



केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी (राजस्थान) 333 031

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Gram : "ELECTRONIC" Pilani

No. SPO/EOI/TBD/10-Pur/2023/E-09

Dated: 05.07.2023

EXPRESSION OF INTEREST FOR PROCUREMENT OF THE FOLLOWING:

Sr. No.	Name of the items/goods/components	General Specifications of the item/goods/components	Justification
EOI for R&D Equipments and Consumables			
1.	Deep Reactive Ion Etching (DRIE)	Sample Loading Size 6". Etching Depth 600 micrometer Aspect Ration 1 : 10 RF Power supply 13.56 MHz, 2000 W Include Bosch Process Substrate etching uniformity < 5%	System is required for etching of Si wafers.
2.	FTIR Accessories ultra-high performance photoacoustic spectroscopy detector for solid, semi-solid and liquid samples	Detector should be compatible with Bruker FTIR model Tensor 37	System is required for solid, semi-solid and liquid samples analysis.
3.	Compact Fourier Transform Infrared Spectroscopy (FTIR)	Transmission wave number range (cm ⁻¹): 8000-350 can characterize liquid samples	System is required for elemental analysis.
4.	Hand held X-Ray Florescence (XRF)	Silver (Ag) anode 50 kV X-ray tube • SDD (Silicon Drift Detector) • In-line Camera for Aiming. • 3mm X-Ray Spot Collimation • Docking Station	System is required for elemental analysis.
5.	Plasma enhanced Atomic Layer Deposition (FEALD)	For the following materials Al ₂ O ₃ , SiO ₂ , HfO ₂ , ZrO ₂ , TiN, Au, Ru, Pt, Al:Znt)	System is required for very thin layer deposition of metals and dielectric.
6.	Stealth laser dicing with Die Separator	Wafer thickness: 80-1000 μm Epi materials: GaN & its compound, GaAs & its compound. Substrate materials: Sapphire, SiC, GaAs, InP, lithium tanatalate/GaN, Si Wafer size: up-to 6 inch Applications: LEDs dicing, laser chip dicing and other devices. Die size: 0.3 mm x 0.3 mm, 0.3 mm x 0.6 mm, 0.5 mm x 0.5 mm and 1.0 mm x 1.0 mm Waer size: 1 cm x 1 cm to up-to 6 inch Die Thickness: 80 μm – 1000 μm	The stealth laser dicing is required for dicing of fabricated LED chips, laser chips and other devices with minimum damage and minimum wafer area wastage. Die separator is require for separation of chips exposed by laser source (Stealth

			laser dicing). The die separator should be compatible Stealth laser dicing.
7.	Deep level transient spectroscopy (DLTS)	<ul style="list-style-type: none"> • System should be capable of Deep traps with levels shallow to deeper greater than ~ 1 eV for the following materials such as GaN LED structure, GaAs laser structures, Detectors. • Sensitivity <math> < 2 \times 10^8 / \text{cm}^3 </math> • Complete range of measurement modes including temperature scan, frequency scan, depth profiling, C-V, 1-V, capture cross section, optical injections, MOS interface state density distribution measurements. 	System is required for characterization of LEDs, laser detector structures to find out the traps/defects.
8.	LEDs Optical Aging test set-up/equipment	<ul style="list-style-type: none"> • Measurement optical and electrical maintenance for single LED or LED module for measurement of LED life time. • Standard LM-80 • High and low temperature humidity chamber (Temperature ~20-150 °C and humidity (30-98 % RH) 	System will be used for measurement of lifetime of the LED chip.
9.	Electron beam welding System	10kW electron beam welding system for welding metals, alloys etc.	System will be used or the fabrication of microwave components.
10.	PZT Wafers	Size 4", PZT film thickness 1 micron, Top electrode, bottom electrode	The wafers will be used for IR sensor.

CSIR- Central Electronics Engineering Research Institute, (CSIR-CEERI), Pilani, (Rajasthan) INDIA is an institute of Council of Scientific and Industrial Research, an autonomous body under Department of Scientific and Industrial Research (Government of India), New Delhi.

