

NIELIT Chennai Centre Tender Document- 3D PRINTER OF FDM TECHNOLOGY



**NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY
(NIELIT), Chennai**

Autonomous Scientific Society
Department of Electronics and Information Technology,
Ministry of Communications and Information Technology,
Government of India

Short Notice – e- Tender Document

Ref : DC-CHE\VI\1\EPDPT\384\16-17\Enq\127 Dated: 10/06/2016

Purchase of “3D PRINTER OF FDM TECHNOLOGY”

First Floor, ISTE Complex, 25, Gandhi Mandapam Road, Chennai – 600 025
Phone: 044- 24421445 / 47, Fax: 044- 24421441
Website: www.nielit.gov.in/chennai

Cost of Tender Document **Rs 500.00**

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Tender No: DC-CHE\VI\1\EPDPT\384\16-17\Enq-127

Date: 10/06/2016

TENDER DOCUMENT

1. Invitation to Tender

National Institute of Electronics and Information Technology (NIELIT) Chennai, an Autonomous Scientific Society under Department of Information Technology, Ministry of Communications & Information Technology, Government of India, invites e- Tenders on E-Procurement mode (only online) through <https://eprcoure.gov.in> under Two bid Systems (Technical Bid & Financial Bid)of to supply **3D PRINTER OF FDM TECHNOLOGY** at First Floor, ISTE Complex, 25, Gandhi Mandapam Road, Chennai – 600 025.

<i>SN</i>	<i>Items Description</i>	<i>Qty.</i>
1	3D PRINTER OF FDM TECHNOLOGY (Detailed Specifications in Tender Document)	01 No

2. Important Dates

Date of Tender Publication	10/06/2016 from 18.50 Hrs
Tender Document Download Start Date	10/06/2016 from 18.55Hrs
Tender Document Download End Date	22/06/2016 upto 13.00 Hrs
Clarification start Date	11/062016 from 10.00 Hrs
Clarification End Date	20/06/2016 from 13.00 Hrs
Bid Submission Start Date	11/06/2016 from 10.00 Hrs.
Bid Submission End Date	22/06/2016 upto 15.00 Hrs
Bid Opening (Technical Bid) <i>(Interested vendor may be present)</i>	22/06/2016 at 16.30 Hrs.

Notice Inviting Tender (NIT) have also been uploaded in portals <http://eprocure.gov.in/cpp> and www.nielit.gov.in/chennai for wide publications.

3. REGISTRATION:

- a) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal.
- b) During enrolment / registration, the bidders should provide the correct / true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/bidders through the email-id provided.
- c) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- d) For e-tendering, possession of valid Digital Signature Certificate is mandatory.
- e) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- f) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- g) Bidders can then log into the site through the secured login by entering their user ID / password and the password of the DSC / e-Token.

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3. Manner and method of submission of BIDS:

- a) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time.
- b) Bidders should prepare the Tender Fee & EMD as per the instructions specified in the NIT/ tender document.
- c) **The original demand drafts should be submitted to the Tender Inviting Authority, on or before the due date & time of bid submission.** The details of the tender fee and EMD uploaded should tally with the original demand drafts submitted. In case of failure of any of the above, the uploaded bid will be rejected. (Bidder shall select the payment option as offline to upload the Tender Fee and EMD).
- d) If the bidders are claiming exemption for the tender fee and EMD then the required supporting document for claiming exemption should be enclosed along with the tender document.
- e) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- f) Bidders shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- g) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- h) Utmost care shall be taken for uploading Schedule of quantities & Prices and any change / modification of the price schedule shall render it unfit for bidding.
- i) **The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.**
- j) Bidders shall submit their bids through **online e-tendering system** to NIELIT well before the bid submission end date & time. NIELIT will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders.
- k) After the bid submission, the bidders shall take print out of system generated acknowledgement number, and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- l) Bidders should follow the server time being displayed on bidder's dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system

4. CLARIFICATION OF BID DOCUMENTS BY THE CONTRACTOR:

A prospective bidder, requiring any clarification of the Bid Documents shall notify NIELIT in writing or by Fax at NIELIT 's mailing address indicated in the Invitation for Bids. The clarification will be **accepted before 11 (Eleven) days of the due date of tender.** The reply will be hosted in NIELIT official website.

