



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department: Civil Engineering

Tender Notice No: NITR/PW/CE/2021/238

Date: 03/02/2021

IMPORTANT DATES

To

Bidding
Through
e- Procurement module of
CPP Portal

<https://eprocure.gov.in/eprocure/app>

Event	Date	Time
Pre-bid meeting	NA	NA
Last date of submission of bid	24/02/2021	03:00 PM
Date of opening of techno-commercial bid	25/02/2021	03:00 PM

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.

For any clarification:

Yours sincerely,

Attention:
Dr. Rabi Narayan Behera
Assistant Professor
Department of Civil Engineering,
National Institute of Technology,
Rourkela – 769 008
Phone: 0661-246-2348/78731 00435
E-mail: beherarabin@nitrrkl.ac.in

Dr. Rabi Narayan Behera
Assistant Professor
Civil Engineering
NIT Rourkela

Encl:

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

1. Schedule of requirements

SL.NO	Description of Goods/Service	Quantity
1.	Geomechanics Module, Structural Mechanics Module and Heat Transfer Module along with Integration Platform	One user

2. Specifications and allied Technical Details: As per the specification attached in the **Annexure-II**

3. Format of Quotation (tick appropriate box)

It is a two-part with separate techno-commercial and price bids.

4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>

5. Quotations should be valid for a period of **90 days** from the date of opening of techno-commercial bid.

6. Some important dates:

i.	Pre-bid Conference	Date:	NA		NA
ii.	Last date for submission of bid	Date:	24/02/2021	Time:	03:00 PM
iii.	Date of opening of techno- commercial bid	Date:	25/02/2021	Time:	03:00 PM

7. **Warranty:** One year standard warranty.

8. **GST:** GST should be charged according to applicable rates. As per Institute rule, concessional GST may be charged against DSIR certificate.

9. **Tender Fee:** Tender cost (Non- refundable) in the shape of **Demand Draft** for **INR 500/- (Rupees Five Hundred Only)** in favor of "**Director, NIT Rourkela**" Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela- 769008, Odisha; on or before 25/02/2021 at 03:00 PM**, failing which the bid will be summarily rejected.

10. **Bid Security:** It is mandatory to submit the "**Bid Security declaration**" form as mentioned in **Annexure I**, failing which the bid will be summarily rejected.

11. **Performance Security: 3 % of the Contract Value** should be deposited to the Institute within 15 days from the date of issue of Purchase Order, in shape of Demand Draft (DD)/Bank Guarantee in favor of Director, NIT Rourkela and payable at Rourkela. And Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation.

12. Please go through the enclosed "bid document" carefully for other bidding instructions.

13. Please send your quotations through: <https://eprocure.gov.in/eprocure/app>

14. Technical Bid Evaluation Criteria:

- I. At least five Purchase Orders from IIT/ NIT/IISER/reputed Indian institute/Govt. R&D organizations of the similar type of modules must have been supplied in last five years. Scan copies of the minimum five purchase orders of similar type of modules (**Annexure-II**) must be enclosed along with the technical bid.

- II. Bids are invited from OEM or Authorized vendor. Authorized vendor will submit the Bid Specific OEM MAF along with bid document. Authorized Vendor or Original Equipment Manufacturer (OEM) should have own service center in India. The Authorized Vendor or OEM must enclose details of their infrastructure with reference to locations and technical manpower, availability of inventory spares etc. A valid GST registration certificate of Authorized Vendor or OEM should be submitted along with bid.
- III. Scanned copies of the technical brochure of the above modules (**Annexure-II**) given in the quotation must be included in the technical bid.
- IV. Web references must be provided along with the technical bid.
- V. Point wise technical compliance along with any deviation of the mentioned specifications (**Annexure-II**) must be indicated along with technical documents.
- VI. Make and model no. should be mentioned in the technical bid.

Financial Bid Evaluation Criteria:

The award of contract will be made based on the Lowest price (L1) including all taxes quoted for item no. 1.01 in BOQ.

15. For technical details, you may contact

Dr. Rabi Narayan Behera
Assistant Professor
Department of Civil Engineering,
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Rourkela – 769 008
Phone: 0661-246-2348/78731 00435
E-mail: beherarabin@nitrrkl.ac.in

NB: Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela– **769008**, Odisha, from the intending bidders for supply of the goods/stores/equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the tender document.
- 1.5 The bids should be uploaded in <https://eprocure.gov.in/eprocure/app>. Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., techno-commercial bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over- writing in those pages is acceptable.
- 1.11 If any bidder does not fulfill technical specification, his/her eligibility will be cancelled even if his/her price got L1 status.
- 1.12 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD & Tender cost provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges including taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or ad-valorem rate must be specified. Packing, forwarding, freight, etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad-valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018]

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **30 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 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 as mentioned in schedule of requirements in the tender documents.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 Purchase order / Work order shall be placed on the bidding firm(s). In case of deviation to this, if any, the bidding firm should produce any such sufficient documents/credentials i.e, Agreements, MOUs, Arrangements etc. with the third party/ OEM to satisfy the buyer. A consent letter from the third party/ OEM to that effect must be enclosed along with the bidding documents.
- 2.10 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, Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. 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.
- 2.11 The successful bidder may be required to execute a contract, where applicable.
- 2.12 The bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.

- 2.13 State Bank of India is the sole Banking partner for NIT Rourkela for operation of LC (Letter of Credit).
- 2.14 Payment (*100 percent*) will be made by Account Payee Cheque/Bank Draft, 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.
- 2.15 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, and Rourkela shall be final.
- 2.16 The bid document/resultant contract will be interpreted under Indian Law.

BID SECURITY DECLARATION

Tender Ref. No.: _____ Dated _____

Tender ID: _____

To

**The Registrar,
National Institute of Technology, Rourkela
Sundargarh, Odisha-769008**

The undersigned, declare that I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration. I/We accept that I/We may be disqualified/ suspended from bidding for any tender /contract in your Institute (NIT Rourkela) for a period of **Five Years** from the date of notification of present tender, if I am /We are in a breach of any obligation under the bid conditions as under, if I/We

- a) Withdraw/modify/amend, impair or derogate the tender/bids, during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
 - (i) fail or refuse to execute the contract, if required, or
 - (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

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

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

Name: (insert complete name of person signing the Bid Securing Declaration) Duly authorized to sign the bid for and on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing) Corporate Seal (where appropriate)

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

DETAILED TECHNICAL SPECIFICATION

Specifications for Geomechanics Module, Structural Mechanics Module and Heat Transfer Module along with Integration Platform

Sealed tender bids are invited from reputed/authorized vendors/companies for Geomechanics Module, Structural Mechanics Module and Heat Transfer Module along with Integration Platform with following tender specifications.

1. Geomechanics Module

The structures like tunnels, excavations, slope stability, and retaining structures requires nonlinear material models tailored for geotechnical applications. It shall be capable of including built-in material models for modeling deformation, plasticity, creep, and failure in soils, concrete, and rock.

Apart from built-in material models, user-defined yield functions and mathematical expressions of the field variables, stress and strain invariants, and derived quantities using equation-based modeling shall be possible. Also, there shall be provision to incorporate in-situ stresses and define material properties that are dependent on another variable, such as a computed temperature field or water pressure.

The following material models shall be available in the Geomechanics Module

- *Soil Plasticity*: Mohr–Coulomb; Dilation angle; Drucker–Prager; Elliptic cap; Tension cutoff; Dilation angle; Matsuoka–Nakai; Lade–Duncan
- *Elastoplastic Soil*: Modified Cam–Clay; Modified structured Cam–Clay; Extended Barcelona basic; Hardening soil
- *Concrete*: Ottosen; Bresler–Pister; William–Warnke; Tension cutoff
- *Rock*: Original Hoek–Brown; Generalized Hoek–Brown; Tension cutoff
- *Plasticity*: Von Mises; Tresca
- *Creep*: Volumetric; Deviatoric; Potential; User defined
- *Damage*: Mazars damage for concrete; Phase-field damage; Equivalent strain criterion; Rankine; Smooth Rankine; Norm of elastic strain tensor; User defined; Crack band regularization; Implicit gradient regularization; Viscous regularization
- *Nonlinear Elasticity*: Ramberg–Osgood; Hyperbolic Law; Hardin–Drnevich; Duncan–Chang; Duncan–Selig; User defined

2. Structural Mechanics Module

Application areas shall include civil engineering, geomechanics, mechanical engineering, biomechanics, and MEMS devices. Using the Structural Mechanics Module, analyzing mechanical behavior of solid structures such as stress, strain, stiffness, natural frequencies, response to dynamic loads and buckling instability etc. shall be possible.

The following types of analyses shall be run with the Structural Mechanics Module:

- *Stationary*
- *Eigen frequency*: Undamped; Damped; Prestressed
- *Transient*: Direct or mode superposition
- *Frequency response*: Direct or mode superposition; Prestressed
- *Parametric*
- *Quasistatic*
- *Linear buckling*
- *Mode analysis*
- *Modal reduced order*
- *Response spectrum*
- *Random vibration*

3. Heat Transfer Module

The Heat Transfer Module shall include a comprehensive set of features for investigating thermal designs and effects of heat loads. It shall have the facility to model the temperature fields and heat fluxes throughout devices, components, and buildings.

It should include the following analyses

- *Conjugate Heat Transfer and Nonisothermal Flow*
- *Thin Layers and Shells*
- *Surface-to-Surface Radiation*
- *Phase Change*
- *Conduction*
- *Convection*
- *Radiation*

4. Integration Platform

It shall have the capability to couple above mentioned three modules and simulate it.

Other Requirements	
Installation	Enclose pre-installation guide for installation of software.
Manuals	1 set of detailed manual should be provided in both soft form as well as Hard copy. Language should be English only.
Warranty	01 Year Standard Warranty