



INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
Chennai 600 036

Telephone: [044] 2257 9763  
E-mail: tender@imail.iitm.ac.in



The Manager (Project Purchase)

Date: 19.06.2023

Tender No: AE/CHAK/02/2023/LASERSYS

**Due Date: 10/07/2023, 5.00 PM**

**Pre-Qualification Bid Opening: -11/07/2023, 3 PM**

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, Expression of Interest is invited for

**“Supply of CUSTOM-DESIGNED 200W LASER SYSTEM”**

conforming to the specifications

**Instructions to the Bidders:**

- 1. Vendor Registration in IC&SR Portal:** - The Expression of Interest should be submitted along with Vendor registration code. **Vendor registration with IC & SR (IIT M) is mandatory for bidders to participate in tenders.**

**\*\* For Vendor Registration & Guidelines,**

**Please follow the website:** <https://icandsr.iitm.ac.in/vendorportal> ;

Helpdesk: [vendorhelpdesk@icsrpis.iitm.ac.in](mailto:vendorhelpdesk@icsrpis.iitm.ac.in)

- 2. Submission of Tender:** - The Expression of Interest documents shall be sent to the address mentioned below, either by post or by courier (**duly sealed and super scribed on the envelope with the Vendor Email ID, Contact Number, tender reference No and due date & time**) so as to reach our office before the due date and time specified in our schedule. The offer/bid can also be dropped in the tender box on or before the due date and time specified in the schedule.

The tender box is kept in the office of the:

**The Manager, Project Purchase,**

**IIT Madras, Sardar Patel Road, IC & SR Building, 1<sup>st</sup> floor, Chennai – 600 036**

- 3. EMD:** - The EMD of **Rs. 80,000/-** should be transferred to the account details mentioned in Annexure 8 and proof should be enclosed in the Pre-Qualification Bid. Any offer not accompanied with the EMD shall be rejected summarily as non-responsive.

The EMD of the unsuccessful bidders shall be returned within 30 days of the end of the publishing the result of Pre-Qualification Bidding. The same shall be forfeited, if the tenderers withdraw their offer after the opening during the bid validity period. The Institute shall not be liable for payment of any interest on EMD.

EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) and Startups as recognised by Department of Industrial Policy & Promotion (DIPP). **(MSE/MSME/DIPP PROOF should be enclosed in the cover containing Pre-Qualification bid).**

- 4. Indian agent:** If an Indian agent is involved, the following documents must be enclosed:  
Foreign principal's proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.
- ✓ A Copy of the agency agreement with the foreign principal and the precise relationship between them.
  - ✓ For the same tender, either the Principal / OEM directly or their authorized agent, dealer / service provider in India can only quote. Both of them cannot bid separately for the same tender.
- 5. Validity:** The validity of Quotation **should be not less** than 90 days from the due date of tender.
- 6. Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
- 7. Late offer:** - The offers received after the due date and time will not be considered. The Institute shall not be responsible for the late receipt of Tender on account of Postal, Courier or any other delay.
- 8. Acceptance and Rejection:** - I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

**9. Debarment from Bidding:** In case of breach of Terms & Conditions, Bidder may be suspended from being eligible for bidding in any contract with the IIT Madras up to 2 Years [as per Rule 151(iii) of GFR] from the date of Tender.

**10. Disputes and Jurisdiction:**

**Settlement of Disputes:** Any dispute, controversy or claim arising out of or in connection with this PO including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate an arbitrator. The Dean IC&SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceeding shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&SR IIT Madras, Chennai.

a. **The Applicable Law:** The Purchase Order shall be construed, interpreted and governed by the Laws of India. Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.

b. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.