5. Cost of Tender Documents:

Tender fee of Rs. 500/- (Five Hundred only) is to be remitted along with the bid in the form of a crossed Bank Draft favoring “**NIELIT Chennai**” from a nationalized bank payable at Chennai. The cost of tender document is non- refundable. In case of non-submission of the tender fee, the tender shall be treated as non-responsive.

6. Earnest Money Deposit (EMD):

Earnest money deposit of **Rs.48,000/- (Rupees Forty Eight Thousand Only)** shall be submitted along with the bid in the form of a Demand Draft favoring “**NIELIT Chennai**”. from a nationalized bank payable at Chennai. The EMD deposited by unsuccessful bidders will be refunded without interest after finalization of the order. The EMD of the successful bidder will be appropriated towards Security Deposit. The bids will not be considered in the absence of payment towards the cost of tender documents and EMD.

7. Security Deposit (SD):

The successful bidder will be required to remit a Security Deposit equivalent to 10% of the Purchase Order value exclusive of taxes and duties etc. after adjusting the EMD amount already remitted. SD is to be remitted along with the order acceptance in the form of a crossed bank draft favoring “**NIELIT Chennai**” or a bank guarantee from a nationalized bank payable at Chennai within 10 days of release of Purchase Order. The security deposit will be forfeited in the event of failure to execute the Purchase Order. The security deposit will be refunded without interest after the purchase order is successfully executed to the satisfaction of the Purchaser.

8. Eligibility Criteria.

The bidder in this regard should submit the scanned copies of the following documents in the Technical Bid

- A. Technically qualified bids will only be considered for Price Bid Opening.
- B. The company should be legally registered in India under Company Registration Act / Appropriate Government authorities
- C. The Company should have minimum one years of experience in the field of manufacturing / supplying of **Hardware and Software etc.**
- D. The Company should have had previous experience of supplying, installation, testing and demonstrating the said item at least in three nationally reputed research / educational institute in India.
- E. Foreign Vendors should have a branch office in India/Indian Partners/Representatives for rendering support services with appropriate infrastructure.
- F. If the tenderers are the authorized distributors of the Manufacturers, they are requested to enclose Photostat (Xerox) copy of the letter of their manufacturer appointing them as authorized distributor for marketing their product, duly attested.

Note: Vendor should provide documentary proof to prove his adherence to the qualifying criteria wherever necessary. Claims without support documents will not be considered.

9. GENERAL TERMS AND CONDITIONS

This tender and any order resulting from this tender shall be governed by the following terms and conditions of contract and the supplier quoting against this tender shall be deemed to have read and understood the same. In case, counter terms & conditions of business have been offered by the supplier, NIELIT Chennai shall not be deemed to be governed by those unless specific written acceptance thereof has been obtained from NIELIT Chennai.

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9.1 Terms of Prices: The rates are FOR (Freight On Receipt) destination, NIELIT Chennai Centre, First Floor, ISTE Complex, No. 25, Gandhi Mandapam Road, Chennai-600025. Rate quoted by the tender ***should be inclusive of sales tax, VAT, service tax, octroi, local charges and all other levies, if any.*** However, ***break up has to be shown clearly.***

9.2 Validity of quote: The quotation shall remain valid for a minimum period of 60 days from tender opening date.

9.3 Performance Bank Guarantee: Vendor shall submit a Performance Bank Guarantee for 10% of purchase order value covering standard warranty period or minimum 1 year from the date of successful testing and final acceptance of stores by consignee.

9.4 Payment terms: 90% of the payment would be payable against proof of supply, installation and testing, balance 10% would be payable only after successful demonstration and final acceptance of stores by consignee and on submission of the performance bank guarantee as given above Para.

9.5 Discount: Rate of discount if any, applicable (on basic price / landed price etc), should be clearly spelt out both in figures and words. However, no conditional discount will be considered for the purpose of evaluation of the offer (ranking).

