

06<sup>th</sup> March, 2020

## **EXPRESSION OF INTEREST**

### **Expression of Interest for “Supply, Installation & Maintenance of 3D Printer”**

**Tender Reference: DIC/FABLAB/2020/002**

Design Innovation Centre at Cluster innovation Centre, University of Delhi is establishing Fabrication and Rapid Prototyping Lab to facilitate product development and design. Interested OEMs and Authorized Vendors may visit e-Procurement Portal (<http://eprocure.gov.in/eprocure/app>) or University of Delhi website (<http://du.ac.in>) for downloading documents and participating in the EoI.

#### **Important Dates:**

|                              |                          |
|------------------------------|--------------------------|
| EoI Publishing Date          | 09/03/2020 at 10:00 HRS. |
| Document Download Start Date | 09/03/2020 at 10:00 HRS. |
| Pre Bid Meeting Date         | 18/03/2020 at 16:30 HRS. |
| EoI Submission Start Date    | 25/03/2020 at 09:00 HRS. |
| EoI Submission End Date      | 08/04/2020 at 17:00 HRS. |
| EoI Opening Date             | 10/04/2020 at 14:00 HRS. |

Sd/-

Coordinator, Design Innovation Centre (CIC)



**DESIGN INNOVATION CENTRE  
CIC, UNIVERSITY OF DELHI, DELHI – 110007**

**EoI Reference No. DIC/FABLAB/2020/002**

**Dated: 06/03/2020**

**INVITATION AND GENERAL TERMS FOR EXPRESSION OF INTEREST FOR  
SUPPLY & INSTALLATION OF 3D PRINTING SYSTEM AT DESIGN  
INNOVATION CENTRE (CLUSTER INNOVATION CENTRE), UNIVERSITY OF  
DELHI**

## I. INTRODUCTION

The Ministry of Human Resource Development, Government of India has taken a national initiative to set up a network of Design Innovation Centres (DICs) across the country. One Open Design School and a National Design Innovation Network will link these DICs to evolve a nationwide ecosystem of resource and knowledge sharing to impart education and training to foster the innovative culture of designing products, processes and technologies of need to society. To keep up with the developing manufacturing trends and also to fast track realization of prototypes and products, a state-of-the art fabrication and rapid prototyping facility is required. Through this Expression of Interest (EoI), Design Innovation Centre at Cluster Innovation Centre, University of Delhi (DUDIC) intends to explore the applications of additive manufacturing technology in rapid prototype and product development for establishing advanced fabrication and rapid prototyping facility.

Attention of reputed OEMs and authorized dealers in additive manufacturing equipment is solicited to respond to this EoI. OEMs are required to visit CPP Portal <http://eprocure.gov.in/eprocure/app> for participation in the EoI. The purpose of this EoI is to shortlist perspective bidders for issue of RFP. Participation in the EoI is an essential and necessary condition to participate in the further tendering process.

## II. LOCATION

The fabrication and rapid prototyping facility shall be located at Design Innovation Centre, DREAM Building, Gate No. 4, University of Delhi, Delhi – 110007, India.

## III. QUALIFICATION CRITERIA

Prospective OEMs / Authorized Vendors shall meet following criteria and submit corresponding documents to be eligible for participation in EoI:

1. OEM or authorized vendor
2. Shall be in business of 3D printing system supply with minimum 3 year experience and with a group business turnover of Rs 200 lakhs.
3. Audited statement of accounts for the last three financial years.
4. Affidavit / Undertaking of not being blacklisted by any Government Agency / Department.
5. Product Brochure along with specification, make and model.
6. PAN Card of the firm.
7. The OEMs/ Authorized Vendors must have service and support office in Delhi NCR.

## IV. PRE-BID MEETING

DUDIC will host a pre-bid meeting of prospective bidders on **18/03/2020 16:30 Hours**. The representatives of the interested organizations may attend the pre-bid meeting at their own cost. The purpose of the meeting is to provide bidders with information regarding the EoI document and the proposed requirements. It will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the EoI document. A maximum of two representatives of

each Bidder shall be allowed to participate in the meeting. The venue for the Pre bid meeting is the address provided below:

**Committee Room, First Floor, DREAM Building, Design Innovation Centre, Gate No. 4, University of Delhi, Delhi – 110007, India.**

Any change in Venue and Time for pre-bid meeting will be displayed on University of Delhi website and e-Procurement Portal (<http://eprocure.gov.in/eprocure/app>) one day before the schedule of pre-bid meeting.

