

# INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B Raja S.C.Mullick Road, Jadavpur, Kolkata 700032

NIT No. : IACS / CAM / Dr. S. Acharya / 2016-17 / 06 Dtd. 20/05/2016

## ***Sub: "Light Emitting Diode Property Measurements Set-up"***

**Sealed tender in a two-bid system (Technical Bid & Price bid) is invited from bonafide, resourceful and eligible manufacturers/exclusive distributors of "Light Emitting Diode (LED) Property Measurements Set Up".**

**Requirement:** A set up is required for the measurement of LED characteristics such as Luminance ( $\text{cd/m}^2$ ), Chromaticity coordinates (CIE), color rendering index (CRI), Correlated color temperature (CCT) measurements. The set up should contain interfacing software with graphics control to a PC for all the parameters mentioned above. The LED device would be measured in solid state and the system should be capable of measuring solid state devices.

### **Tender Process:**

Part I (Technical Bid) of the tender should contain technical details and terms and conditions and Part II (Price Bid) should indicate price as mentioned in the Technical Bid where applicable. The Technical Bid and Price bid are to be submitted in two separately sealed envelopes distinctly marked accordingly and both to be put inside another sealed envelope super-scribed with tender notice number and due date. The bidders may submit bids duly signed in their own letter heads.

Complete tender bids should reach the office of the **Centre for Advanced Materials, Indian Association for the Cultivation of Science, 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** or on before the scheduled date & time specified below.

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| <b>Tender Notice Number</b>                                | IACS / CAM / Dr. S. Acharya / 2016-17 / 06 Dtd. 20/05/2016  |
| <b>Last date and time of submitting tender</b>             | 11 June 2016, 4 p.m.  |
| <b>Pre bid meeting to discuss technical specifications</b> | 2 June 2016, 1 p.m.   |
| <b>Date and time of opening tender</b>                     | 14 June 2016, 3 p.m.  |
| <b>Price Bid opening Venue</b>                             | The Price bids of only technically qualified bidders will be opened. The date of opening the Price Bids will be intimated to the short-listed bidders at their contact address. |
| <b>Place of Opening Tender</b>                             | S. N. Bose Hall, IACS   |
| <b>Contact</b>   | Dr. S. Acharya: <a href="mailto:camsa2@iacs.res.in">camsa2@iacs.res.in</a>  |

The technical bids will be opened first to evaluate the technical specifications of the equipment. It will be evaluated in the presence of technical committee members. Bidders are encouraged to participate in the technical bids to clarify technical aspects of their bids.

Thereafter, the Price bids of only technically qualified bidders will be opened. The date of opening the Price Bids will be intimated to the short-listed bidders at their contact address. The rest of the bids will be rejected.

### **A) TECHNICAL BID:**

The LED set up should have a state-of-the-art design for use to analyze various kinds of light emitting samples (molecules and nanomaterials) towards higher end research. The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as Technical Bid on the outer side of the envelope as detailed above.

### **TECHNICAL Specifications for “Light Emitting Diode Properties Measurements Set Up (LED)”**

1. It should measure the Luminance of the device under test. Luminance measurement range should be at least  $0.05 \text{ cd/m}^2$  to  $100,000 \text{ cd/m}^2$ .
2. Luminance accuracy should be at least  $0.05 \text{ cd/m}^2$
3. The instrument should have the capability to measure the **luminance** properties from extremely low emissive devices.
4. The instrument should also have the capability to measure the LED properties such as Luminance ( $\text{Cd/m}^2$ ), Color rendering index (CRI), Chromaticity coordinates (CIE), Correlated color temperature (CCT), Emitting color measurements etc. from small devices (typical device area is  $\sim 1 \text{ mm} \times 1 \text{ mm}$ ).
5. Measurement should be performed at very close distances from LED devices.
6. The system should use advanced calibrated photo detector having high accuracy.
7. Any other accessories required for measurement using LED set up such as focusing lenses, sample stages should also need to be quoted.
8. Suitable Data Acquisition Software must be included in the system configuration and should measure all the parameters with help of this software. Software capable of measuring External quantum efficiency (EQE), Current efficiency ( $\text{cd/A}$ ), power efficiency ( $\text{lm/W}$ ), will be preferred.
9. Total price should be inclusive of all accessories and taxes.
10. Calibration accessories required for the LED set up should also be included in the price quoted.

**Warranty: At least Twelve months against any manufacturing defect.**

**Installation:** Free of Cost

**Training:** Free of Cost

**User list:** The supplier may preferably provide a list of current users (with contact no, Email address etc) for the quoted item in India.

### **B) PRICE BID:**

The financial bid should be super scribed as “Price Bid” on the outer cover of the envelope.

1. **Price Bid:** The price bid indicating (item-wise) price or price in a whole for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super-scribed as “PRICE BID” on the outer cover of the envelope as already detailed above. The price bids of only technically qualified bidders will be opened.
2. **Price:** Price to be quoted both on FOB/CIF basis for foreign currency or in Indian currency. Price in FOB will be preferred. Name of the particular port from where our institutes authorized forwarder will collect the consignment must be mentioned clearly with FOB price.
3. **Bid Security (EMD):** An Account payee Demand Draft/Pay Order for Rs. 50,000/- (Rupees fifty thousand only) drawn in favour of “Indian Association for the Cultivation of Science” is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). The Demand Draft for the Bid-Security money should have at least 45 (forty five) days validity period after the

opening of the Bids. In case of non-award of the work, the Bid Security money would be returned to the unsuccessful Bidders.

4. The Demand Draft for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.

5. In case of non-award of the work, the Bid Security money would be returned to the unsuccessful Bidders.

6. **Performance Security:** Performance security 5 % of the value (in INR) of the instrument in the form of a bank guarantee or demand draft with a validity for a period of 60 days beyond the expiry of the warranty period. Bid security money will be refunded to the successful bidder on receipt of the Performance Security.

**(C) General Instructions:**

1. Incomplete & conditional tenders, or tenders not fulfilling the compliance and tenders received after the due date will be summarily rejected without assigning any reasons thereof.

2. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the Institute website. Prospective bidders are advised to occasionally visit the website ([www.iacs.res.in/tender](http://www.iacs.res.in/tender)) for any amendment.

3. Payment: Letter of credit, RTGS or 100% after installation, as applicable. For payment through Letter of Credit or RTGS, 90 % to be released against shipment and balance 10 % against successful installation subject to submission of Performance Security.

4. Installation/Demonstration /Application Training at site: Free of cost by the supplier

5. Service facility: Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours.

6. The tender submitted shall remain valid at least for three months from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.

7. The tender should accompany a compliance chart. A technical compliance chart should also be provided following the given format:

Serial Number Tender Specification of your offered instrument Extent of compliance

8. Taxes, if any, should be specified clearly.

9. The model number, make, and a printed literature of the product have to be submitted with the technical bid.

10. Proposed delivery schedule should be mentioned clearly.

11. Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organizations.

12. Authorized Dealership Certificate is mandatory in case a principal manufacturing company is not quoting directly.

13. Guarantee certificate, users manuals etc. are to be handed over to the user after successful

commissioning of the system.

14. Incomplete tenders will be summarily rejected.

15. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of technical bids will be the following working day at the appointed time.

16. Acceptance of Tender: IACS authority does not bind itself to accept the lowest tender and reserves the right to reject any or all the tenders received without assigning any reason thereof.

17. Please note that IACS will not provide any accommodation or expenses to any of the bidders for attending opening of technical bid/price bid.

**ACTING REGISTRAR**