CSIR-CEERI is interested in procuring the above mentioned scientific equipments and consumable for R&D activity and invites prospective manufacturers/ Class – I Local Supplier and Class – II Local Supplier to discuss with the Technical Committee about the specifications and also demonstration / technical presentation of above mentioned equipments and consumables by interested manufacturer's/ Class – Local Suppliers and Class – II Local Suppliers. **Meeting will be held through MS Team or another similar platform.**

Please mention the below reference for submitting the Proposal of the Equipment and Consumable items against EOI. Please submit the documents of each Equipment and Consumable in separate evolve mentioning the reference number of EOI.			
Sl. No.	File Number	Description of Item	Date, Time and Place of meeting.
1	SPO/EOI/TBD/10-Pur/2023/E-09/01	Deep Reactive Ion Etching (DRIE)	07.08.2023 at 10.00 A.M. at CSIR-CEERI, Pilani

2.	SPO/EOI/TBD/10-Pur/2023/E-09/02	FTIR Accessories ultra-high performance photoacoustic spectroscopy detector for solid, semi-solid and liquid samples
3.	SPO/EOI/TBD/10-Pur/2023/E-09/03	Compact Fourier Transform Infrared Spectroscopy (FTIR)
4.	SPO/EOI/TBD/10-Pur/2023/E-09/04	Hand held X-Ray Florescence (XRF)
5.	SPO/EOI/TBD/10-Pur/2023/E-09/05	Plasma enhanced Atomic Layer Deposition (FEALD)
6.	SPO/EOI/TBD/10-Pur/2023/E-09/06	Stealth laser dicing with Die Separator
7.	SPO/EOI/TBD/10-Pur/2023/E-09/07	Deep level transient spectroscopy (DLTS)
8.	SPO/EOI/TBD/10-Pur/2023/E-09/08	LEDs Optical Aging test set-up/equipment
9.	SPO/EOI/TBD/10-Pur/2023/E-09/09	Electron beam welding System
10	SPO/EOI/TBD/10-Pur/2023/E-09/10	PZT Wafers

1. The address for submission of document and for obtaining further information:

Stores & Purchase Officer
Purchase Section
CSIR- Central Electronics Engineering Research Institute,
CEERI Campus, Pilani – 333031,
Dist. – Jhunjhunu (Rajasthan), INDIA.

Telephone No. 01596 – 252439, 252428

Email: spo@ceeri.res.in

2. The Bidding document can be downloaded free of cost directly from Central Public Procurement Portal (CPPP) of Government of India website <https://etenders.gov.in> and CSIR-CEERI website <https://www.ceeri.res.in>
3. Schedule for submission: The schedule of submission of proposals, Technical leaflet/ literature and other Technical supporting documents and opening of proposals is as follows:

Date and Time of Submission of proposals for Consumables and Equipments.		Date and Time of Opening of proposals of Consumables and Equipments.	
Date	Time	Date	Time
27.07.2023	2.30 P.M.	28.07.2023	3.30 P.M.

4. Date and Time for receipt of proposals: Proposal, Technical leaflet/ literature and other Technical supporting documents may be submitted through CPP Portal or through email before due date and time to CSIR-CEERI, Pilani – 333031 (Rajasthan), on or before date and time mentioned in point No.3, for submission of proposals. Late / delayed proposals will not be considered. In case the last date and time is declared a holiday at a later date, then the due date and time for receipt, opening will be shifted to the next working date and time automatically. No corrigendum will be issued in this regard.

5. Pre Indent conference: A pre indent conference of above mentioned R&D equipments and consumables with bidders will be arranged on above mentioned date and time at 10.00 A.M. onwards for R &D equipments and consumables **via MS Team or another similar platform**. Interested bidders are requested to email their willingness for making their presentation/ demonstration to spo@ceeri.res.in, headtbd@ceeri.res.in, on or before 26.07.2021 at 5.00 P.M.. Bidders will be allotted time slots to make presentations on their, products profile, detailed specifications and technical capabilities etc.
6. Eligibility Criteria: The bidders representatives who attend the pre indent conference should possess all the technical details of the R&D equipments and consumables its capability, complete information of the company, previous experience, various technologies involved available in India and financial capabilities etc. The representatives should be capable enough to answer all queries of the Technical Sub Committee. An example of EOI eligibility criteria is mentioned in Table 1.

Table 1: An example of EOI eligibility criteria

Criteria	Sub-criteria	Weightage*	Break-up of Weightage
Past experience of the firm with similar requirements		10	
Financial strength and Sales of Equipment			
	Turnover figures of the last three years	10	One Crore Per Year
	Equipment / Consumable sold in the last three years	10	Two equipments Per Year/ 50 Wafers Per Year.
Quality accreditations, licensing requirements.	ISO companies, BIS standard, if available	10	
Manufacturing capabilities		40	
After-sales support infrastructure		10	
Product support		10	

Minimum Qualified Marks: 60 Marks.

*Weightage (out of 100) should be pre-decided and in EOI documents by the Competent Authority based on assessment of the required profiles of the potential bidders. The marking/grading scheme for allotting marks (out of 100) for various parameters should also be laid down.

