

NOTICE INVITING TENDER

I-HUB QUANTUM TECHNOLOGY FOUNDATION, IISER, PUNE
First Floor, Main Academic Building, IISER Campus, Dr Homi Bhabha Rd, 411008
Tel: 020-25908647 Email: qtf_purchase@quantech.org.in Website: www.quantech.org.in

Tender Ref. No: **I-HUBQTF/PUR/22-23/006**Date: **22/02/2023**

I-HUB Quantum Technology Foundation, IISER Pune invites quotations in single bid for the following.

Brief Details of Tender:

Item Description	Estimate Cost of Tender in Rs.
1. ANSYS Zmax Optic Pro (1 user, perpetual license)	20 Lakhs
2. ANSYS Academic Lumerical Research (5 tasks, perpetual license)	30 Lakhs

Category of Suppliers invited for this Tender:

Class I local Supplier – has local content equal to more than 50%

Class II local Supplier – has local content more than 20% but less than 50%

Note: Non-Local supplier need not apply**Critical Dates of Tender:**

Sr.No	Particulars	Date	Time
1	Date of Publication/Download of Tender	22/02/2023	18:00 Hrs.
2	Bid Submission Start Date	22/02/2023	18:30 Hrs.
3	Bid Submission Close Date	09/03/2023	15:00 Hrs.
4	Opening of Bids	10/03/2023	15:30 Hrs.

TABLE OF CONTENTS

NOTICE INVITING TENDER.....	1
Brief Details of Tender:.....	1
Critical Dates of Tender:.....	1
TABLE OF CONTENTS	2
CHAPTER 1: INVITATION FOR BIDS.....	4
1. I-HUB QTF, IISER Pune invites bids in single bid system for:.....	4
2. Purchase Committee	5
4. Comparison of Responsive bids:	5
5. Bid Evaluation.....	5
6. Fall clause	6
CHAPTER 2: INSTRUCTIONS TO BIDDERS	7
1. Techno-Commercial Bid	7
2. Delivery Period / Timeliness	7
3. Locations for the Supply / Services.....	7
4. Eligible Bidders.....	7
5. Amendment of Bidding Documents.....	8
6. Preparation of Bids - Period of validity of bids.....	8
7. Award of Contract - Award Criteria	8
8. Purchaser's Right to vary Quantities at the time of Award	8
9. Corrupt or Fraudulent Practices.....	8
10. Interpretation of the clauses in the Tender Document / Contract Document	8
CHAPTER 3: CONDITIONS OF CONTRACT	9
1. Price: For Goods manufactured in India - Bidders Quoting in Indian Rupees (INR)	9
2. Services.....	9
3. Delivery Schedule.....	9
4. Warranty / Support	9
5. Indemnity.....	9
6. Freight & Insurance	9
7. Security Deposit	10
8. Payment Terms	10
9. Penalty for delayed Services / LD.....	10
10 Comparison of Bids	10
11. Requirement of Registration: Vide Ministry of Finance OM No. 6/18/2019-PPD dated 23 July 2020.....	11
12. Jurisdiction	11

13. Force Majeure	11
14. Arbitration	11
CHAPTER 4: SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS	13
1. Technical Specifications for Ansys Zmax Optic Pro	13
2. Technical Specifications for ANSYS Academic Lumerical Research	15
CHAPTER 5: PRICE SCHEDULE	17
PRICE SCHEDULE FOR GOODS – INR	17
ANNEXURES	18
A: CERTIFICATE (ON COMPANY LETTERHEAD)	18
B: PREVIOUS SUPPLY ORDERS FORMAT	19
C: MANUFACTURER’S AUTHORIZATION FORM	20
D: BIDDER INFORMATION FORM	21
E: BLACKLIST CERTIFICATE	22
F: DECLARATION OF LOCAL CONTENT AND AVAILABILITY/COMPLIANCE OF EQUIPMENT	23
G: BID SECURITY DECLARATION	24
CHECKLIST FOR BIDDERS	25
IMPORTANT NOTICE	26

CHAPTER 1: INVITATION FOR BIDS

1. I-HUB QTF, IISER Pune invites bids in single bid system for:
 - ANSYS Zmax Optic Pro (1 user, perpetual license)
 - ANSYS Academic Lumerical Research (5 tasks, perpetual license)
 - i. The Technical specifications are given in [Chapter 4: Schedule of Requirements, Specifications and Allied Technical Details](#).
 - ii. Quotation should be SEALED and mention the ENQUIRY NO: DATE and DUE DATE on the envelope and reach on or before the due date on following mentioned address:

