

## **To whom it may concern**

This is a **Request for quote (RFQ) from domestic (India-based) manufacturers only** for procurement of ***Optical Lens and System Design Software*** at the Department of Electrical Communication Engineering (ECE), Indian Institute of Science (IISc), Bangalore.

All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below. Quotation should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor. The quotations should be on FOR-IISc Bangalore basis in INR only.

With respect to this tender, the rules laid out by the Government of India in order No. P45021/2/2017-pp-BE-II issued by the Public Procurement Section, Department or Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 4<sup>th</sup> June 2020 will be followed. As per this order, the government has defined a 'Class-I local supplier' as "a supplier or service provider whose goods, services or work offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". Only Class-I and Class-II local suppliers are eligible to participate in this open domestic tender. Any "Non-local supplier" i.e. "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.

Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.

Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to the Class-1 supplier.

MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.

The deadline for submission of proposals is **8th July 2025 by 5:00 PM**. Proposals should arrive at the office of **Dr. Varun Raghunathan, Department of Electrical Communication Engineering, Indian Institute of Science, Bangalore, Karnataka 560012, India**.

Direct all questions concerning the acquisition to **Dr. Varun Raghunathan** at: **varunr@iisc.ac.in**.

### **General Terms and Conditions:**

1. The bid should be submitted in the two-cover system, i.e. technical bid and commercial bid separately in sealed covers. The technical bid should contain all commercial terms and conditions, except the price.
2. The technical bid must contain a point-by-point technical compliance document. The technical proposal should contain a compliance table that should describe your compliance in a "yes" or "no" response against each of the items in the table listed in this RFQ. If "no" the second column should state the extent of deviation. The third column should state the reason for the deviation, if any. The fourth column can be

used to compare your tool with that of your competitors or provide details as requested in the technical requirement table below.

3. In the commercial bid, the price should be inclusive of all discounts.
4. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
5. The covering letter should clearly state the whether the vendor is a Class-I or Class-II local supplier. Failing this the bid will be automatically rejected.
6. The vendor to state the percentage of the local content and provide self-certification that the item offered meets the minimum local content requirement. They should also give details of the location(s) at which the local value addition is made.
7. The lead time for the delivery of the equipment should not be more than 3 months from the date of receipt of our purchase order. It should be clearly mentioned in the technical and commercial bids.
8. All the quotations must be valid for at least 90 days at the time of submission.
9. List of customers and references: The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISC, IISER, NIT) . Please provide the details and contact information.
10. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect should be provided.
11. Items in addition to that listed in the technical table that you would like to bring to the attention of the committee, such as data sheets, technical plots etc. can be listed at the end of the compliance table.
12. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
13. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
14. The Institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of contract without thereby incurring any liability of the affected bidder or bidders.
15. Warranty terms and additional warranty options is a must for all the components. Please specify the service plan like whether the local distributor will address the issue or the parent company.
16. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
17. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
18. Please quote the price of each optional line item, separately.

**Technical requirements:**

Please note that the requirements and options listed below are only guidelines. It does not disbar bids that do not meet the criteria listed. Vendors are requested to quote for equipment that meet the criteria to the best extent possible and list deviations. Deviations are NOT an automatic reason for disqualification. They will be discussed by the purchase committee prior to making an informed decision.

<b>Technical Specifications</b>	<b>Values/ Range/ Capabilities</b>
<b>Description</b>	<b>Optical Lens and System Design Software</b>
No. of licenses	Five
Type of licenses	Floating (with remote access through a license server)
Duration of license	Atleast 5 years
Solver capabilities	Sequential and non-sequential ray-tracing, Monte Carlo direct and inverse simulations for lens and optical system modelling to be included.
Material properties	Dispersion effects and Ambient material effects to be included
Scattering properties	Surface and volume scattering modelling capability to be included
Spectral properties	Spectral propagation capability to be included  Wavelength range for design: visible (360-830 nm), UV (100-360 nm), Near IR (830-2500 nm) and Far IR (2500-100000 nm)
Number of parallel application instances per license	Atleast 8
Parallel simulation capability	To be included
Advanced Ray-tracing functionalities	Polarization, graded index, birefringence ray-tracing capabilities to be included
Phosphor and fluorescence modelling capability	To be included
Rigorous coupled-wave analysis (RCWA) modelling capability	1D and 2D RCWA modelling to be included
Photometric and Radiometric analysis capabilities	Intensity, 2D and 3D illuminance./ irradiance, luminance/ radiance, 3D energy density analysis to be included
Optical sources	To include: surface source (with variable exitance), interactive discrete source, ray file source, luminaire source, source group and thermic source
Data libraries	Design templates, stock lens catalog, optical and mechanical data for materials, coating catalog, test plates, luminaire source data, spectral data to be included
Optimization capability	DoE, sliders and visual optimizers, design, local global, material substitution, contrast and high-yield

	optimization to be included.
Tolerancing capability	Sensitivity, monte carlo, quick-yield, tolerance data viewer/ analysis, composite surface and mechanical pivot points to be included
Imaging system design capability	Max. field points for aspherical and free-form optics to be specified. Ray aiming, aspherical, freeform, diffractive, stock lens matching tool and composite surface optics to be included
Imaging system analysis capability	Image quality/ simulation analysis, full-field aberration analysis to be included
Laser and fiber input options	Gaussian beams, laser diode modelling, user-defined beam profiles, single-mode/ multi-mode fiber coupling, $M^2$ and beam quality analysis and physical optics propagation to be included.
Stray light analysis capability	Ghost focus generator, ray splitting/ scattering, importance sampling, measured surface scattering data, layer by sequence/ path analysis to be included.
Multiphysics simulation and analysis capability	Thermal changes to refractive index, finite element analysis tools, deformation plots, thermal index plots, direct index fitting, stress birefringence modelling to be included.
Customization and automation options	Script based automation, user-defined surface, object and sources, scatter plots to be included.
Application programming interface (API) capability	Headless solver, MATLAB, python, COM and .NET interoperability to be provided
Tool interoperability	Export/ import capability with other software tools to be specified
CAD interoperability	Export/ import capability with other software tools to be specified
Additional software capability	Additional capability to perform system level modelling for end-application to be specified.

### **Other requirements:**

1.	Detailed list of specifications and user manual/ links to online manual and tutorials to be included with the software at the time of delivery
2.	Compatible operating system(s) for the software should be specified. Suitable software drivers and installation instructions should be specified and made available
3.	Please include other options currently available which can be added
4.	Cost of shipping if any to Indian Institute of Science, Bangalore should be included
5.	Warranty and technical support terms to be specified in the commercial proposal and is subject to negotiations
6.	Payment terms to be specified in the commercial proposal and is subject to negotiations
8.	List of acceptance tests for on-site (vendor) inspection and after installation at IISc should be provided
10.	Please provide details of the number of trained technical personnel in India, number in southern region or in Bangalore who can help with the technical support
11.	Service credentials: The supplier should have provided at least five similar software

	systems in India. Customer list with contact details mandatory to prove your credential
12.	Authorisation letter from the principal and proprietary certificate to be included
13.	Vendor must provide complete compliance statement against each technical point

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