Evaluation of EOI: The bidders should be evaluated for short-listing, inter-alia, based on their past experience of performance in a similar context, financial strength and technical capabilities, among others. Each bidder should be assigned scores based on the sum of marks obtained for each parameter multiplied by the weightage assigned to that parameter. All bidders who secure the minimum required marks (normally 60 (sixty) per cent) should be shortlisted. The minimum qualifying marks should be specified in the EOI document may specify a ‘fail-pass criteria’ with the minimum qualifying requirement for each of the criteria, such as minimum years of experience, minimum number of assignments executed and minimum turnover. Under such circumstances, all bidders who meet the minimum

requirement, as specified, should be shortlisted. In two stage bidding the Technical bids should be first analyzed/ scrutinized by the Technical Sub Committee.

7. The technical committee shall finalize the specifications after knowing/obtaining details about relevant/available technology in the market suiting to the requirement and needs of our Laboratory/ Institute.
8. The tender document and contract will be finalized based on past experience of performance in a similar context, financial strength and technical capabilities and other allied technical services. Contract will be awarded to the lowest evaluated bidder after a separate bidding process based on two bid system.
9. For evaluating the responses, CSIR-CEERI may call for further presentations of their case in person or presentation can be considered via Skype/Video Conferencing also.
10. The Director, CSIR-Central Electronics Engineering Research Institute, Pilani – 333031 (Rajasthan), INDIA reserves the right to accept or reject any or all EOI Notification/ tenders/offers or withdraw the Notice at any stage of processing without assigning any reason whatsoever, such an event would not cause obligation of any kind to CSIR-CEERI.

Stores & Purchase Officer

1. INTRODUCTION

CSIR-CEERI is interested in purchasing various R&D equipments and consumables, which will be utilized in R&D activities.

2. OBJECTIVE

The objective this EOI is to identify prospective supplier to supply the required equipments and consumables. Eligibility criteria for bidders are mentioned in the tender document etc. A separate tender will be floated for the supply of equipments and consumables on the recommendations of Technical Sub Committee, after EOI.

3. SCOPE OF SUPPLY

Various equipments and consumables are required for on-going R&D mission project and activities.

4. Eligibility Criteria

Technical

1. Indian Manufacturers, Class – I Local Supplier and Class – II Local Suppliers are eligible for supply of equipments and consumables.

Eligibility of Class – I Local Supplier / Class – II Local Supplier/ Non-local suppliers for different types of procurement.

- (a) In procurement of all goods, services or works in respect of which the Nodal Ministry/ Department has communicated that there is sufficient local capacity and local competition, only Class – I local suppliers, as defined under the Order, shall be eligible to bid irrespective of purchase value.
- (b) In procurement of all goods, services or works, not covered by sub-para (a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure. Only Class –I local supplier and class – II local supplier, as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquires, Non-local suppliers shall also be eligible to bid along with Class – I local suppliers and Class –II local suppliers.
- (c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

Commercial

1. The bidder should not have been black listed / holiday listed by any other CSIR laboratory, or by any other R&D organization or by Government of India. A self declaratory letter in this regard must be enclosed.

5. Proposals

Technical

- a) Detailed specifications of the equipments and consumables supported by technical brochures/ data sheets in English. The Bidder shall provide the complete technical information .
- b) Detailed brochure / datasheets on the technologies / techniques involved.
- c) Other utilities if any.

Bidder Information

- a) Company information – Status of bidder, registration certificate, and detailed write up about bidder history.
- b) Details of Personnel – Details of all key technical, commercial and service personnel.
- c) Location of factory involved in production of equipment and consumable.
- d) Details of financial information about company in the last 3 years, like turnover, copies of audited balance sheet etc.
- e) Details of their offices setup in India.
- f) Self certified letter about holiday listing / black listing in bidder letter head.
- g) Code of Integrity and conflict of interest duly signed by the authorized representative must be enclosed.
- h) Copies of Purchase orders / contracts of similar equipments and consumables supplied in the last 3 years and the performance certificate from the respective clients.
- i) The Bidder shall indicate the timelines necessary for supply
- j) Vendors must submit the Certificate on their Letter Head that they are Class – I Local Supplier or Class – II Local Supplier and also mentioned the percentage of local contents which are manufacturing in India.

Sl. No.	Name of the Buyer with location	Date and Reference Number of Purchase order (if available)	Date of Compulsion	Performance Certificate

6. Other terms

Purchase of EOI Document

The Expression of Interest document shall be downloaded from Central Public Procurement Portal (CPPP) website <http://etenders.gov.in> and CSIR-CEERI Website www.ceeri.res.in free of cost.