9.6 Insurance: The supplier shall insure goods at their cost for all risks till acceptance of goods by end user.

9.7 Liquidated Damages: Delivery time is the essence of the contract. In the event of any delay in supply beyond the agreed delivery schedule, liquidated damages will be recovered @ 0.5% per week of delay or part thereof subject to a maximum of 5% of the value of the order.

9.8 Force Majeure: If the execution of the purchase order is delayed beyond the declaration of an embargo or blockage or fire, flood, acts of nature or any other contingency beyond the supplier's control due to act of God, then NIELIT Chennai may allow such additional time by extending the delivery period as justified by the circumstances of the case and its decision in this regard shall be final. Power failure will not be considered as a Force Majeure condition.

9.9 Risk purchase: In case of failure to deliver the goods within the delivery date stipulated in the purchase order unless prior extension of delivery period is obtained, NIELIT Chennai will be at liberty to obtain such items as necessary from other source and / or cancel the order and in either case NIELIT Chennai reserves the right to recover from the supplier the additional amount spent plus 10% to cover incidental expenses.

9.10 Dispute Resolution: Any dispute arising out of purchase order or interpretation of any clause or terms and conditions hereof shall be settled through conciliation by both NIELIT Chennai and the supplier, under the specific provisions of Arbitration and Conciliation Act 1996. Only courts in Chennai in the state of Tamil Nadu have exclusive jurisdiction over this order.

9.11 Conflicts: In case of conflict in interpreting the conditions of the documents forming part of this enquiry, the decision taken by the Director, NIELIT Chennai shall be final and binding and accepted by the vendor.

9.12 Right to Reject: NIELIT Chennai reserves the right to reject or accept or withdraw the tender in full or part as the case may be without assigning reasons thereof. No dispute of any kind can be raised against this right of buyer in any Court of law or elsewhere.

9.13 LATE BIDS: Any bid received by NIELIT after the due date & time for submission of bids prescribed by NIELIT shall be rejected.

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9. Items Tendered for: 3D PRINTER OF FDM TECHNOLOGY

Technical Specification

Sl. No	Description	Specifications	QTY
1	Technology	Professional grade Additive Manufacturing Machine/ Rapid prototyping system for industrial use based on genuine FDM Technology capable of producing Physical Models & assemblies to check fitment, form, ergonomics, visualization & jigs and fixtures in ABS material.	01 No
2	Process	<ul style="list-style-type: none">• Process has to be clean and which can be installed in a design office/Academic lab setup.• The process has to be safe and should not emit harmful radiation, hazardous lasers or toxic fumes.• Operator intervention to be minimal and has to be unattended.• The material feed has to be automated and software capable of tracking the material consumption and have a live status update during the build.• The part to be built in closed heated chamber (Enclosed envelope) with uniform heating throughout the chamber .• The calibration XY gantry and Z stage has to be automated no operator intervention.	
3	Build Size	203 x 152 x 152 mm minimum	
4	Materials	<p>ABS Thermoplastic which is Strong, durable, high temperature resistant. Material should be an ideal material for conceptual modelling, functional prototyping, manufacturing tools, and end-use-parts.</p> <p>Temporary Support material removal thru water soluble technology with automated process and should not have undesired holes or manual techniques to remove trapped material in hollow part builds. The support cleaning equipment should be of OEM make and has to be supplied along with the Rapid Prototyping Machine and should be able to clean geometries which are manually inaccessible like undercuts, hollow section inner portion etc</p>	
5	Material Colours	ABS thermoplastic in ivory , other colours are optional	
6	Thermal Property of Model Material	Model Material should be capable of withstanding temperature of 90 to 100 deg. C or more.	
7	Shelf Life of Material	Materials to have a shelf life of at least 36 months from the date of supply.	