All clarifications that are received by email at [bibhucic@gmail.com](mailto:bibhucic@gmail.com) in the prescribed format (Annexure-IV) on or before 18<sup>th</sup> March 2020 16:30 Hours may be addressed by DUDIC in a Pre-bid Meeting. DUDIC shall aggregate and respond to all such clarifications (if any) as per the schedule of EoI. This response to clarifications (if any) will be issued as a Corrigendum to the original EoI document on 25th March 2020 17:30 Hours.

During the course of Pre-Bid meeting, the Bidders will be free to seek clarifications and make suggestions for consideration. The DUDIC shall endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive bidding Process.

In respect of clarifications received, the following shall apply:

- A. DUDIC reserves the right not to consider any condition that in the sole discretion of DUDIC, is found unacceptable.
- B. If in DUDIC's opinion, certain conditions are acceptable, in whole or in part, the same shall be finalized by DUDIC and the accepted conditions will be made available on University of Delhi Website (<http://www.du.ac.in>) and e-Procurement Portal.
- C. In respect of suggestions / alterations proposed DUDIC may consider them and the result will be published on University of Delhi Website (<http://www.du.ac.in>) and e-Procurement Portal.
- D. If DUDIC deems it appropriate to revise any part of this EoI Document or to issue additional data to clarify an interpretation of the provisions of this EoI Document, it may issue supplements to this EoI Document. Such supplemental information, including but not limited to, any additional conditions, clarifications, minutes of meeting, official communication over email/ post, etc. will be communicated to all the bidders by putting up on University of Delhi Website (<http://www.du.ac.in>) and e-Procurement Portal. Any such supplement shall be deemed to be incorporated by this reference into this EoI document.
- E. In order to allow bidders a reasonable time to take the amendment(s) into account in preparing their EoIs, DUDIC, at its discretion, may extend the deadline for the submission of EoI, and the extended date will be displayed on the University of Delhi Website (<http://www.du.ac.in>) and e-Procurement Portal.

## V. MODE OF OPERATION OF TENDER

1. Based on the document proof furnished by the vendors as per the eligibility criteria mentioned in Section - III, the vendors will be shortlisted. **No price is to be quoted now.**

2. Subsequent evaluation of the competency and other technical & financial capability of the shortlisted vendors will be done by a team of technical Evaluation committee of DUDIC by calling for technical presentation, model submission, site visit etc. if necessary.

There will be a pre-bid meeting for all vendors who qualify after step 1 mentioned above. This will be to ensure that the requirements of DUDIC are properly understood and that the offer is made compliant to DUDIC technical and commercial terms & conditions. The qualified vendors will be provided with Request for Proposal document (RFP) on Limited Tender Basis through e-Procurement Portal (<http://eprocure.gov.in/eprocure/app>) to enable them to submit Two Part Tender consisting of:

**Part-A:** Techno Commercial Bid containing technical specifications, deliverables, detailed description of systems, time schedule, commercial terms etc.

**Part-B:** Price bid containing price details.

Only Techno-commercial bid will be opened initially and the same shall be evaluated with reference to our technical requirements and vendors short-listed. Subsequently the price bids of the short-listed vendors will be opened and contract finalized.

This call for EoI does not carry with it any guarantee for allotment of contract.

