

Global Tender notification for a “software-controlled Autocorrelator”

Ref: PH/SBM/522/2021-22

Date: 20/06/2022

This is a notice inviting global tenders for a “**software-controlled Autocorrelator**” (referred to as equipment or system in this document) that will be utilized for optics experiments, i.e., pulse width measurements. The required technical details, including terms and conditions, are provided below. The last date of reaching the quotation to us is mentioned below.

Specifications:

1. A compact (all-in-one), portable and software-controlled autocorrelator is required for the characterization of ultrafast laser pulses
2. Operational wavelength range: ≤ 750 nm to ≥ 1100 nm
3. Pulse width range: The system should be capable to measuring laser pulse widths ranging from <60 fs to ≥ 15 ps (fs \equiv femtosecond, ps \equiv picosecond).
4. Pulse repetition rate (PRR): The system should operate in the pulse repetition range of 1 kHz to 500 kHz
5. Sensitivity (\equiv Average Power x Peak Power of the incident pulses): at least 1 W^2 . Sensitivity of $<0.1 \text{ W}^2$ is preferred (quote separately)
6. Time resolution: A high time resolution of ≤ 60 attoseconds is required
7. Input mode: Free space input beam coupling with >5 mm aperture is required
8. A calibration certificate is required
9. A complete factory set integrated system is required – i.e., all components should be integrated as one unit. Testing and documentation should be done using the complete system i.e., after assembling all components.
10. Input beam polarization: Linear is preferred
11. Quote separately for a polarization rotator
12. Measurement mode: Switchable non-collinear intensity and collinear interferometric autocorrelation is preferred
13. The system should be capable of withstanding 10 micro-J pulse energy near 1 kHz PRR from an amplified laser system
14. Software requirements:
 - a) Plug and play installation, easy to use
 - b) Fast data acquisition, data fitting and processing
 - c) Real-time display of the pulse width
 - d) Pulse fitting functions: Gaussian, Sech² and Lorentzian
 - e) Display central wavelength of the laser pulses
15. Operating voltage, frequency: 220 VAC, 50 Hz

16. Operation temperature: 20 deg C to 30 deg C
17. All accessories such as necessary software, controller, connectors, adapters, cables etc. required for the independent operation of the device should be included
18. Installation should be performed on site
19. The vendor/company and/or their associate (agent) in India should provide after-sales service, full support, and repair if required.

20. Include pictures of the exact system being offered

21. Warranty: 1 years [onsite repair is preferred] from the date of installation. Quote for extending the warranty period for an additional one (i.e., total of two) year and an additional two (i.e., total of three) years.

Terms and conditions:

1. The bid should be submitted in a 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 specification. If "no" the second column should mention the extent of the 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. **Tender documents without technical compliance documents will not be considered.**
3. In the commercial bid, the price should be inclusive of all discounts.
4. The vendor/company should have a track record of having previously supplied **at least five similar equipment** (i.e., software-controlled autocorrelator) in India in the past five years (please furnish the details). It would be desirable to provide two reference letters from customers in India.
5. The vendors quoting should ideally be registered with IISc, and the quote should ideally carry the vendor registration number in the bid.
6. Lead time should be clearly mentioned in the technical and commercial bids.
7. The offer shall be valid at least 90 Days from the date of opening of the commercial bid.
8. The vendor/company should have existence for a minimum of 3 years. (Enclose Company Registration Certificate).
9. The vendor/company must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere.

10. The quotations should be on C.I.P. Bangalore basis (by Air Freight only). Please provide Itemized cost of the system and required accessories. The quotation should mention the terms of delivery, delivery schedule, estimated delivery date, and payment terms.
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. Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:
 - a. To accept OR reject lowest tender or any other tender or all the tenders.
 - b. To accept any tender in full or in part.
 - c. To reject the tender, offer not confirming to the tender terms.
13. The tender documents can be sent at the following address by post or in-person, and the document should reach us on/before **13 July 2022**.

The Chairman
Department of Physics
Indian Institute of Science,
Bangalore 560012, Karnataka, India
Attention: Seababrata Mukherjee