES</li> <li>● STEP</li> <li>● Parasolid®</li> <li>● SAT</li> </ul>	

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	<ul style="list-style-type: none"> <li>● STL</li> </ul>	
16	<b>Optimization analysis Capabilities</b> <ul style="list-style-type: none"> <li>● Parameters Optimization</li> <li>● Design Point Studies</li> <li>● Correlation Analysis</li> <li>● Design of Experiments</li> <li>● Sensitivity Analysis</li> <li>● Goal Driven Optimization</li> <li>● Six Sigma Analysis</li> </ul>	
29	<b>CFD-Solver Capabilities</b> <ul style="list-style-type: none"> <li>● Comprehensive Inlet and Outlet Conditions</li> <li>● Steady State Flow</li> <li>● Transient Flow</li> <li>● Customizable Material Library</li> <li>● Periodic Domains</li> <li>● Pressure based coupled solver</li> </ul>	
30	<b>CFD-Single Phase, Non reacting Flows</b> <ul style="list-style-type: none"> <li>● Incompressible Flow</li> <li>● Compressible Flow</li> <li>● Non-Newtonian Viscosity</li> <li>● Turbulence - Isotropic</li> <li>● Turbulent - Laminar/Turbulent Transition</li> <li>● Flow Pathlines (Massless)</li> </ul>	
31	<b>CFD Heat Transfer</b> <ul style="list-style-type: none"> <li>● Natural Convection</li> <li>● Conduction and Conjugate Heat Transfer</li> <li>● External Radiation</li> </ul>	
32	<b>Multi-physics</b> <ul style="list-style-type: none"> <li>● Advanced Automated Data Exchange between HF, LF, Mechanical and CFD bundles</li> <li>● Accurate Data Interpolation Between Dissimilar Meshes</li> <li>● Direct coupling between Physics</li> <li>● Collaborative Workflows</li> </ul>	
33	<b>Fluid Structure Interaction</b> <ul style="list-style-type: none"> <li>● Force Induced Motion/Deformation</li> <li>● Fluid Thermal Deformation</li> </ul>	

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