



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008 (ODISHA)**

An Institute of National Importance under Ministry of Education, GOI

NOTICE INVITING TENDER

Tender Notification No: NITR/PW/FP/2020/209

Dated: 02/12/2020

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement of **COLD PLASMA equipment with all Accessories** at NIT Rourkela.

Last date of Submission of Bid : **22/12/2020 by 11:00 AM**

Opening date of techno-commercial Bid : **23/12/2020 at 11:00 AM**

For Details: http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx

Contact: Dr. Arun P Venugopal

Department of Food Process Engineering,

Phone No.: +91-7006397480

Email ID: varun@nitrkl.ac.in , dwivedim@nitrkl.ac.in

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

**Sd/-
REGISTRAR**



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008, ODISHA**

OPEN TENDER NOTICE NO.: NITR/PW/FP/2020/209

Dated: - 02/12/2020

Procurement of Cold Plasma Equipment with all accessories

| SL.NO | Description of Goods/Service | Quantity |
|-------|--|---------------|
| 1. | COLD PLASMA equipment with all Accessories (As per the specification mentioned in Tender Documents) | 1 unit |

1. Quantity required : **As mentioned above (All information regarding technical specification provided in the Specifications for Cold Plasma equipment with Accessories)**
2. Delivery : Within **90 days** from the date of purchase order
3. **Last Date of submission of Bid : 22/12/2020 by 11:00 AM**
4. **Date of opening of techno-commercial bid : 23/12/2020 at 11:00 AM**
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.

**Procurement of COLD PLASMA equipment with all Accessories
(Open Tender Notice No.: NITR/PW/FP/2020/209 Dated: 02/12/2020)
Due on 22/12/2020 by 11:00 AM**

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 techno-commercial 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 .
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 -0661-2462021**

DETAILED TECHNICAL SPECIFICATION

Specifications for Cold Plasma equipment with Accessories:

Sealed tender bids are invited from reputed/authorized vendors/companies for cold plasma equipment with following tender specifications.

SPECIFICATION FOR COLD PLASMA ALL SHOULD BE FULLY SOFTWARE CONTROLLED

- 1. Cold plasma reactor for treatment of solid and liquid food products based on dielectric barrier discharge configuration**
- 2. Should provide high voltage sinusoidal output of up to 50 kV_{RMS} (approx. 140 kV_{peak to peak}) at industrial frequency**
- 3. The voltage must be variable**
- 4. Should operate using standard single-phase input supply**
- 5. Should not require any external amplifiers or pulse width modulation circuits**
- 6. Must have in-built digital current meter and voltage meter**
- 7. Power meter must be included for recording power consumption**
- 8. Should include overcurrent and short-circuit protection**
- 9. Should provide current limiting and auto shutdown features**
- 10. Should feature zero-locking of variac for user safety**
- 11. The plasma treatment set-up should provide the ability to vary the discharge gap up to 3 cm**
- 12. Provision for continuous treatment of solid food products on a conveyor belt with variable belt speed technology**
- 13. A reactor head for plasma activated water production using microbubble technology for at least 4 litres of water**
- 14. The electrodes should be made from solid aluminium blocks. High-quality grade of aluminium should be used to ensure a long life**
- 15. Additional dielectric barriers should be included for replacement, if needed**
- 16. Instrument & Software Qualification Service & Certification & Validation: The instrument must be Qualified along with the Software.**
- 17. Branded Desktop Computer with minimum 16 GB RAM, Original Windows 10, 64 BIT, 500 GB Hard-disk must be supplied along with a suitable UPS for Desktop computer.**
- 18. Warranty: 12 months comprehensive on the entire instrument.**
- 19. Detailed hardware & application training must be provided by the vendor.**
- 20. The pre-installation guide for the details on electrical power, space and other for all components and essential accessories must be submitted along with the Bid.**

| Other Requirements | |
|---|--|
| Demonstration of instrument performance. | The supplier should demonstrate the working of the equipment by detecting some compounds of interest at the time of installation of the equipment. The acceptance would be subject to meeting the required criterion. |
| Manuals | 1 set of detailed operation, servicing and Programming manual should be provided in both soft form as well as Hard copy. Language should be English only. |
| Installation | The satisfactory installation to the full specifications of the machine with all accessories at NIT Rourkela campus. Any additional equipment/accessory for the installation of the system should be quoted invariably. NIT Rourkela will provide only space and electrical connection along with necessary solvents for running the equipment. |
| Training | Supplier should provide a comprehensive and free training to NIT Rourkela engineers for at least 3 working days on operation and preventive maintenance of the SDR modules. |
| Warranty | 01 Year Standard Warranty (Front line service to be done at customer place & if any cards/modules are to be replaced can be taken to service center & back to bench service charges to be borne by Bidder). The Original End Manufacturer (OEM) should have Calibration and other maintenance support facility located in India. |

| Guarantee / Warranty and after sales technical support |
|---|
| The tender must be quoted with one year on-site comprehensive Warranty/Guarantee commencing from the date of complete and satisfactory installation of the equipment against the defect of any manufacturing, workmanship and poor quality of the components. The bidder also must agree and issue a certificate stating that technical query will be responded within 7 working days and the support will be provided within 21 working days from the date of reporting of the technical failure for down time free operation of the instrument. |
| Operation and service manual in English (electronic and hard copy) should be provided with all the equipment and components. |
| In the technical details, specify clearly about the kind of service/maintenance required for the system. Also mention that whether the service has to be carried out by a company engineer or it can be carried by trained service personnel within India. |
| The complete training of all measurement options should be free for NIT Rourkela user staff/students' members, onsite. |
| Enclose pre-installation guide for the details on electrical power, space and other for all components and essential accessories. |
| The manufacturer has to stand guarantee for the relocation of the system from the present campus of NIT Rourkela to any other place if any in future. |