## VI. TECHNICAL SCOPE OF THE EoI

Major specification of the 3D printing system required is as follows:

| SL. NO.                        | Technical Specifications  |       |
|--------------------------------|---|-------|
| Technology                     | An office Friendly, Additive Fabrication Technology 3D Printer injecting liquid based Photo polymers to create ultra-thin uniform layers using a non-laser based technology. The technology should be capable of creating highly accurate and good surface parts for Form / Fit functional usage and rapid tooling. |       |
| Build Size                     | The minimum part build size should be 290 x 185 x 200 mm or more.   |       |
| Printing Material and Quantity | Transparent Material  | 12 kg |
|                                | ABS like material or material simulating the properties of ABS  | 8 Kg  |
|                                | PP Like or PC Like Material   | 8 Kg  |
|                                | Castable Material for metal casting   | 6 Kg  |
|                                | Biocompatible Material suitable for healthcare applications (USP VI Certified)  | 4 Kg  |
|                                | The aforementioned material quantity has to be supplied other than the Startup Kit included in the printer.   |       |
| Support Material               | The support material should be common for all Model Materials for better handling of Inventory & wastage. The support material quantity supplied should be in proportion to the required Model Material quantity.   |       |

|  |  |
|--|--|
| Layer Thickness                              | 16 Microns or better   |
| Accuracy                                     | 0.1 mm (0.0039 in.) or better  |
| Shelf Life of Material                       | Model Materials should have a minimum of 3 Years Shelf Life.   |
| Support Material Removal and Post Processing | The support material removal system must be automatic and should be included with the printing system.   |
| Print Head Warranty                          | 3 Year print head warranty provided along with the machine.  |
| Input File format                            | STL, SLC, OBJ, 3DS   |
| Software                                     | <p>The software interface of the printer should have the following features, but not limited to</p> <ol style="list-style-type: none"> <li>1. Should be capable of printing multiple parts together</li> <li>2. Automatic real-time support structure design and generation</li> <li>3. Suggest most suitable / economical orientation based on material consumption and speed</li> <li>4. Should be capable of providing material and time estimate for the job before printing</li> <li>5. Should be capable of pausing the print and re-start the printing from the paused position</li> <li>6. In case of any stoppage of printing due to unavoidable situations, software should be capable of resuming the print from the next layer</li> <li>7. Should provide a live status of material availability in the machine.</li> <li>8. Windows XP, Windows Vista / Windows 7 / Windows 8 compatible</li> </ol> |
| Warranty                                     | Three years standard on-site comprehensive warranty  |
| Operation                                    | Once the job is fired, the machine should work un- attended with practically minimum / no operator interface in an unattended light off operation.   |
| Network Connectivity                         | Ethernet, TCP/IP   |
| Removable Build Plates                       | Machine should be shipped with at least 2 removal build platforms eliminating downtime for faster print job.   |

## VII. INSTRUCTIONS TO THE BIDDERS

### Completeness of Response

- A. Bidders are advised to study all instructions, forms, requirements and other information in the EoI documents carefully. Submission of the EoI shall be deemed to have been done after careful study and examination of the EoI document with full understanding of its implications.
- B. The response to this EoI should be full and complete in all respects. Failure to furnish all information required by the EoI documents or submission of a proposal not substantially responsive to this document will be at the Bidder's risk and may result in rejection of its Proposal.
- C. The EoI shall be accepted online through e-Procurement Portal only.

### **EoI Proposal Preparation Costs & related issues**

- A. EoI should not be treated as a commercial tender document and bidders are advised not to offer any price or include any financial aspect with their responses.
- B. The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by DUDIC to facilitate the evaluation process.
- C. DUDIC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- D. This EoI does not commit DUDIC to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award or for preparing this EoI.
- E. All materials submitted by the bidder will become the property of DUDIC and may be returned completely to the bidder at its sole discretion.

### **Issue of Corrigendum**

- A. At any time prior to the last date for receipt of EoI, DUDIC may modify the EoI Document by a corrigendum.
- B. The Corrigendum (if any) will be posted on University of Delhi website and e-Procurement Portal (<http://eprocure.gov.in>)
- C. Any such corrigendum shall be deemed to be incorporated into this EoI.
- D. In order to provide reasonable time for taking the corrigendum into account, DUDIC may, at its discretion, extend the last date for the receipt of EoI Proposals.

### **Right to Terminate the Process**

- A. DUDIC may terminate the EoI process at any time and without assigning any reason. DUDIC makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- B. This EoI does not constitute and will not be deemed to constitute any commitment or confirmation or an offer by DUDIC. The bidder's participation in this process may result in short listing the bidders.

