

## To whom it may concern

This is a **Request for quote (RFQ) from domestic (India-based) manufacturers only** for procurement of time correlated single photon counter (TCSPC) and associated software 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.

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.

The deadline for submission of proposals is **23<sup>rd</sup> February 2021 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](mailto: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 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.

Time-correlated single-photon counter (TCSPC)	
Technical Specifications	Values/ Range
Number of Channels	4 (inputs), 4 (outputs for ext. trig.)
Clock rate	$\geq 1$ GHz
Time bin width	10-100 picoseconds
Timing jitter	< 30 picoseconds
Dead time	< 5 nano seconds
Maximum data processing	> 100 Million Events/second per channel
Input voltage range	$\pm 2.5$ V maximum
Input pulse delay	1 picosecond to 1 millisecond (step size to be specified)
Discriminator levels	$\pm 2$ V maximum (step size to be specified)
Output pulse format	TTL/ NIM (pulse width to be specified)
Output pulse frequency	$\geq 125$ MHz

Output pulse delay	100 picoseconds to 1 millisecond (step size to be specified)
Maximum data transfer rate	$\geq 100 \text{ MEvents/sec}$
Latency between input and output	Any latency between input and output to be specified
Software to control and process data from the TCSPC	Must be included with capabilities for controlling, time-stamping, histogramming and programming
Any cables, connectors or other accessories required to connect the TCSPC to the single-photon detectors	Must be included
Warranty	Atleast 1 year

<b>Other requirements:</b>	
1.	Compatible operating system(s) for the interface software should be specified. Suitable software drivers available should be specified.
2.	Please include other options currently available which can be added on in the future.
3.	Training and installation: Different options for training and installation by service engineer to be listed and quoted.
4.	The cost of shipping to IISc should be included.
5.	List of acceptance tests for on-site (vendor) inspection and after installation at IISc.
6.	A set of basic experiments for performing routine checks of acceptable operation with clear instructions to be provided.
7.	The payment terms will be specified in the commercial proposal and is subject to negotiations.
8.	Please provide details of the number of trained personnel in India, number in southern region or in Bangalore who can service the instrument.

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