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8	Layer thickness	0.25 mm or better
9	Software	<p>Software should be capable of :</p> <ol style="list-style-type: none"> a. Automatic pre-processing with slicing b. Support generation c. Control over how to orient your models in the build chamber d. Part packing and nesting e. A print queue to assign many jobs, with estimated print time and material consumption
10	Necessary requirements of Parts built	<ul style="list-style-type: none"> • Parts to be durable enough for fit form and functional testing. • Should be capable of producing complex assemblies. • Capability to have metal inserts or electronics part like RFID, Chips, Magnets, Sensors etc within the build to cater to functional requirements
11	Facility Requirements	<ul style="list-style-type: none"> • Machine compatible of working in Office/ Academic laboratory environment setup. • The system should be non-laser based and not emit any hazardous radiation. • Vendors to quote for all the accessories for handling the machine and also quote for automated and hands free feed for the raw materials. • Vendors must also indicate the approx. cost of other mandatory facility requirements like vibration free flooring, anti- static environment etc.
12	Disposal of waste, if any	<ul style="list-style-type: none"> • The wastage (if any) has to be non- hazardous and should not require any special procedures / treatments and the wastage has to be cleared by the environmental board. • The materials has to be eco-friendly and completely recyclable as per the local governing norms.
13	Network Connectivity	TCP/IP 10/100 base T Connection Ethernet Protocol
14	Workstation Compatibility	Windows 2000/ XP/7
15	Operator	Easy to use and hands free to the maximum possibility.
16	Cleaning Chamber	Standard SS wave wash chamber with automated process, Qty. 01 No.
17	ABS Material & Soluble Support material cartridges	Complementary stock of ABS material and Soluble Support material must be provided. (One year moderate consumption) Minimum 06 Cartridges of each materials.
18	3D Printer Demonstration	Working demonstration on Technical Specifications for quoted model must be arranged at Chennai immediately, before opening of financial bid for Eligible bidders only.

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19	OEM & Service centre	OEM must have its own branch office in India as well as dealers network and registered regional service centres (South Region) with valid service tax number.	
20	Warranty	Completely comprehensive Warranty for 12 months. During the warranty period, should there be a failure of any parts, these parts have to be replaced free of cost. The comprehensive warranty should cover all the parts of the machine including electrical, electronic and mechanical systems/components. Additional 02 year Extended support warranty.	

10. Additional Requirements:

(Scanned copies of the following documents in the Technical Bid):

- A. All items should be from OEM and Branded products (Assembled product would summarily be rejected).
- B. Materials should have been certified / compliance to standards internationally in all aspects.
- C. Product quoted should have minimum 1-year warranty.
- D. Quotation for more than one model will be rejected
- E. Quotation for End of Sale product/ Model will be rejected
- F. The selected vendor should be able to execute the order within 30 days from the date of release of purchase order.
- G. Detailed specifications should be furnished for the items offered. Product brochures & Literatures should be enclosed in Technical Bid.
- H. A complete list of optional utilities (if any) along with specifications and cost should be given
- I. Installation and demonstration is the part the supply of materials to NIELIT Chennai. No extra cost will be paid for this purpose.
- J. Adequate provision in respect of free services, on-site warranty, maintenance and other facilities should be specified along with the technical bid.
- K. During the warranty period stand by unit shall have to be arranged by the supplier, if the unit could not be repaired within a week of breakdown.
- L. The Vendor shall arrange to demonstrate at NIELIT Chennai, the features and capabilities of the System offered during the technical evaluation, if required.
- M. Delivery period as required by the purchaser should be accepted and expected time of delivery to be indicated.
- N. User manuals, technical manuals and Service manuals are to be supplied while installation.
- O. The supplier has to arrange demonstration (operational training) at NIELIT Chennai at their own cost.