### **Submission of Responses**

- A. The EoIs shall be submitted online on the e-Procurement Portal of Government of India at <http://eprocure.gov.in/eprocure/app>. EoIs shall consist of supporting proofs and documents as defined in the eligibility criteria mentioned in Section - III. The EoIs submitted in any other mode than the online on the e-Procurement Portal of Govt. of India shall not be considered. No correspondence will be entertained on this matter.
- B. Bidder shall submit all the required supporting documents as mentioned in the Annexure-I, II, III online. It should be ensured that the formats mentioned in this EoI should be adhered to and no changes in the format should be done.
- C. EoI document submitted by the bidder should be concise and contain only relevant information as required.

- D. DUDIC reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon project priorities vis-à-vis urgent commitments.

## **VII. INSTRUCTIONS FOR ONLINE EoI SUBMISSION**

As per the directives of Department of Expenditure, this EoI document shall be published on the Central Public Procurement Portal (URL: <http://eprocure.gov.in>). The bidders are required to submit soft copies of their EoIs electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their EoI in accordance with the requirements and submitting their EoIs online on the CPP Portal.

More information useful for submitting online EoIs on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>

### **Registration**

- A. Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Click here to Enroll” on the CPP Portal is free of charge.
- B. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- C. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- D. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- E. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- F. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

### **Searching for Tender Documents**

- A. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- B. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- C. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.



## **Preparation of the EoI**

- A. Bidder should take into account any corrigendum published on the tender document before submitting their EoIs.
- B. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the EoI. Please note the number of covers in which the EoI documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the EoIs.
- C. Bidder, in advance, should get ready the EoI documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. EoI documents may be scanned with 100 dpi with black and white option.
- D. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every EoI, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting EoI, and need not be uploaded again and again. This will lead to a reduction in the time required for EoI submission process.

## **Submission of EoI**

- A. Bidder should log into the site well in advance for EoI submission so that he/she upload the EoI in time i.e. on or before the EoI submission time. Bidder will be responsible for any delay due to other issues.
- B. The bidder has to digitally sign and upload the required EoI documents one by one as indicated in the tender document.
- C. There is no EoI processing fee.
- D. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the EoIs by the bidders, opening of EoI etc. The bidders should follow this time during EoI submission.
- E. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of EoI opening. The confidentiality of the EoIs is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- F. The uploaded tender documents become readable only after the tender opening by the authorized EoI openers.
- G. Upon the successful and timely submission of EoIs, the portal will give a successful EoI submission message & EoI summary will be displayed with the EoI no. and the date & time of submission of the EoI with all other relevant details.
- H. The EoI summary has to be printed and kept as an acknowledgement of the submission of the EoI. This acknowledgement may be used as an entry pass for any EoI opening meetings.

**Assistance to the Bidders**

- A. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- B. Any queries relating to the process of online EoI submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 3070 2232.

## ANNEXURE - I

### COMPLIANCE SHEET

#### TECHNICAL SPECIFICATIONS:

| SL. NO.                                      | Technical Specifications  | YES / NO |
|--|---|----------|
| Technology                                   | An office Friendly, Additive Fabrication Technology 3D Printer injecting liquid based Photo polymers to create ultra-thin uniform layers using a non-laser based technology. The technology should be capable of creating highly accurate and good surface parts for Form / Fit functional usage and rapid tooling.   |          |
| Build Size                                   | The minimum part build size should be 290 x 185 x 200 mm or more.   |          |
| Printing Material and Quantity               | Transparent Material  | 12 kg    |
|  | ABS like material or material simulating the properties of ABS  | 8 Kg     |
|  | PP Like or PC Like Material   | 8 Kg     |
|  | Castable Material for metal casting   | 6 Kg     |
|  | Biocompatible Material suitable for healthcare applications (USP VI Certified)  | 4 Kg     |
|  | The aforementioned material quantity has to be supplied other than the Startup Kit included in the printer.   |          |
| Support Material                             | The support material should be common for all Model Materials for better handling of Inventory & wastage. The support material quantity supplied should be in proportion to the required Model Material quantity.   |          |
| Layer Thickness                              | 16 Microns or better  |          |
| Accuracy                                     | 0.1 mm (0.0039 in.) or better   |          |
| Shelf Life of Material                       | Model Materials should have a minimum of 3 Years Shelf Life.  |          |
| Support Material Removal and Post Processing | The support material removal system must be automatic and should be included with the printing system.  |          |
| Print Head Warranty                          | 3 Year print head warranty provided along with the machine.   |          |
| Input File format                            | STL, SLC, OBJ, 3DS  |          |
| Software                                     | <p>The software interface of the printer should have the following features, but not limited to</p> <ol style="list-style-type: none"> <li>1. Should be capable of printing multiple parts together</li> <li>2. Automatic real-time support structure design and generation</li> <li>3. Suggest most suitable / economical orientation based on material consumption and speed</li> <li>4. Should be capable of providing material and time estimate for the job before printing</li> <li>5. Should be capable of pausing the print and re-start the printing from the paused position</li> </ol> |          |