**11.** All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the **CPP Portal (e-publishing)** to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

**12. As per the Government of India Order, only “Class - I Local Suppliers” and “Class - II Local Suppliers” can participate in this tender. Local Content declaration to be submitted as per Annexure 3.**

**Bidder should confirm their acceptance that they comply with the provisions with report to “Guidelines for eligibility of a bidder from a country which shares a land border with India as detailed at Annexure-IV. The bidder should submit Certificate for “Bidder from/ Not from**

**Country sharing Land border with India & Registration of Bidder with Competent Authority” as per Order of DoE F.No.6/18/2019-PPD dated 23.07.2020 as mentioned.**

**13. Selection of Successful bidder and Award of Order - Evaluation and Award of contract will be done as per GOI MOCI Order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P-45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021 and any subsequent modifications/Amendments, and latest orders if any.**

**14. Preference to “class 1 Local Suppliers”:** preference will be given to “class 1 local suppliers” (subject to class -I local supplier’s quoted price falling within the margin of purchase preference ) as per public procurement (preference to make in India) order 2017 .O.M No P- 45021/2/2017 – pp(BE - 11) dt 04/06/2020 subject to the conditions that the “class 1 Local Supplier” should agree to supply goods / provide service at L1 rate and furnish a certificate with the technical bid document that the goods/service provided by them consists local content equal to or more than 50%.( certificate from Chartered Accountant in case value of contract exceeds Rs 10 crore).

- **‘Class - I local supplier’** means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to or more than 50% as defined under the above said order.
- **‘Class - II local supplier’** means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to 20% but less than 50% as defined under the above said order
- **‘Margin of purchase preference’:** - The margin of purchase preference shall be 20%. The Definition of the margin of purchase preference is defined in the govt. of India Order No: **P-45021/12/2017-PP (BE-II) Dt.4th June, 2020) Order 2017. As per the Government of India Order – “Margin of Purchase Preference” means the maximum extent to which the price quoted by a “Class-I local supplier” may be above the L1 for the purpose of purchase preference.**

**\*\*Note: Local content percentage to be calculated in accordance with the definition provided at clause 2 of revised public procurement preference to Make in India Policy vide Gol Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P- 45021/102/2019-BE-II-Part (1) (E-50310) Dt.4th March 2021**

**Acknowledgement:** - It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

Yours sincerely,  
**The Manager (Project Purchase)**  
I.I.T. Madras, IC&SR Building, Chennai – 600 036.

**SIGNATURE OF TENDERER  
ALONG WITH SEAL OF THE  
COMPANY WITH DATE**

## **Expression of Interest for the Supply of CUSTOM-DESIGNED 200W LASER SYSTEM**

### **1. Scope of project and requirements of laser system:**

The Expression of Interest is for the **Supply of CUSTOM-DESIGNED 200W LASER SYSTEM**. In the solid propellant ignition transient studies, a maximum heat flux of 15 to 20 MW/m<sup>2</sup> is applied on the propellant surface during burning. Due to this incident heat flux, significant variation is observed in the flame spread rate between the window bomb experiment and BEM motors. In the literature survey, a maximum heat flux of 3.14 MW/m<sup>2</sup> is required, as the source for testing the flame spread rate. The maximum size of the ingredients used in the propellant is 550 µm. To calculate the average flame spread rate, it should be measured to cover the minimum of 10 particles, which requires the propellant length around 11mm - 12mm. Therefore, the beam diameter should have a minimum value of 12mm to 15mm. In order to achieve the mentioned power density for the 12mm propellant length, the power of the laser beam available at the propellant surface should be 120 watts. Considering the loss of power due to the laser traveling through 25mm thick quartz material and 80mm - 90mm inside the window bomb as well, it is necessary to use an IR range laser with low divergence to avoid heat flux loss. A power supply of 150 watts to 200 watts is required. The laser should be tunable since we need to study the flame spread rate at various heat flux ranges. The power supplied by the laser should be continuous, making a continuous wave (CW) laser preferable.

