



GSTIN : 20AAAAI0686D1ZA

भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्ड, भारत, पिन-826004

(शिक्षा मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्व का एक संस्थान)

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD**DHANBAD, JHARKHAND, INDIA, PIN-826004****(An Institute of National Importance under Ministry of Education, Govt. of India)****PROJECT PURCHASE SECTION** Phone: (0326)2235660 || Email: projectpurchase@iitism.ac.in || Website: www.iitism.ac.in

No. EC-PRJ-003-25-26

Date: 21st April, 2025**Request for Quotation**

To,

Subject: Supply and Installation of photonic CAD Lumerical tool (ANSYS academic lumerical Research perpetual License with one year upgrade) License.

Sirs

Indian Institute of technology (Indian School of Mines), Dhanbad is interested for the purchase of the materials/ equipment listed below:

Sl. No.	Detailed Specifications	Quantity
1	Supply and Installation of photonic CAD Lumerical tool (ANSYS academic lumerical Research perpetual License with one year upgrade) License. (Specification in Annexure –I)	01 No.

INSTRUCTIONS:

- 1) Please attached authorization certificate for OEM.
- 2) Please mention warranty/ guarantee period in your offer. Equipment/ material supplied must have minimum warranty/ guarantee of 12 months
- 3) Price Basis: FOR IIT (ISM) Dhanbad
- 4) The items/ materials shall be required to be delivered at **Department of Electronics Engineering of IIT (ISM) Dhanbad** at the risk and cost of the tenderer.
- 5) **Please attach a certificate that the quoted price is not more than that of any other Govt. organization/ institution in India. This has to be mentioned in the offer letter clearly.**
- 6) The rates should be quoted for each item separately as per price schedule attached as **Annexure - V**
- 7) **Your tender must be valid for minimum 120 days from the date of opening of tender.**
- 8) Full details of items/materials offered should be given in the tender along with supporting & relevant literatures/ Technical Literature.
- 9) **Tender may please be submitted in sealed cover only superscribed with Enquiry No. EC-PRJ-003-25-26 latest by 11.05.2025.**
- 10) **EMD:** EMD of an amount of **Rs. 46,020/-** in form of Demand Draft in favor of Registrar, IIT (ISM) Dhanbad payable at Dhanbad. EMD can also be submitted in the form of Term Deposit Receipt/ Fixed Deposit Receipt/Bank Guarantee drawn in favor of Registrar, IIT(ISM)Dhanbad
- 11) **Performance Security:** To ensure due performance of the item, you are required to submit a performance security. The performance security should be furnished within 21 days of the award of supply order. Performance security should be for an amount of five percent (5%) of the value of the supply order. Performance security may be furnished in the form of a Demand Draft/ Fixed Deposit Receipt / Bank Guarantee from a commercial bank in favour of Registrar IIT (ISM) Dhanbad, payable at Dhanbad. Performance security should remain valid for a period of 14 Months from the date of final acceptance/Installation. The performance security will be refunded without any interest, provided that the performance is satisfactory.
- 12) The offer must be submitted in the office of **Deputy Registrar (Project Purchase Section), IIT (ISM), Dhanbad– 826004 (Jharkhand, India) only.** Please send your offer by Registered Post/ Speed Post/ Courier along with Courier receipt. Tender/ quotation will be received during IIT (ISM) Dhanbad working hours only (i.e. Monday to Friday). At any circumstances by hand delivery is not acceptable. Late or delayed tenders shall be summarily rejected. Bids sent through Email/Fax or submitted in unsealed cover(s) will not be accepted and such bids will be treated as non-responsive bids.
- 13) Any other information that you may like to obtain, you are free to contact IIT (ISM) Dhanbad before submission of tender.
- 14) IIT (ISM) Dhanbad reserves the right to accept and/or to reject any/all tenders without assigning any reason.
- 15) **Payment:** Payment shall normally be made within 3-4 weeks subject to **satisfactory supply, installation, commissioning and submission of tax invoice and delivery challan in triplicate (as per Purchase Order Terms) of the ordered materials/items.** Advance payment is not admissible
- 16) You are requested to fill the enclosed Annexures.
- 17) **Please attach purchase order copies of the same equipment which you have supplied to any other Govt., public sector and autonomous institutions.**
- 18) **a) In a tender, either the Indian agent on behalf of the principle/ OEM and the Principle/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.**
b) If an agent submit bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.

