Global Tender Notification for Purchase of 2 nos. of Unbalanced Fibre-based Mach-Zehnder Interferometer

GTE Approval No: IISc-GTE-2022-185

This is a **Request for quote (RFQ)** for procurement of ***2 nos. of Unbalanced Fibre-based Mach Zehnder Interferometers with integrated fibre stretcher for delay tuning*** at the department of Electrical Communication Engineering (ECE), Indian Institute of Science, Bangalore.

All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below. The deadline for submission of proposals is **28th July 2022 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 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.
5. All the quotations must be valid for at least 90 days at the time of submission.
6. List of customers and references: It is preferable for the Bidder should have supplied similar equipment in centrally Funded Technical Institutes (IITs, IISC, IISER, NIT). Please provide the details and contact information.
7. 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.
8. 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.
9. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
10. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.

11. 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.
12. 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.
13. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
14. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
15. 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.

Technical Specifications	Values/ Range
Equipment description	Unbalanced Fibre-based interferometer
Quantity	2 nos.
Operating wavelength	1550 nm +/- 15 nm
Fibre type	PM or SM fibre
Connector type	FC/APC
Number of inputs	One
Number of outputs	Two
Optical loss	≤ 6 dB from input to each output
Optical return loss	≥ 60 dB
Internal Fibre coupler specification	50:50 splitter
Optical power limit	≥ 500 mW
Phase mismatch (without delay)	Zero delay +/- 10 cm (max)
Path length difference (fixed delay)	3 meters
Delay tuning mechanism	Piezo based fibre stretcher
Tuning sensitivity	≤ 0.8 rad/V
Maximum applied voltage range for tuning	+/- 500 V, to specify the operating voltage as a function of drive frequency
Delay tuning bandwidth	≥ 80 KHz
Delay tuning electronic interface	BNC connector
PC interface	USB 2.0 or better
Cables, Connectors etc.	To be included
User interface software	To be included, if any
Driver software	Labview, MATLAB etc. to be included, if any
Weight and dimensions of the equipment	To be specified

Other requirements:	
1.	To perform installation at customer site or provide instructions for installation, as applicable.

4.	Supplier should agree to provide Performance test reports prior to dispatch of goods.
5.	Compatible operating system(s) for the interface software should be specified, if any.
6.	Please include other options currently available which can be added on in the future.
7.	The cost of shipping to IISc should be included.
8.	List of acceptance tests for on-site (vendor) inspection and after installation at IISc.
9.	A set of basic experiments for performing routine checks of acceptable operation with clear instructions to be provided.
10.	The payment terms will be specified in the commercial proposal and is subject to negotiations.
11.	Please provide details of the number of trained personnel in India, number in southern region or in Bangalore who can service the instrument.
13.	Authorisation letter from OEM manufacturer to be included
14.	Vendor must provide complete compliance statement against each technical point.

Varun Raghunathan
Assistant Professor
ECE department
Indian Institute of Science
Bangalore, Karnataka 560012
varunr@iisc.ac.in
Phone: +91-80-2293-3473