**I-HUB Quantum Technology Foundation, IISER Pune,
First Floor, Main Academic Building, IISER Campus,
Dr Homi Bhabha Rd, Pashan, Pune 411008.
Tel: 020-25908647 Email: qtf_purchase@quantech.org.in Website: www.quantech.org.in**
 - iii. Supply means: “Supply, Installation & Commissioning”.
 - iv. Submission of Bid: As per mentioned under [Critical Dates of Tender](#).
 - v. The Offer should comprise of the following:
 - a. The offer should be complete to indicate that all products and services asked for are quoted.
 - b. The purpose of certain specific conditions is to get or procure best Equipment/service etc. for I-HUB QTF, IISER Pune. The decision of Purchase Committee shall be the guiding factor for selection of the responsive firms.
 - c. Duly filled in Bid with proper seal and signature on each page of the bid should be submitted and accompany with complete specifications, Manufacturer’s name, address and relevant Technical Literature / Brochures with warranty Terms.
 - d. Agreements / Purchase Orders and Completion certificates if any, for similar works in other Institutes, the details of such supplies for the preceding 3 years should be given together with the prices eventually or finally paid.
 - e. Copy of GST No. and PAN Number allotted by the concerned authorities. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration and a copy of NSIC registration wherever it is applicable should also be provided in bid.
 - f. The prices should be shown against each item for the purpose of Insurance claims / replacements if any.
 - g. Compliance sheet with any deviation with reference to the terms and specifications.
 - h. The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate without any problem.
 - i. Duly filled in checklist should be submitted along with tender.
 - j. The Bidders are requested to quote for Educational Institutional Price for Equipment’s, since we are eligible for the same
- Note: I-HUB QTF, IISER Pune is requesting only Single Bid (Technical Specification and Price together). Bidders must be extremely careful about the requirement mentioned in the tender and submit their quotes accordingly. Any shortfalls found during the tender evaluation such bids will be rejected without seeking any further clarifications from the bidders. Since it is a single bid any further clarification will cause/draw objections from other bidders.**
- vi. All the bidders should quote their offer as per [Chapter 5: Price Schedule for uniformity](#).

2. Purchase Committee

The Purchase Committee will evaluate the tenders and may also nominate some external/expert members, in the interest of I-HUB QTF, IISER Pune.

3. Terms of the Purchase Committee

- i. A committee duly constituted by the Project Director, I-HUB QTF, IISER Pune will go through the bids and recommend firms that are meeting all the specifications of the Tender. The recommendation/decision of the purchase committee is the final and binding on all the parties.
- ii. Purchase Committee will proceed through Bids as defined in [Chapter 4 \(Schedule of requirements, specifications and allied technical details\)](#), in order to determine whether they are substantially responsive to the requirements set forth in the tender. In order to reach such a determination, I-HUB QTF, IISER Pune will examine the information supplied by the Bidders, and shall evaluate the same as per the specifications mentioned in this tender.
- iii. The purchase committee may formulate evaluation criteria in addition to the specifications and requirements indicated in the tender, in the interest of I-HUB QTF, IISER Pune.

4. Comparison of Responsive bids:

- i. After opening the bids, the responsive offers will be tabulated with reference to the specification.
- ii. After arriving at final pricing of individual offers of all the short listed firms, the lowest firm will be awarded with Contract/Purchase Order subject to availability of funds.

5. Bid Evaluation

Based on results of the Technical evaluation, I-HUB QTF, IISER Pune evaluates the Commercial Bid of those Bidders who qualify in the Technical evaluation.

- i. I-HUB QTF, IISER Pune shall correct arithmetical errors on the following basis:
 - a. If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected.
 - b. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - c. If there is a discrepancy between words & figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.
- ii. Selling exchange rate/equivalent to Indian currency will be as on the date of bid opening in the case of single bidding and the rate on the date of opening of the priced bids in the case of two-part bidding.
- iii. The bids shall be evaluated on the basis of final landing cost as per format given in Price Schedule in case of import / indigenous items.
- iv. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/CIP basis respectively. However the CIF/CIP prices quoted by any foreign bidders shall be loaded further as under :
 - Towards customs duty and other statutory levies-as per applicable rates.
 - Towards custom clearance, inland transportation etc. – 2% of the CIF/CIP value.
- v. Where the price quoted on FOB/FCA and CIF/CIP basis are the same, the Contract would be made on CIF/CIP basis only.