### **2. Pre-Qualification Criteria:**

- a. The supplier shall have the capability to supply the Laser system to meet the following specifications, Power requirement: 150W to 200W continuous wave output, Beam diameter: 12mm - 15mm, Flat-topped beam (uniform intensity across the beam profile), Diode pumped, low divergence beam, IR tunable power to be transmitted to material inside a chamber through a custom Quartz disc. Relevant documentation proof can be submitted.
- b. The supplier shall provide details of Minimum of 3 previous supply orders in last 5 years for High Power Continuous Wave Output Lasers along with contact details of end user as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.
- c. The bidder shall not be from a country sharing land border with India and if the bidder is from a country sharing land border with India the bidder should have been registered with the competent authority as per orders of DIPP OM No. F. No. 6/18/2019-PPD dated 23rd

July 2020, and MoCI Order No. P-45021/112/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration shall be submitted with the bid as per format given in Annexure – 4.

- d. The bidder should submit of Earnest Money Deposit (EMD) as per guidelines given in sl no. 3 in the “Instructions to the bidders”.
- e. The bidder should submit “Declaration for non-debarment of bidders” as per Annexure 5
- f. The Bidder should have a minimum turnover of Rs. 50 Lakhs in any one of the last 3 financial years (i.e., 2019-20, 2020-21, 2021-22). (documentary proof should be submitted)

### **3. Bid submission process:**

- a. **Stage 1-** Submission of Expression of Interest – Pre-qualification bid document. The bidder should submit Pre-Qualification bid as per the proforma given in Annexure-2 with the documentary proof.
- b. **Stage 2-** Technical bid and price bid submission (2 Cover bid)  
Stage 1 qualified bidders will be provided with the technical bid (Specifications of laser system) and price bid format. The stage 1 qualified bidders shall submit the technical bid and price bid in the proforma prescribed.

### **4. Bid Evaluation Process**

#### **Stage 1:**

The Pre-Qualification criteria will be evaluated in the first stage. Bidders who have qualified the Eligibility Criteria will be declared as Stage 1 qualified Bidders

#### **Stage 2:**

Stage 1 qualified bidders will be provided with the technical bid (SPECIFICATION) and price bid format. The stage 1 qualified bidders shall submit the technical bid and price bid in the proforma prescribed within the stipulated timeline given in the RFP. The bidders technical bid will be opened first and Technically qualified bidders will be recommended for Financial bid opening.

#### **Stage 3:**

Price bid of the technical qualified bidder in stage 2 will be opened and evaluated to arrive L1.

The unopened Price bid of the technically disqualified bidders will be returned to the bidders.

#### 5. Price:

The price should be quoted in net per unit (after breakup) and must include all packing, transit insurance and delivery charges to the **Department of Aerospace Engineering IIT Madras**.

- a. Only INR price bids are allowed.
- b. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties, packing charges, forwarding charges should be clearly indicated separately.
- c. IIT Madras is eligible for concessional custom duty (not exceeding 5.5%) and the price should be quoted with detail break up. IIT M - ICSR will provide all necessary documents for customs clearance of consignment including Customs Duty Exemption certificate etc.

#### 6. Delivery terms

The tenderer should indicate clearly the time required for delivery of the item (subject to the approval of the Executive Committee-IIT-Madras). In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.

In the event of **delay or non-supply of materials/execution of Contract** beyond the date of delivery/completion of job. The penalty will be levied @1% per week of delay subject to a max of 10% of the value of purchase order and if the delay is more than accepted time frame by IIT M, the PO would be cancelled and liquidated damages will be enforced.

#### 7. Payment Terms:

- (i) No Advance payment will be made for Indigenous purchase. Payment will be made 90% against delivery and 10% after Installation.
- (ii) **Advance Payment:** No advance payment is generally admissible. In case a specific percentage of advance payment is required, the Vendor has to submit a Bank Guarantee from a scheduled commercial bank in India equivalent to the amount of advance payment. In case of an advance payment request, Please, inform in the financial bid as an additional sheet.