|                        |   |  |
|------------------------|---|--|
|                        | 6. In case of any stoppage of printing due to unavoidable situations, software should be capable of resuming the print from the next layer<br>7. Should provide a live status of material availability in the machine.<br>8. Windows XP, Windows Vista / Windows 7 / Windows 8 compatible |  |
| Warranty               | Three years standard on-site comprehensive warranty   |  |
| Operation              | Once the job is fired, the machine should work un-attended with practically minimum / no operator interface in an unattended light off operation.   |  |
| Network Connectivity   | Ethernet, TCP/IP  |  |
| Removable Build Plates | Machine should be shipped with at least 2 removal build platforms eliminating downtime for faster print job.  |  |

**Signature of Bidder**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Contact No.: \_\_\_\_\_

## ANNEXURE – II

### << Organization Letter Head >> COVERING LETTER AND DETAILS

To,

**The Coordinator,**

DIC, Cluster Innovation Centre

University of Delhi

Delhi – 110007

Subject: **Expression of Interest (EoI) for Supply and Installation of 3D Printing System**

Dear Sir,

This is with reference to your advertisement inviting EoI for “Supply and Installation of 3D Printing System”. I/We, the undersigned, offer to provide the supply for the same, please find below the details of our agency for your consideration:

| S. No. | Information  | Details |
|--------|--|---------|
| 1      | Name of Organization   |         |
| 2      | Head of Organization with Designation and Contact Details  |         |
| 3      | Legal Status   |         |
| 4      | Address of the Head Office   |         |
| 5      | Details of Support / Service Centres in Delhi NCR  |         |
| 6      | Name, designation and contact address, mobile number, email id of the person to whom, all references shall be made regarding this EoI. |         |
| 7      | Corporate website URL  |         |
| 8      | Annual Turnover  |         |
| 9      | Year of Operation  |         |
| 10     | PAN Number   |         |
| 11     | Sales Tax / VAT / GST  |         |
| 12     | OEM / Authorized Vendor  |         |

(Signature of the Tenderer)

Name: \_\_\_\_\_

Seal of the Company

## ANNEXURE – III

### << Organization Letter Head / Affidavit >>

#### No Blacklisting Undertaking

I/We declare that presently our Company/ firm \_\_\_\_\_ is not blacklisted and not declared ineligible for reasons of corrupt & fraudulent practices by any State/ Central Government/ PSU/ Autonomous Body on the date of EoI Submission.

#### Signature of Bidder

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Contact No.: \_\_\_\_\_

## ANNEXURE – IV

### << Organization Letter Head >>

#### Pre-Bid Queries Format

Name of the Company/Firm:

Address of the Company/Firm:

Name of the person representing the Company/Firm:

| Name | Designation | Email ID | Mobile No. |
|------|-------------|----------|------------|
|      |             |          |            |
|      |             |          |            |

Query / Clarification Sought:

| S.No. | EoI Page Number | Query / Suggestion Clarification |
|-------|-----------------|----------------------------------|
|       |                 |                                  |

Note:

*Queries must be filled strictly only in the above prescribed format and emailed to [bibhucic@gmail.com](mailto:bibhucic@gmail.com) latest by 18/03/2020. Queries not submitted in the prescribed format will not be considered/ responded at all by the authority.*