- vi. The Vague terms like “packing, forwarding, transportation..... etc. Extra” without mentioning the specific amount/percentage of these charges will not be accepted. Such offers shall be treated as incomplete and rejected.
- vii. After arriving at final pricing of individual offers of all the short listed firms, the lowest firm will be awarded with Contract/Purchase Order.

6. Fall clause

The commercial offer shall in no way exceed the lowest price at which the contractor sells the stores of identical description to any other person/organization during the currency of the contract.

- i. Two Purchase orders should be attach (preferably from the Govt. organizations) for whom similar supply has been made by the bidder in last three years.
- ii. No request for extension of due date will be considered under any circumstances.
- iii. No sub-contracting is allowed with regard to installation, warranty maintenance and after sales service.
- iv. The Project Director, I-HUB QTF, IISER Pune reserves the right to accept the offer/tender in full or in parts or reject summarily or partly.

CHAPTER 2: INSTRUCTIONS TO BIDDERS

1. Techno-Commercial Bid

The techno commercial bid contains following documents:

- i. Self-certification by the bidder that the items offered meet the local content requirement in pursuance of Public Procurement (Preference to Make in India), Order 2017
- ii. Certificate by Bidder- DPIIT Registration as per Annexure-A
- iii. Previous Supply Order Format as per Annexure-‘B’
- iv. Manufacturer’s Authorization Form as per Annexure-‘C’
- v. Bidder Information form as per Annexure-‘D’
- vi. Blacklist certificate as per Annexure-‘E’
- vii. Self-Declaration by the bidder as per annexure-‘F’ that the items offered meet the local/non local content requirement in pursuance of public procurement preference to make in India, order 2017 (please tick appropriate option).
- viii. Bid Security Declaration as per Annexure ‘G’
- ix. List of deliverables as per [Chapter- 4](#)
- x. Undertaking that the successful BIDDER agrees to give a 3 % Security Deposit and Performance Bank Guarantee. Any further changes in the rate of Performance Security will be considered as per government norms
- xi. Self-Attested copy of GST Number (as applicable).
- xii. Tender Terms & Conditions Acceptance signed with official seal is attached.
- xiii. Price bid should be submitted in PDF Format along with bill of material

2. Delivery Period / Timeliness

The deliveries & installation must be completed **within 30 days**, after placement of purchase order/after opening of LC. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet these expectations, as are tightly linked to I-HUB QTF, IISER Pune’s plans of completing the project within the time frame.

3. Locations for the Supply / Services

The supply and installation of the item(s) covered by this document is required to be done at I-HUB QTF, IISER Pune. Bidder to provide documentary proof in this regard before the final acceptance.

4. Eligible Bidders

- i. I-HUB QTF, IISER Pune reserves the right to award / reject the order to any particular bidder without assigning any reason thereof.
- ii. Bidders should not be under a declaration of ineligibility for corrupt and fraudulent practices.
- iii. Bidders should QUOTE strictly in accordance with the requirements.
- iv. Bidders shall adhere to the procedure and processes laid down in this document and shall follow fair and ethical practices of trade.
- v. Based on the list of installations provided by the bidder, I-HUB QTF, IISER will have its option to obtain details of the installations, their performance, after sales services etc. for evaluation of the tender, directly from the concerned organizations.

- vi. Firms which have already supplied to I-HUB QTF, IISER and have not completed required installation/after sales service/warranty replacements etc. such firms' offers will not be considered for further evaluation and no enquiries thereafter will be entertained.
- vii. Conditional Offers will not be considered.
- viii. I-HUB QTF, IISER Pune will not provide any accommodation/transportation for the engineers/representatives for attending installation. It is the absolute responsibility of the supplier to make their own arrangements.
- ix. The authorized person who signs the tender is required to indicate his e-mail ID, mobile No. and also general e-mail ID for easy and faster communication.

5. Amendment of Bidding Documents

At any time prior to the deadline for submission of bids, I-HUB QTF, IISER Pune may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder may modify the bid document.

6. Preparation of Bids - Period of validity of bids

- i. Bids shall be valid for a period of **180 days** from the date of opening the bid.
- ii. I-HUB QTF, IISER Pune may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. A bidder agreeing to the request for extension will not be permitted to modify his bid.