**ANNEXURE 1**

<b>S.NO</b>	<b>SPECIFICATION</b>	<b>COMPLIED/NOT COMPLIED</b>	<b>CATALOGUE PAGE NO</b>
<b>1</b>	<b>Power requirement: 150W to 200W continuous wave output</b>		
<b>2</b>	<b>Beam diameter: 12mm - 15mm</b>		
<b>3</b>	<b>Flat-topped beam (uniform intensity across the beam profile)</b>		
<b>4</b>	<b>Diode pumped, low divergence beam</b>		
<b>5</b>	<b>IR tunable power to be transmitted to material inside a chamber through a custom Quartz disc</b>		

**(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified)**

**Pre-Qualification Bid****Compliance sheet for Pre-Qualification Bid Submission.**

<b>S.NO</b>	<b>Pre-qualification Criteria</b>	<b>Compliance Yes/No</b>	<b>Document proof Pg. No.</b>	<b>Details of Proof Submitted</b>
<b>1</b>	The supplier shall have the capability to supply the Laser system to meet the following specifications, Power requirement: 150W to 200W continuous wave output, Beam diameter: 12mm - 15mm, Flat-topped beam (uniform intensity across the beam profile), Diode pumped, low divergence beam, IR tunable power to be transmitted to material inside a chamber through a custom Quartz disc. Relevant documentation proof can be submitted.			
<b>2</b>	The supplier shall provide details of Minimum of 3 previous supply orders in last 5 years for High Power Continuous Wave Output Lasers along with contact details of end user as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.			
<b>3</b>	The bidder shall not be from a country sharing land border with India and if the bidder is from a country sharing land border with India the bidder should have been registered with the competent authority as per orders of DIPP OM No. F. No. 6/18/2019-PPD dated 23rd July 2020, and MoCI Order No. P-45021/112/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration			

	shall be submitted with the bid as per format given in Annexure – 4.			
<b>4</b>	The bidder should submit of Earnest Money Deposit (EMD) as per guidelines given in sl no. 3 in the “Instructions to the bidders”.			
<b>5</b>	The bidder should submit “Declaration for non-debarment of bidders” as per Annexure 5			
<b>6</b>	The Bidder should have a minimum turnover of Rs. 50 Lakhs in any one of the last 3 financial years (i.e., 2019-20, 2020-21, 2021-22). (documentary proof should be submitted)			

**FORMAT FOR AFFIDAVIT OF SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA –  
PER ITEM**

This letter should be on the letterhead of the quoting firm and should be signed by a competent authority. Non-submission of this will lead to Disqualification of bids.

**Tender Reference Number:**

**Name of the item / Service:**

Date: \_\_\_\_\_

I/We \_\_\_\_\_ S/o, D/o, W/o, \_\_\_\_\_

Resident of

\_\_\_\_\_

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Policy vide Gol Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P- 45021/102/2019-BE-II-Part (1) (E-50310) Dt. 4th March 2021 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said item/service/work has been verified by me and I am responsible for the correctness of the claims made therein.

**Tick (✓) and Fill the Appropriate Category**

<input type="checkbox"/>	I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to or more than 50% and come under <b>“Class-I Local Supplier”</b> category.
<input type="checkbox"/>	I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to 20% but less than 50% and come under <b>“Class-II Local Supplier”</b> category.

- The details of the location (s) at which the local value addition is made and the proportionate value of local content in percentage

Address \_\_\_\_\_

Percentage of Local content: \_\_\_\_\_%

\_\_\_\_\_

For and on behalf of .....(Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

(To be given on the letter head of the bidder)

No. \_\_\_\_\_

Dated: \_\_\_\_\_

**CERTIFICATE**

*(Bidders from India)*

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I am not from such a country.