Clarifications of the EOI Document

Any clarification in the EOI document may be sent in writing to the following through email: Stores & Purchase Officer, email: spo@ceeri.res.in

However, no extension of the time or date of EOI submitted will be provided on the ground that CSIR-CEERI has not responded to any query/clarification raised by any Prospective Bidder.

Amendment of Terms and Conditions of EOI

1. CSIR-CEERI may at its discretion or as a result of query, suggestion or comment of Bidder, may modify the EOI document by issuing an amendment or a corrigendum at any time before opening the EOI. Any such addendum or corrigendum will be uploaded on CPP Portal <http://etenders.gov.in> and CSIR-CEERI Website www.ceeri.res.in and the same will be binding on all the Bidders, as the case may be.

2. CSIR-CEERI at its discretion may extend the due date of submission of EOI and the decision of CSIR-CEERI in this respect would be final and binding on the respondents. In the event of changes in the time schedule. CSIR-CEERI website www.ceeri.res.in . Interested Bidders are advised to check the above website regularly for corrigendum / addendum, if any, which will be published only in the website.
3. No oral modification or interpretation of any provisions of this EOI shall be valid. Written communication shall be issued by CSIR-CEERI when changes, clarifications or amendments to the EOI document are deemed necessary by CSIR-CEERI at its sole discretion.
4. EOI submission should be in English language, EOI response should be free from correction, over writing, errors or omissions etc. Duly authorized representative of the prospective bidder shall sign on each page of the EOI documents. EOI documents should be prepared in such a way so as to provide a straight forward, concise description of the equipments and consumables, bidder and capabilities to satisfy the requirements of this EOI.
5. EOI that are incomplete in any respect or those that nor consistent with the requirements as specified in this document may be considered non-responsive and may be liable for rejection and no further correspondence will be entertained with such Bidders.
6. If at any time during the examination, evaluation and comparison of EOI, CSIR-CEERI its discretion can ask the Bidder for the clarification of its EOI. The request for clarification and the response shall be in writing. However, no post submission of EOI, clarification at the initiative of the Bidder shall be entertained.
7. Canvassing by bidders in any form, including unsolicited letters on EOI, submitted or post corrections shall render their EOI response liable for summarily rejection.
8. The cost of charges incurred in preparation and submission of EOI response shall not be entitled by any bidder.
9. Conditional offers will be summarily rejected. EOI which is found to be incomplete in content and / or attachments and / or authentication etc. is liable to be rejected.
10. CSIR-CEERI is not responsible for any firm/ agency expression of representing to express himself/ themselves to be the agent or third party representing CSIR-CEERI in this process.
11. Disregard of any instruction may result in offer being ignored.
12. All cost and expenses associated with submission of EOI shall be borne by the Bidder while submitting the EOI. CSIR-CEERI shall have no liability, in any manner in this regard, or if it decides to terminate the process of short listing for any reason whatsoever.

Stores & Purchase Officer

Bidder Information Form*(Refer para 5.1.2 (ix)(a) of the CSIR Manual)*

- (a) *The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]*

Date: *[insert date (as day, month and year) of Bid Submission]*

Tender No.: *[insert number from Invitation for bids]*

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01.	Bidder's Legal Name <i>[insert Bidder's legal name]</i>
02.	In case of JV, legal name of each party: <i>[insert legal name of each party in JV]</i>
03.	Bidder's actual or intended Country of Registration: <i>[insert actual or intended Country of Registration]</i>
04.	Bidder's Year of Registration: <i>[insert Bidder's year of registration]</i>
05.	Bidder's Legal Address in Country of Registration: <i>[insert Bidder's legal address in country of registration]</i>
06.	Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
07.	Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder _____

Name _____

Business Address _____

Format for declaration by the Bidder for Code of Integrity & conflict of interest
(Refer para 3.2.1 & 5.1.2 (ix)(m) of the CSIR Manual)

(On the Letter Head of the Bidder)

Ref. No: _____

Date _____

To,

(Name & address of the Purchaser)

Sir,

With reference to your Tender No. _____ dated _____ I/We hereby declare that we shall abide by the Code of Integrity for Public Procurement as mentioned under Para 1.3.0 of ITB of your Tender document and have no conflict of interest.

The details of any previous transgressions of the code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity are as under:

- a
- b
- c

We undertake that we shall be liable for any punitive action in case of transgression/ contravention of this code.

Thanking you,

Yours sincerely,

Signature
(Name of the Authorized Signatory)
Company Seal