For and on behalf of
IIT(ISM), DhanabdDeputy Registrar
(Project Purchase Section)
O/o Dean (R&D)

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Date: 21st April, 2025**Annexure I****Ansys Lumerical Software Technical Specification**

SL. No	Design module/area	Specification
		Ansys Lumerical Strengths: ▪ Application Gallery with wide range of application examples ▪ Lumerical AIC/ALH courses ▪ Automation API with Python ▪ Inbuilt scripting ▪ Powerful CAD Environment ▪ Stability ▪ Foundry collaboration ▪ EPDA with Cadence and Siemens ▪ Interoperability with Zemax and Speos: end-to-end optical simulation ▪ Popularity across Academics and Industry
1.	Optical waveguide design and analysis in 3D and 2D	3D analysis • The software should use 3D/2D Maxwell Solver with Finite Difference Time domain method. • The software should have multi-coefficient models for accurate material modelling. • The software should have wide range of non-linear, negative index and gain models. • The software should support PML, Symmetric and Anti-symmetric, Bloch and periodic boundary conditions to simulate photonic structures. • The software should have conformal meshing algorithm to get accurate results for coarse mesh. • The software should have a library of photonic crystal models. • The software should have the option to export 3D data in GDS II file catering to foundry supports. • The software should have 3D CAD Environment with STL and GDS II file import option. • The software should support surface import option. • There should be capable to convert SEM image to 3D object. • The software should have broadband fixed angle source technique for simulating broadband sources. • The software should consist integrated Mode source along with other types of sources (e.g. Gaussian source, dipole source and plane wave source etc.) • The software should support import of custom source profile from monitor data or equations. • It should support export of field results in the form of movie (.mp4) • The software should have the option for dedicated scripts for parameter sweep, optimization and S-parameter calculations in the same window. • The software should have dedicated analysis groups for solar cells, electro-optic and thermo-optic modulators etc. 2D analysis • The software should have waveguide solver using 2.5D var FDTD, Finite difference Eigenmode and bidirectional EigenMode Expansion solving techniques.

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		- The software should have the option for virtual prototyping of large integrated optical components, reducing the need for expensive, time-consuming manufactured prototypes. - The software should have dedicated analysis tabs like modal, frequency and overlap analysis etc. - The software should have dedicated scripts for parameter sweep, optimization and S-parameter calculations in the same window. - The software should be capable to model surface roughness of the waveguide. - The software should consist of a library of primitive and complex structures like rounded corners, waveguide bends, helix and spiral structures and surface roughness etc. - The software should have 3D CAD Environment with STL and GDS II file import. - The software should support surface import. - The software should be capable of converting SEM image to 3D object. - The software should have custom time signal and spectrum source. - It should support PML, Symmetric and Anti-symmetric, Bloch and periodic boundary condition to simulate photonic structure. - It should support the export of field results in the form of movie (.mp4) - The software should have the option to export 3D data in GDS II file catering to foundry supports. - The software should be capable of integration with Ansys tools.
2.	Charge transport analysis	- The software should have dedicated charge transport solver to calculate charge flow in opto-electronic and photonic devices. - The software should have wide library incorporating temperatures, doping and high-field effects.
3.	Heat transport analysis	The software should have dedicated finite element heat solver to handle conductive, convective and radiative effects.
4.	3D electromagnetic and waveguide Simulation	- The software should have Discontinuous Galerkin Time domain solver for complex geometries. - The software should be capable to model surface roughness of the waveguide. - The software should have dedicated finite element Maxwell solver for curved and complex waveguides.
5.	Optical Multilayer simulation	The software should have multilayer thin-film simulator used for AR coatings, filters, Lasers, also captures interference and micro cavity effects.
6.	Quantum mechanical simulation	- The software should be capable of computing quantum mechanical band-structure calculations using k-p method. - The software should be capable of computing gain and spontaneous emission in multi-quantum well structures.
7.	Photonic Integrated Circuit (PIC) system design and simulation	- The software should have the capability to design, simulate and analysis of photonic integrated circuits, photonic components and optical interconnects in time and frequency domain. - The software should have hierarchical schematic editor with an extensive library of elements. - The software should have foundry specific PDK elements. - The software should have integrated laser simulations.



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- | | |
|--|---|
| | <ul style="list-style-type: none">• The software should be interoperable with industry related EDA and PDA tools.• The software should have dedicated analysis tools for PBG devices.• The software should have High Performance Parallel Computing (HPC) Support to get faster simulations.• The software should have APIs with other industry leading products like Zemax, Mentor Graphics, Cadence, MATLAB, Python.• The software should have photonic model development kit.• It should have automation API to support optimization and scripting.• The software should have inbuilt library of laser models• The software should have in-built library of photonic crystal models• The software should easily couple with Ansys tools. |
|--|---|



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Date: 21st April, 2025**Annexure – II****Declaration by bidder****(Please specify Class of Supplier and Local Content percentage)****In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated : 04th June 2020 issued by DIPP,
Ministry of Commerce and Industries, Govt. of India.**

To,
The Registrar,
Indian Institute of Technology (Indian School of Mines)
Dhanbad -826004
Respected Sir,

In accordance with the order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020, I hereby declare that

- i) I am aware about all provision mentioned in GeM Bid No EC-PRJ-003-25-26 as well as order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and abides by the same.
- ii) I declare that for this tender, I am a **Class-I local supplier / Class-II local supplier / Non-local supplier** (Strike out whichever is not applicable) and classification is based on local content of goods/services/work offered by bidder in this tender.
- iii) **Local content (in percentage) in offered good/services/work is: _____%**
Whereas 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- iv) The local content for all inputs which constitute the said goods/services/works has been verified and bidder is responsible for the correctness of the claims made therein.
- v) Details of items, amount and location(s) at which the local value addition is made:

Sl. No.	ITEM (S)	AMOUNT	LOCATION(S)
1.			
2.			
3.			

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:



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ANNEXURE-III

SELF-CERTIFIED DECLARATIONS FOR TAKING PART IN TENDER

a. Regarding blacklisting / debarring

b. Insolvency

1. I / We _____ (Tenderer) hereby declare that the firm / agency / Company, namely M/s _____ has not been declared as **insolvent**.

AND

2. I / We _____ (Tenderer) hereby declare that the firm / agency / Company, namely M/s _____ has not been **blacklisted or debarred** in the past by Union / State Government or Organization from taking part in Government tenders in India.

OR

2. I / We _____ (Tenderer) hereby declare that the Firm/Agency/Company, namely M/s _____ was **blacklisted or debarred** by Union/ State Government or any Organization from taking part in Government tenders for a period of _____ years w.e.f. _____ to _____. The period is expired and now the Firm/Agency/Company is entitled to take part in Government tenders.

In case the above information is found to be false I / We are fully aware that the tender/contract will be rejected / cancelled by Director, IIT(ISM) Dhanbad, and EMD shall be forfeited.

In addition to the above the Director, IIT(ISM) Dhanbad will not be responsible to pay the bills for any completed/partially completed work.

Date:

Place:

Self Certification: _____

Name: _____

Address: _____

Stamp:



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Annexure- IV

UNDERTAKING

(To be signed and submitted/uploaded along with Technical bid documents on Company's Letter Head)

(As per Office Memorandum No. F.7/10/2021-PPD(1) dated: 23.02.2023 issued by Department of Expenditure (Ministry of Finance), Govt. of India)

Model certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached]"

Place:

Signature: _____

Date:

Name: _____

Stamp: _____

OR

Model certificate for tenders for work involving possibility of sub-contracting

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contracting from such countries I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub contract any work to a contract form such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Provide Compliance for the above in Vendor Specified Commercial Terms.]"

Place:

Signature: _____

Date:

Name: _____

Stamp: _____

1. PRICE SCHEDULE FOR GOODS BEING OFFERED WITHIN INDIA

Name of the Bidder_____

NIT Reference No. _____

File Reference No. _____

Sl. No.	Full Description of items with (HSN Code/SAC Code)	Quantity	Unit Price (in INR)	Total Amount (in INR)
1.				
2.				
3.				
Ex-Works Price-				
Packing & forwarding				
Transportation				
FOR (IIT ISM) Dhanbad				
GST/IGST (their rate(s) as the case may be, clearly specified)				
Insurance up to Destination/handover (in case of fabrication)				
Installation & Commissioning charge				
Training charges, if any				
Additional Warranty Charges, if any				
Annual Maintenance Charge, if any				

*(On the basis of the technical specifications submitted)

Total Bid Price_____

in words_____

Note :

(a) The Price schedule of optional items shall be indicated in a separate sheet in the same Performa.

(b) Cost spare parts may be indicated separately

Signature of Bidder

Name _____

Business

Address_____