**OR (*whichever is applicable*)**

*(Bidders from Country which shares a land border with India)*

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I from \_\_\_\_\_ (Name of Country) and has been registered with the Competent Authority. I also certify that I fulfil all the requirements in this regard and is eligible to be considered. *(Copy/ evidence of valid registration by the Competent Authority is to be attached)*

Place:

Date:

Signature of the Tenderer  
Name & Address of the  
Tenderer with Office Stamp

**Self-Declaration that the Service Provider has not been blacklisted**

(To be given on the letter head of the bidder)

I ..... S/o  
..... R/o ..... police station .....  
District ..... Director  
/ partner/ sole proprietor (Strike out whichever is not applicable) of  
.....

..... (Firm or Company) do hereby declare and solemnly affirm:

- I. That the Firm ..... has not been Blacklisted or declared insolvent by any of the Union or State Government / Organization.
- II. That none of the individual / firm / Company Blacklisted or any partners or shareholder thereof has any connection directly or indirectly with or has any subsistence interest in the deponent business / firm company.
- III. That neither the Firm nor any of its partner has been involved / convicted in any criminal case / economic offence nor any criminal case / economic offence is pending against firm or any partner of the Firm before any Court of Law / Police.

Place: Signature of the Tenderer  
Date: Name & Address of the  
Tenderer with Office Stamp

**TENDER CHECKLIST – Mandatory to be filled and sent (inside the Main Bid Cover) along with Bidding Document.**

- (1) I have registered as a Vendor with IC&SR. (Proof to be enclosed)
- (2) Declaration For Blacklisting Annexure 6
- (3) Completed and **Signed Form of Tender**. The Form of Tender document shall be signed by a person legally authorized.
- (4) Completed Pre-Qualification Compliance Statement (As per Annexure 2).
- (5) Evidence of similar contracts completed/Product supplied in case if the details are requested in Annexure - 2
- (6) Certification of Class I / Class II & Non Local supplier to be submitted **(As a part of technical bid) per item / service / work Annexure 3**
- (7) EMD (Ref. tender document pg.no. 2, Point no.3)
- (8) Land Border (Annexure – 4)
- (9) Authorized agent certificate from OEM is mandatory if Indian agent/Indian office of OEM is participating in this tender on behalf of OEM. (Ref. tender document pg.no. 2, Point no.4) as per Annexure 5

The bid will be valid only if all the above documents are provided. Bidders are asked to supply and tick off the required information. Failure to provide any of the stated documents may result in the bid being considered as non-compliant and rejected.

**Signature of the Bidder**





CENTRE FOR INDUSTRIAL CONSULTANCY & SPONSORED RESEARCH (IC&SR)  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
CHENNAI 600 036



**ELECTRONIC CLEARING SERVICE (Credit Clearing)/ REAL TIME GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS**

**A. Details of Account Holder**

Name of the Institution	Indian Institute of Technology - Madras
Complete Contact Address	Industrial Consultancy and Sponsored Research Indian Institute of Technology-Madras, IIT- Madras Campus Post Office, Sardar Patel Road, Guindy, CHENNAI - 600 036
Telephone No./ Fax No.	Tel - 044-2257 8356
E- mail ID of the FO/AO/REG/DIR	dricrs@iitm.ac.in

**B. Bank Account Details:**

Institution Account Name (As per Bank Record)	The Registrar, Indian Institute of Technology - Madras
Account No.	2722101003872
Account Print Name	IIT F A/C , The Registrar IIT Madras
IFSC CODE	CNRB0002722
Bank Name (in full)	Canara Bank
Branch Name	IIT-Madras Branch
Complete Branch Address	Canara Bank, IIT-Madras Branch, IIT- Madras Campus Post Office, Sardar Patel Road, Guindy, CHENNAI - 600 036
MICR No.	600015085
Account Type	Savings Account

Certified that the Institute's account is in an RTGS enabled branch.

I hereby declare that the particulars given above are correct and complete.

Date:

Signature of the Competent Authority  
of the Institution with seal.