7. Award of Contract - Award Criteria

- i. I-HUB QTF, IISER Pune shall award the contract to the technically eligible lowest bidder.
- ii. If more than one bidder happens to quote the same lowest price, I-HUB QTF, IISER Pune reserves the right to award the contract to more than one bidder or any bidder.

8. Purchaser's Right to vary Quantities at the time of Award

I-HUB QTF, IISER Pune reserves the right at the time of award of Contract to increase or decrease quantity of items specified in [Chapter 4](#) without any change in unit price or other terms and conditions.

9. Corrupt or Fraudulent Practices

I-HUB QTF, IISER Pune requires that the bidders who wish to bid for this project have highest standards of ethics.

- i. I-HUB QTF, IISER Pune will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract.
- ii. I-HUB QTF, IISER Pune may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines that the vendor has engaged in corrupt and fraudulent practices during the execution of contract

10. Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, Project Director, I-HUB QTF, IISER Pune's interpretation of clauses shall be final, binding on all parties.

CHAPTER 3: CONDITIONS OF CONTRACT

1. Price: For Goods manufactured in India - Bidders Quoting in Indian Rupees (INR)

- i. The price of the goods must be as per the BoQ.
- ii. The price mentioned in BoQ must be inclusive of transportation, Insurance, loading and unloading and any other local service required for delivering the goods for the desired destination as decided by I-HUB QTF, IISER Pune. Loading and unloading is strictly in vendor scope. I-HUB QTF, IISER Pune will not provide any manpower support towards same.
- iii. The installation, commissioning and training charges (If any) must be mentioned as per the BoQ (if requested separately in BoQ) else the price quoted will be taken as inclusive of installation, commissioning and training.
- iv. I-HUB QTF, IISER Pune will not be responsible in case of the bidders failing to include any of the above mentioned prices in their bid. The price mentioned in the BoQ will be final and the bidder has to comply with that, if awarded the tender.
- v. Unloading of the goods at I-HUB QTF, IISER Pune is strictly in the scope of the bidder, no manpower will be provided by I-HUB QTF, IISER Pune.

2. Services

Details of services rendered as well as after-sales services offered by you are to be made clear in tender.

3. Delivery Schedule

- i. The bidders may please note that the delivery of the item should be strictly **within 30 days** from the date of placement of purchase order/after opening of LC.
- ii. Goods should not be dispatched until the Vendor receives a firm order.

4. Warranty / Support

- i. The items covered by the schedule of requirement shall carry **standard support from the date of acceptance of the item** by I-HUB QTF, IISER Pune.
- ii. The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, GST duties if any should be borne by the contractor/supplier. A clear confirmation should be given for this item.
- iii. The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- iv. The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.

5. Indemnity

The vendor shall indemnify, protect and save I-HUB QTF, IISER Pune against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the equipment's supplied by him.

6. Freight & Insurance

The equipment's to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at I-HUB QTF, IISER Pune site.

7. Security Deposit

After the award of contract, the vendor shall furnish a Security Deposit amounting to 3% of the purchase order value in the form of Performance Bank Guarantee favoring the, I-HUB Quantum Technology Foundation. The Security Deposit should be valid for a period of warranty period as we plan to extend the same as Performance Bank Guarantee. Any further changes in the rate of Performance Security will be considered as per government norms.

8. Payment Terms

- i. No advance payments are allowed under any circumstances.
- ii. **Payment will be made within 30 days by the I-HUB QTF Finance Department directly to the suppliers by RTGS/NEFT after receipt of the goods, tested /inspected and found satisfactory with regard to quality, quantity, and specifications ordered for and after satisfying that the terms and conditions of supply mentioned in the P.O./W.O. have been fulfilled.**

9. Penalty for delayed Services / LD

- i. As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise the I-HUB QTF, IISER Pune will forfeit SD and also LD clause will be applicable /enforced.
- ii. If the supplier fails to Supply, Install as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 1% of order value per every week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.
- iii. I-HUB QTF, IISER Pune reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the Security Deposit.

10 Comparison of Bids

The Purchaser shall compare all substantially responsive bids to determine the lowest evaluated bid.

Public Procurement (Preference to Make in India), Order 2017: I-HUB QTF, IISER Pune is following and abide with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and 4th June, 2020 and subsequent amendments to the order. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.

- i. I-HUB QTF, IISER Pune shall compare all substantially responsive bids to determine the lowest evaluated bid. This Company is following and abiding with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and its subsequent amendments. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.
- ii. As per the above order and its subsequent amendments “Local Content” means the amount of value added in India which shall be value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all the custom duties) as a proportion of the total value, in percent. Accordingly, the suppliers will be classified in following categories.
 - a. Class I local Supplier – has local content equal to more than 50%
 - b. Class II local Supplier – has local content more than 20% but less than 50%
 - c. **Non-Local Supplier need not apply**

- iii. Verification of Local Content: The Class I Local Supplier /Class II Local Supplier/Non Local Supplier at the time of bidding shall be required to indicate the percentage of local content and provide self-certification that the items offered meet the local content requirement. The details of the location(s) at which the local value addition is made also needs to be specified.
- iv. In case of procurement in excess of Rs.10 crores, the suppliers shall be required to provide the certificate from the statutory auditor or cost auditor of the company giving the percentage of local content.
- v. The bidders can be debarred for a period up to two years as, per Rule 151(iii) of GFR 2017, in case of false declaration.

11. Requirement of Registration: Vide Ministry of Finance OM No. 6/18/2019-PPD dated 23 July 2020

- i. Any bidder from a country sharing a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department for Promotion of Industry and Internal Trade (DPIIT).
- ii. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- iii. "Bidder from a country which shares a land border with India" for the purpose of this Order means:
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- iv. For details about registration procedures please visit the above mentioned OM. Mandatory documentary evidence regarding the bidder's registration with DPIIT is to be submitted along with the tender, failing which the tender shall be liable for rejection. Bidders are also requested to submit the Model Certificates as per Annexure-A for this tender as mentioned in the Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

12. Jurisdiction

The disputes, legal matters, court matters, if any, shall be subject to Pune Jurisdiction only.

13. Force Majeure

I-HUB QTF, IISER Pune may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that the delay, in performance or other failure to perform its obligations under the Contract, is the result of a Force Majeure. Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.) acts of states, the direct and indirect consequences of wars (declared or undeclared) hostilities, national emergencies, civil commotion and strikes at successful Bidder's premises.

14. Arbitration

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc. shall be referred by either party (I-HUB QTF, IISER Pune or the bidder) after issuance of 30 days' notice in writing to the other party clearly mentioning the nature of dispute to a single arbitrator acceptable to both the parties. The venue for arbitration shall be I-HUB QTF, IISER Pune India. The jurisdiction of the courts shall be Pune, Maharashtra, India.

Sd/-

Chief Executive Officer
I-HUB QTF, IISER Pune



CHAPTER 4: SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS**1. Technical Specifications for Ansys Zmax Optic Pro**

- i. Imaging & afocal design
- ii. Sequential ray tracing
- iii. 12 field points
- iv. 50 field points (best for aspheric design)
- v. Optimization
- vi. High-Yield Optimization
- vii. Contrast Optimization
- viii. Tolerancing
- ix. Quick yield Analysis
- x. Tolerance Data Viewer
- xi. Tolerance Data analysis
- xii. Thermal analysis
- xiii. Black Box encryption
- xiv. Image quality analysis
- xv. Image Simulation analysis
- xvi. Aspheric design
- xvii. Freeform optics
- xviii. Diffractive optics
- xix. Ghost Focus Generator
- xx. Multiple configurations
- xxi. Birefringence
- xxii. Stock Lens Matching Tool
- xxiii. Lighting & illumination design
- xxiv. Non-sequential ray tracing
- xxv. Geometric light sources
- xxvi. Measured light sources
- xxvii. Objects
- xxviii. Detectors
- xxix. Optimization
- xxx. Freeform optics
- xxxi. Tolerancing
- xxxii. Colorimetry
- xxxiii. Ray splitting
- xxxiv. Ray scattering

- xxxv. Programming Interface
- xxxvi. Zemax Programming Language
- xxxvii. User-configurable shortcut keys
- xxxviii. MATLAB interoperability
- xxxix. User-defined surfaces and objects
 - xl. User-defined scatter profiles & sources
 - xli. Programmable interface (ZOS-API)
 - xlii. Lasers & fibers
 - xlili. Gaussian beams
 - xliv. Scanning systems
 - xlv. Single mode fiber coupling
 - xlvi. Multi-mode fiber coupling
 - xlvii. Optimization
 - xlviii. Tolerancing
 - xlix. Physical Optics Propagation
 - I. M2 & beam quality
 - ii. CAD integration
 - lii. Export to STEP, IGES, SAT, STL
 - liii. import of STEP, IGES, SAT, STL
 - liv. Part designer – static parts
 - Iv. Data Libraries
 - Ivi. Design Templates collection
 - Ivii. Lens Catalog
 - Iviii. Materials Catalog
 - lix. Coatings Catalog
 - Ix. Test Plate Lists
 - Ixi. Spectrum data files
 - Ixii. IS Scatter Catalog
 - Ixiii. Radiant Source Models
 - Ixiv. IES Source Models

2. Technical Specifications for ANSYS Academic Lumerical Research

i. Optical waveguide design and analysis in 3D and 2D 3D analysis

- 3D/2D Maxwell Solver with Finite Difference Time domain method.
- multi-coefficient models for accurate material modelling.
- wide range of non-linear, negative index and gain models.
- The software support PML, Symmetric and Anti- symmetric, Bloch and periodic boundary conditions to simulate photonic structures.
- conformal meshing algorithm to get accurate results for coarse mesh.
- library of photonic crystal models.
- The software should have the option to export 3D data in GDS II file catering to foundry supports.
- 3D CAD Environment with STL and GDS II file import option.
- The software support surface import option.
- capable to convert SEM image to 3D object.
- The software should have broadband fixed angle source technique for simulating broadband sources.
- The software consists integrated Mode source along with other types of sources (e.g. Gaussian source, dipole source and plane wave source etc.)
- The software support import of custom source profile from monitor data or equations.
- export of field results in the form of movie (.mp4)
- option for dedicated scripts for parameter sweep, optimization and S-parameter calculations in the same window.
- dedicated analysis groups for solar cells, electro- optic & 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.
- The option for virtual prototyping of large integrated optical components, reducing the need for expensive, time-consuming manufactured prototypes.
- The software dedicated analysis tabs like modal, frequency and overlap analysis etc.
- dedicated scripts for parameter sweep, optimization and S-parameter calculations in the same window.
- capable to model surface roughness of the waveguide.
- consist of a library of primitive and complex structures like rounded corners, waveguide bends, helix and spiral structures and surface roughness etc.
- 3D CAD Environment with STL and GDS II file import.
- support surface import.
- capable of converting SEM image to 3D object.
- custom time signal and spectrum source.
- support PML, Symmetric and Anti-symmetric, Bloch and periodic boundary condition to simulate photonic structure.
- It supports the export of field results in the form of movie (.mp4)
- option to export 3D data in GDS II file catering to foundry supports.
- capable of integration with Ansys tools.

ii. Charge transport analysis

- dedicated charge transport solver to calculate charge flow in opto-electronic and photonic devices.
- wide library incorporating temperatures, doping and high-field effects.

iii. Heat transport analysis

- The software have dedicated finite element heat solver to handle conductive, convective and radiative effects.

iv. 3D electromagnetic and waveguide simulation

- Discontinuous Galerkin Time domain solver for complex geometries.
- capable to model surface roughness of the waveguide.
- dedicated finite element Maxwell solver for curved and complex waveguides.

v. **Optical Multilayer simulation**

- multilayer thin-film simulator used for AR coatings, filters, Lasers, also captures interference and micro cavity effects.

vi. **Quantum mechanical simulation**

- The software is capable of computing quantum mechanical band-structure calculations using k-p method.
- capable of computing gain and spontaneous emission in multi-quantum well structures.

vii. **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.
- hierarchical schematic editor with an extensive library of elements.
- foundry specific PDK elements.
- The software should have integrated laser simulations.
- interoperable with industry related EDA and PDA tools.
- dedicated analysis tools for PBG devices.
- High Performance Parallel Computing (HPC) Support to get faster simulations.
- APIs with other industry leading products like Mentor Graphics, Cadence, MATLAB, Python.
- The software should have photonic model development kit.
- automation API to support optimization and scripting.
- inbuilt library of laser models
- in-built library of photonic crystal models
- easily couple with Ansys tools.

CHAPTER 5: PRICE SCHEDULE

ALL THE BIDDERS SHOULD QUOTE THEIR OFFER IN FOLLOWING FORMAT FOR UNIFORMITY

The Bill of materials must be included in the technical offer as well as commercial offer. However, the Technical offer should not contain any price information.

PRICE SCHEDULE FOR GOODS – INR

Name of the Bidder _____

Tender No. _____

1	2	3	4	5	6	7	8	9	10	11	12
Sl. No	Item Description	Country of Origin	Qty	Unit	Ex-Works. Ex-Warehouse, Ex-show room off the shelf price (inclusive of tax already paid)	Total price	GST payable, if contract is awarded	Packing & forwarding up to station of dispatch, if any	Charges of inland transportation, insurance up to Company	Installation, Commissioning & training charges, If any.	Gross Total(FOR)
						Ex-Works. Ex-Warehouse, Ex-show room off the shelf price (inclusive of tax already paid) 4x6					
1											

Total Bid price in _____ in words.

Signature of Bidder :

Name :

Note:

The cost of optional items shall be indicated separately.

The bidder may add rows to include the prices of all components & warranties, installation etc. whichever applicable.

(a) Cost of spares _____

(b) Warranty if being charged include in B

ANNEXURES

A: CERTIFICATE (ON COMPANY LETTERHEAD)

CERTIFICATE BY BIDDER- DPIIT REGISTRATION

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 county, has been registered with the Competent Authority (copy of the Registration Certificate enclosed). I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.

Signature with Date and Stamp
Of the Bidder

B: PREVIOUS SUPPLY ORDERS FORMAT

Name of the Firm _____

Order placed by {Full address of Purchaser}	Order No. and Date	Description and quantity of ordered equipment	Value of order	Date of completion of delivery as per contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any and justification for price difference of their supply order & those quoted to us.	Has the equipment been installed satisfactorily?	Contact Person along with Telephone no., Fax no. and e- mail address.

Note: Purchase orders (preferably from the Govt. organizations) for whom similar supply has been made by the bidder in last three years.

Signature and Seal of the Manufacturer/ bidder

Place:

Date:

C: MANUFACTURER'S AUTHORIZATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that re binding on the Manufacturer]

Date: [Insert date (as Day, month and year) of Bid submission]

Tender No.: [Insert number from Invitation for Bids]

To: [Insert complete name and address of Purchaser]

WHEREAS

We [insert completer name of Manufacturer], who are official manufacturers of [Insert type of goods manufactured] having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following goods, manufactured by us [insert name and or brief description of the goods], and to subsequently negotiate and sign the contract.

We hereby extend our full guarantee and warranty in accordance with the Terms and Conditions of Contract with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____ [insert date of signing]

D: BIDDER INFORMATION FORM

Company Name : _____

Registration Number : _____

Registered Address : _____

Name of Partners /Project Director : _____

City : _____

Postal Code : _____

Company's Establishment Year : _____

Company's Nature of Business : _____

Company's Legal Status 1) Limited Company

(tick on appropriate option) 2) Undertaking

3) Joint Venture

4) Partnership

5) Others

Company Category 1) Micro Unit as per MSME

2) Small Unit as per MSME

3) Medium Unit as per MSME

4) Ancillary Unit

5) SSI

6) Others

CONTACT DETAILS

Contact Name : _____

Email Id : _____

Designation : _____

Phone No : (_____) _____ Mobile No : _____

BANK DETAILS

Name of Beneficiary : _____

A/c. No. CC/CD/SB/OD: _____

Name of Bank : _____

IFSC NO. (Bank) : _____

Enclose scan copy of cancelled Cheque.

Branch Address and Branch Code: _____

Other Details

Vendor's PAN No. _____

Vendor's GST No: _____x

Annexure-'E'

E: BLACKLIST CERTIFICATE
(to be provided on letter head of the firm)

I hereby certify that the above firm neither blacklisted by any Central/State Government/Public Undertaking/Institute nor is any criminal case registered / pending against the firm or its owner / partners anywhere in India.

I also certify that the above information is true and correct in any every respect and in any case at a later date it is found that any details provided above are incorrect, any contract given to the above firm may be summarily terminated and the firm blacklisted.

