



## NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA-769008 (ODISHA)

An Institute of National Importance under Ministry of HRD, GOI

### **NOTICE INVITING TENDER**

**Tender Notification No: NITR/PW/CIF/2018/ 68**

**Dated: 08.10.2018**

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement of **3D Bioprinter with Accessories** at NIT Rourkela.

**Last date of Submission of Bid : 01/11/2018 at 03:00 PM**

**Date of Opening of technical Bid : 02/11/2018 at 03:00 PM**

**For Details:** [http://nitrkl.ac.in/OldWebsite/Jobs\\_Tenders/9Equipment/Default.aspx](http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx)

**Contact:** Prof. Mukesh K. Gupta, BM; Ph: 0661-2462294

Email: [guptam@nitrkl.ac.in](mailto:guptam@nitrkl.ac.in)

Bidding through: <https://eprocure.gov.in/eprocure/app>

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REGISTRAR



# NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA-769008, ODISHA

(TENDER NOTICE NO: NITR/PW/CIF/2018/68

dated: 08.10.2018)

(Purchase of 3D Bioprinter with Accessories)

Sl. No.	Description of Goods/Service	Quantity
1.	3D Bioprinter with Accessories (Detailed specification as per attached Annexure – I)	01

1. **Quantity required** : as mentioned above (All information provided in technical specification in Annexure I)
2. **Delivery** : Within **90 days** from the date of purchase order
3. **Last date of Submission of Bid** : **01/11/2018 at 03:00 PM**
4. **Date of opening of technical Bid** : **02/11/2018 at 03:00 PM**
5. The firm should not have been black listed at any time.
6. The submission of following bids by the tenderer should be through <https://eprocure.gov.in/eprocure/app> . Please follow the guidelines as per the portal.

### Purchase of 3D Bioprinter with Accessories

**(Tender Notice No: NITR/PW/CIF/2018/68, dated 08.10.2018) Due on 01/11/2018 at 03:00 PM**

7. Liquidated damage clause will be charged for any delay in supply of goods.
8. The validity of the tender shall be **90 days** from the date of opening of the bids.
9. Detailed advertisement including all tender documents is also available in our website at [http://nitrkl.ac.in/OldWebsite/Jobs\\_Tenders/9Equipment/Default.aspx](http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx)
10. NIT reserves the right to qualify or deny prequalification of any or all applicants without assigning any reasons.

**(REGISTRAR)**  
**NIT, Rourkela**  
**Fax No- 0661-2462022**  
**Ph. No -0661-247202**

**(Detailed Specification of 3D Bioprinter with Accessories)**

A complete system of benchtop 3D Bioprinter, including operating software and accessories, for bioprinting of living cells, proteins and biomaterials such as collagen, bio-gels etc. to biofabricate three-dimensional living tissue.

The detailed specifications are as follows:

- The bioprinter should be capable of directly bioprinting the living cell suspensions into hydrogels, bio-gels or other biomaterials such as collagen, gelatin, fibrin, polyethylene glycol, Pluronic F-12 etc. to build three-dimensional human parts such as lattices, cell culture, blood vasculature, cartilages etc. with a resolution of 100 micron or better.
- It should use compressed air or other cell-friendly technology to force the living cells to go from the nozzle and build the cell layers without significantly affecting the cell viability.
- Building platform: The system should be able to bioprint onto multi-well plates, petri dishes or other platform attachments which could be fixed to minimize vibrations to printed parts.
- Print heads: Living cell-friendly heated pneumatic/ Ink-jet/ Thermoplastic filament extruder/ Cooled pneumatic/ Extra heated pneumatic/ Syringe pump print head with Photo curing tool head. At least 4x Heated pneumatic print head and 2x Syringe pump print head should be provided.
- Filter: HEPA or ULPA or similar filter with a retention rate of 99.9% or better with or without pre-filter.
- Software: Compatible operating software package for 3D designing with STL converter, 3D printing and dispensing control should be integrated with the system. Desktop PC or Laptop with suitable configuration for compatibility with 3D designing should be provided.
- Body Frame: Coated aluminum or metal frame body that can be placed on to a lab/customized stand.
- Electrical conditions: The machine should be operable at standard electrical settings of India. Suitable online UPS should be provided to operate the machine for at least 1 hour in electrical failure.
- The equipment must be provided with at least one year of warranty and all accessories, including online UPS, to allow immediate use after installation and operation electrical settings of India (220-240 V).