## To whom it may concern

This is a Request for quote (RFQ) from domestic (India-based) manufacturers only for procurement of 6 nos. of 50 km single-mode fibre spools 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. 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. The Bidder should belong to either Class-1 or Class-2 suppliers distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter. a) Class-1 supplier: Goods and services should have local content of equal to or more than 50%. b) Class-2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.

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 14th August 2023 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 after sales support 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 product 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. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
- 17. 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 technical committee prior to making an informed decision.

<b>Technical Specifications</b>	Values/ Range
Fibre type	Single mode fibre (G.652 fibre or similar)
Quantity of fibre spools	6 nos.
Fibre length	50 km +/- 0.01 km each
Wavelength range of interest	1310 nm and 1550 nm +/- 25 nm
Cut-off wavelength	<= 1200 nm
Numerical Aperture	0.14
Attenuation coefficient	@ 1310 nm: <= 0.34 dB/km @ 1550 nm: <= 0.2 dB/km
Bend losses	<= 0.01 dB for 100-turns on 25-mm mandrel at 1550 nm
Dispersion coefficient	@ $1310 \text{ nm}$ : <= $3.5 \text{ psec/km-nm}$
	@ 1550 nm: <= 18 psec/km-nm
Zero dispersion wavelength	Near 1310 nm
Zero dispersion slope	$\leq 0.09 \text{ psec/km-nm}^2$
Polarization mode dispersion	<= 0.04 psec/km
Mode field diameter	@ 1310 nm: 9 micron +/- 1 micron @ 1550 nm: 10 micron +/- 1 micron
Cladding diameter	125 micron +/- 1 micron
Cladding non-circularity	<= 1%
Coating diameter	240 micron +/- 10 micron
Coating non-circularity	<= 5%
Short term bend radius	>= 6 mm
Long term bend radius	>= 13 mm
Temperature dependence of attenuation	$<= 0.05 \text{ dB/km for } -60^{\circ}\text{C to} + 60^{\circ}\text{C}$
Temperature-humidity cycling induced attenuation	$<= 0.05 \text{ dB/km for } -10^{\circ}\text{C to } 80^{\circ}\text{C}$
Output connector type	FC/APC connectors to be included
Enclosure for fibre spool	To be included

Other requirements:	
1.	The cost of shipping to IISc should be included.
2.	Test report listing the measurement results of the length, loss measurements at the
	wavelengths specified above to be included
3.	List of acceptance tests for on-site (vendor) inspection and after installation at IISc
4.	The payment terms will be specified in the commercial proposal and is subject to
	negotiations
5.	Please provide details of the number of trained personnel in India, number in
	southern region or in Bangalore who can service the instrument
6.	Service credentials: The supplier should have at least five similar installation in
	India. Customer list with contact details mandatory to prove your credential
7.	Authorisation letter from OEM manufacturer to be included
8.	Vendor must provide complete compliance statement against each technical point.

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