Date:

Authorized Signatory

Name:

Place:

Designation:

Contact No.:

Annexure-'F'

F: DECLARATION OF LOCAL CONTENT AND AVAILABILITY/COMPLIANCE OF EQUIPMENT

(To be given on company's letter head - For equipment value below Rs.10 crores)

(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for equipment value above Rs.10 crores)

Date: _____

To,
I-HUB Quantum Technology Foundation,
1st Floor, Main Building, IISER Campus,
Dr.Homi Bhabha Road, Pashan
Pune-411008

Sub: Declaration of Local content and availability/compliance of equipment

Item No.	Name of equipment	Currency (must be INR)	Local content %	Country of Origin	Comply/capable to provide (yes/no)
1					
2					
3					
4					

"Local Content" means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

*"*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law."*

Yours faithfully,

(Signature of the Bidder, with Official Seal)

G: BID SECURITY DECLARATION

(On company letter head)

To,

I-HUB Quantum Technology Foundation,
1st Floor, Main Building, IISER Campus,
Dr.Homi Bhabha Road, Pashan
Pune-411008

Subject: Bid Security Declaration

It has been certified that all information provided in tender form is true and correct to the best of our knowledge and belief. No forged / tampered document(s) are produced with tender form for gaining unlawful advantage. We understand that I-HUB QTF, IISER Pune is authorized to make enquiry to establish the facts claimed and obtain confidential reports from clients.

In case it is established that any information provided by us is false / misleading or in the circumstances where it is found that we have made any wrong claims, we are liable for forfeiture of EMD/SD and or any penal action and other damages including withdrawal of all work / purchase orders being executed by us. Further I-HUB QTF, IISER is also authorized to blacklist our firm/company/agency and debar us in participating in any tender/bid in future.

I / We assure the Company that neither I / We nor any of my / our workers will do any act/s which are improper / illegal during the execution in case the tender is awarded to us.

Neither I / We nor anybody on my / our behalf will indulge in any corrupt activities / practices in my / our dealing with the Company.

Our Firm/ Company/ Agency is not been blacklisted or banned by any Govt. Department, PSU, University, Autonomous Institute or Any other Govt. Organization.

I/We are accepting that if we withdraw or modify our bids during period of validity etc., we will be suspended for the period of six months to participate in any tender issued by I-HUB QTF, IISER Pune.

Date:

Signature of the Tenderer

Place:

Stamp

CHECKLIST FOR BIDDERS

BIDDERS to indicate whether the following are enclosed/mentioned by striking out the non-relevant option.

Sr. No.	Content	Document Attached	Please Fill page no's for respective document
1	Certificate By Bidder- DPIIT Registration as per Annexure-A	(Yes /No)	
2	Previous Supply Order Format as per Annexure-'B'	(Yes /No)	
3	Manufacturer's Authorization Form as per Annexure-'C'	(Yes /No)	
4	Bidder Information form as per Annexure-'D'	(Yes /No)	
5	Blacklist certificate as per Annexure-'E'	(Yes /No)	
6	Self-Declaration by the bidder As per Annexure –'F' that the items offered meet the local/Non local content requirement in pursuance of Public Procurement Preference to Make in India, Order 2017 (Please specify)	Class-I Class-II Non Local	
7	Bid Security Declaration as per Annexure-'G'	(Yes /No)	
8	List of deliverables as per Chapter- 4	(Yes /No)	
9	Undertaking that the successful BIDDER agrees to give a 3 % security deposit and Performance Bank Guarantee	(Yes /No)	
10	Self-Attested copy of GST Number (as applicable)	(Yes /No)	
11	Tender Terms & Conditions Acceptance signed with official seal is attached	(Yes /No)	
12	Price bid should be submitted along with bill of material	(Yes/No)	

IMPORTANT NOTICE

TENDERERS RESPONDING TO THIS ENQUIRY SHALL BE DEEMED TO BE AGREEABLE TO THE TERMS AND CONDITIONS HEREIN CONTAINED. THESE TERMS AND CONDITIONS SHALL BE BINDING ON THE SUCCESSFUL TENDERER. CONDITIONAL TENDERS ARE LIABLE TO BE REJECTED. I-HUB QUANTUM TECHNOLOGY FOUNDATION, IISER PUNE WILL PROCESS THE TENDER AS PER IT'S STANDARD PROCEDURES. THE PROJECT DIRECTOR OF I-HUB QUANTUM TECHNOLOGY FOUNDATION RESERVES THE RIGHT TO REJECT ANY OR ALL OR PART OF TENDER WITHOUT ASSIGNING ANY REASON AND SHALL ALSO NOT BE BOUND TO ACCEPT THE LOWEST TENDER. I-HUB QUANTUM TECHNOLOGY FOUNDATION, IISER PUNE WOULD NOT BE UNDER ANY OBLIGATION TO GIVE ANY CLARIFICATIONS TO THE AGENCIES WHO'S BIDS ARE REJECTED.

I agree to all terms and conditions mentioned in the tender document of the Company.

Signature of the Tenderer