It is compulsory to submit the following Annexures with supporting documents through online (scanned and upload):-

- (i) *Duly filled & Signed Technical Specification Annexure-I and Details of Supplier – Annexure – III (scanned and upload in Technical Bid):-*
- (ii) **Price Bid in BoQ XXXX.xls format.** - Annexure-II

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TECHNICAL BIDS- Annexure - 1			
Product Name			3D PRINTER FDM TECHNOLOGY
Brand Name			
Model			
S.No		Specification	Available Specification (Specify Exact Specification. Do not write Yes/ No)
1	Technology	Professional grade Additive Manufacturing Machine/ Rapid prototyping system for industrial use based on genuine FDM Technology capable of producing Physical Models & assemblies to check fitment, form, ergonomics, visualization & jigs and fixtures in ABS material.	
2	Process	<ul style="list-style-type: none"> • Process has to be clean and which can be installed in a design office/Academic lab setup. • The process has to be safe and should not emit harmful radiation, hazardous lasers or toxic fumes. • Operator intervention to be minimal and has to be unattended. • The material feed has to be automated and software capable of tracking the material consumption and have a live status update during the build. • The part to be built in closed heated chamber (Enclosed envelope) with uniform heating throughout the chamber . • The calibration XY gantry and Z stage has to be automated no operator intervention 	
3	Build Size	203 x 152 x 152 mm minimum	
4	Materials	<p>ABS Thermoplastic which is Strong, durable, high temperature resistant. Material should be an ideal material for conceptual modelling, functional prototyping, manufacturing tools, and end-use-parts.</p> <p>Temporary Support material removal thru water soluble technology with automated process and should not have undesired holes or manual techniques to remove trapped material in hollow part builds. The support cleaning equipment should be of OEM make and has to be supplied along with the Rapid Prototyping Machine and should be able to clean geometries which are manually inaccessible like undercuts, hollow section inner portion etc</p>	

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7	Shelf Life of Material	Materials to have a shelf life of at least 36 months from the date of supply.	
8	Layer thickness	0.25 mm or better	
9	Software	Software should be capable of : <i>a. Automatic pre-processing with slicing</i> <i>b. Support generation</i> <i>c. Control over how to orient your models in the build chamber</i> <i>d. Part packing and nesting</i> <i>e. A print queue to assign many jobs, with estimated print time and material consumption</i>	
10	Necessary requirements of Parts built	<ul style="list-style-type: none"> • Parts to be durable enough for fit form and functional testing. • Should be capable of producing complex assemblies. • Capability to have metal inserts or electronics part like RFID, Chips, Magnets, Sensors etc within the build to cater to functional requirements 	
11	Facility Requirements	<ul style="list-style-type: none"> • Machine compatible of working in Office/ Academic laboratory environment setup. • The system should be non-laser based and not emit any hazardous radiation. • Vendors to quote for all the accessories for handling the machine and also quote for automated and hands free feed for the raw materials. • Vendors must also indicate the approx. cost of other mandatory facility requirements like vibration free flooring, anti- static environment etc. 	
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14	Workstation Compatibility	Windows 2000/ XP/7	
15	Operator	Easy to use and hands free to the maximum possibility.	
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20	Warranty	Completely comprehensive Warranty for 12 months. During the warranty period, should there be a failure of any parts, these parts have to be replaced free of cost. The comprehensive warranty should cover all the parts of the machine including electrical, electronic and mechanical systems/components. Additional 02 year Extended support warranty.	

- ✓ **For Optional Accessories and maintenance terms, attach separate sheets.**
- ✓ **Attach product brochure /technical literature.**

Place :
Date :

Signature of supplier
(With Rubber Stamp)

FINANCIAL BID:

Price Bid in BoQ XXXX.xls format.

Details of Supplier

Duly filled and enclosed with technical Bid.

➤ **Name and Complete address of the firm* :-**

➤ **Contact details:**

Contact Person: _____ **Designation:** _____

Off. Ph. No.* : _____

Mobile No. * : _____

FAX No. * : _____

E-mail No.* : _____

➤ **VAT TIN No..* :-** _____
(Enclose photocopy)

➤ **Central Sales Tax (CST) No* :-** _____
(Enclose photocopy)

➤ **Service Tax /Excise Registration No* :-** _____
(Enclose photocopy)

➤ **Income Tax P.A.N. No.* :-** _____
(Enclosed photocopy)

➤ **Details of ITCC / NSIC / DGS&D Registration.* :-** _____
(Enclose photocopy)

**Compulsory applicable, vendor has to fill up carefully,*

Date:

Name & Signature

Seal of the Firm Address: