



सत्यमेव जयते

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
BHABHA ATOMIC RESEARCH CENTRE  
VISAKHAPATNAM



भारता परमाणु अनुसंधान केंद्र  
BHABHA ATOMIC RESEARCH CENTRE

Computational Analysis Division

Ref: CAD/HEDM/WO/IND/21-22/25

Date: 17/02/2022

**SUBJECT: Notice inviting tender for “2D and 3D drafting of experimental system components including mechanical, vacuum and electrical parts using drafting software” (See Annexure-I).**

1. **Scope of work:** See details in Annexure-I.

2. **General guidelines for submitting tender**

- You shall send your offer in a **sealed envelope** indicating delivery period, price inclusive of taxes and other relevant information by speed post to:

Head,  
Computational Analysis Division  
Bhabha Atomic Research Centre  
Village: Madturu (Sub: P.O.)  
Anu Vihar Campus, Mekarasi Hill,  
Near Nagavaram Junction,  
Gajuwaka-Yellamanchilli Highway  
Atchutapuram, Visakhapatnam  
Andhra Pradesh- 531011

(Kind Attention: Rahulnath P.P., SO/D,CAD, 0891-283-2149/ 8985875318)

- Quotation shall reach us on/or before **17/03/2022 by Speed Post/Courier/ Only.**
  - On top left corner of the envelope please indicate Quotation for– **“2D and 3D drafting of experimental system components including mechanical, vacuum”** and **due date 17/03/2022.**
  - Overwriting, scratching etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorized person from the firm shall countersign such figure.
  - The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.
  - **Vendor shall mention clearly the PAN /TAN no. on quotation.**
  - **GST number shall be clearly mentioned on Quotation.**
  - All the charges and taxes shall be mentioned clearly.  
**Please note that BARC being an R&D institution, GST rates are as follows**
    - For Intra-state Supply of Goods: @ 2.5% SGST + 2.5% CGST
    - For Inter-state Supply of Goods: @ 5.0% IGST
    - **GST exemption certificate shall be issued to the supplier.**
- (This is as per Office Order No. BARC/GST/12/2017 dt. 27.12.2017)
- You may contact us for any clarification before **17/03/2022** (Shri. Rahulnath P.P., 0891-2832149,8985875318 [rahulnath@barc.gov.in](mailto:rahulnath@barc.gov.in))

3. **Rates:** As per Scope of Work.

**4. Place of Delivery/Work:**

PEB-04, CAD  
Bhabha Atomic Research Centre  
Near Nagavaram Junction,  
Gajuwaka-Yellamanchilli Highway  
Atchutapuram, Visakhapatnam  
Andhra Pradesh- 531011

**5. PAYMENT TERMS:**

1. Part payment/Advance or against delivery cannot be made.
2. Payment will be made only after satisfactory completion of work and on production of (along with Delivery Challan):
  - i. Bill/Invoice containing Location of supply, separate tax components along with PAN and GSTN numbers.
  - ii. Advance Stamped Receipt.
  - iii. Bank Account No, Bank and Branch name with IFSC code.
  - iv. Undertaking stating that GST has been promptly deposited with the authorities
3. It may be noted that:
  - i. Income tax @2% will be deducted from your bill.
  - ii. TDS (under GST) will be deducted as applicable from your bill of taxable goods and/or services, where the total value of such supply exceeds 2.50lakh.
  - iii. Declaration confirming filing of Income Tax Return from immediate two preceding years, in accordance with Section 206 AB of the Income Tax Act 1961, has to be submitted in the prescribed proforma along with necessary acknowledgements in support of declaration. In case the aforesaid declaration is not submitted, TDS/TCS shall be deducted at higher rates as instructed under the provisions of Income Tax Act.

**5. CONFIDENTIALITY CLAUSE:**


No, party shall disclose any information to any third party, concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

"Restricted information "categories under section 18 of the Atomic Energy Act,1962 and "Official Secrets" under section 5 of the official secrets act, 1923.

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC's name without permission for publicity purposes. The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public medial like press, radio, T.V. or Internet without the prior written approval of BARC.



(Rahulnath P.P.)  
SO/D, CAD

Phone: 0891-283-2149,

Email: [rahulnath@barc.gov.in](mailto:rahulnath@barc.gov.in)

### Scope of Work

Description: **2D and 3D drafting of experimental system components including mechanical, vacuum and electrical parts using drafting software**

1. **Pre-bid meeting is mandatory:** Pre-bid meeting must be held with the indentor regarding the type of drawings need to be carried out.
2. The drafting has to be done in SolidWorks software.
3. The drafting work **has to be carried out at purchaser's site.**
4. The contractor has to **depute one draftsman for a period of 11 Months.**
5. The work has to be completed within **12 months** from the date of issue of order.

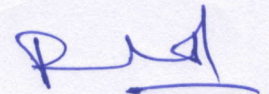
*The details of work are detailed below;*

1. **3D and 2D drafting** is to be done for experimental system (already existing) and those that will be added during the course of time.
2. The work is to be executed **On-site**. System with **SolidWorks Version 2020** software will be assigned for the work.
3. The system consists of Mechanical parts including trolleys, support structures, trusses, etc.,
4. Electrical components like switch, battery, bus bars, wiring etc. and electronic components such as control systems.
5. Vacuum components include vacuum ports, flanges, vacuum vessels etc.
6. 3D drafting of each and every component and its connection are to be made.
7. **Part drawing** of each component and connections to its exact dimension is to be made.
8. Parts are to be then **assembled** as laid out in the experimental facility.
9. **The final assembled drawing** should be such that any update made in the experimental facility must easily be employed in the drawing.
10. 2D drawing of each part should be made in **.pdf** format with ready to edit **.dwg** file.
11. **2D electrical circuit diagram** has to be made. Handmade circuit diagram would be given for reference.
12. **Animation/simulation** of components and assemblies to demonstrate the working of system must be done if necessary. It should have a real time experience.
13. **Electrical fittings** must be properly drawn to shown the connections.
14. **Fasteners** eg. Bolts, Nuts, Studs, Screws etc must be drawn to ensure real life effect.
15. **3D Visualization effects** must be provided to ensure photo quality images to the drawings. The feature must ensure to the 3D drawings a real world effect.
16. **Interactive stickers** placement just like real life stickers.
17. It should render a number of user specified images from around the model and stitch them together so that the model can be viewed from all angles.
18. **Panoramic output** should be also possible in which a number of rendered images can be stitched so that we obtain a complete 360<sup>0</sup> view.

Minimum quantity of drawings needs to be done is mentioned below. Please see the below table for the main volume of work to be done;

<u>Sl.No</u>	<u>Items</u>	<u>Quantity to be drawn</u>
01	Mechanical components	1. Trolleys (0.5mx0.5mx1.5m): 30Nos. 2. Support structures (0.5x1.0x2m): 50Nos. 3. Trusses (5m): 20No. 4. Workbenches: 10Nos. 5. Couplers: 30Nos.
02	Electrical Circuit diagram	1. 2D diagram: 10No.
03	Fasteners	1. Bolts (M6,M8,M10):100Nos. 2. Nuts (M6,M8,M10):100Nos. 3. Washers (M6,M8,M10):100Nos.
04	Electrical Joints/couplers	1. Copper bus bars 25mmx3mm thick-50Nos.
05	Vacuum components	1. CF ports and flanges: 40Nos. 2. Vacuum vessel:05Nos.


<u>Sl. No</u>	<u>Drawings</u>	<u>Quantity(Nos.)</u>	<u>Drawing Size</u>
01	Part drawing	200	A4
02	Assembly drawing	50	A3
03	2D drawing(made from above part and assembly drawing)	400	A4
04	Electrical Circuit diagram	10	A3



(Rahulnath P.P.)  
SO/D, CAD

## GENERAL CONDITIONS

1. Only **Indian Nationals** will be permitted inside the campus.
2. Vendor should depute technically qualified staff with good experience in CAD design and drawing.
3. The staff should be appointed for a **minimum of 11 Months** as the present system/facility is liable to be modified during this time.
4. **Office timing** 9.30AM-5.30PM Monday-Friday except public holidays.
5. The vendor can depute a **maximum number of 2 persons** for working on the system at a time.
6. Vendor or his/her staff will be **strictly restricted** to carry any technical papers/documents/drawings (hard or soft) out of the facility without valid authorization.
7. **All costs** related to travel, hotel, food, transportation during the period must be borne by the vendor.
8. Staff/Vendor is **not liable for any medical facility or compensation** in case of any injury or mishap during the course of project work.
9. The Staff is required to submit an "**Undertaking**" in the prescribed format of BARC stating rules and regulations, code of conduct inside B.A.R.C. premises.
10. The staff is required to submit in prescribed format "**Deed of Undertaking**" stating that she/he will not make any claim against the Government of India against any injury or loss occurred during the work period.
11. All the workers arranged by the contractor shall be physically and mentally fit. Department shall not be responsible for any untoward incident during the work.
12. Necessary man-power should be holding **ITI certificate/Equivalent or Experience certificate** for the corresponding jobs.
13. The staff/vendor should have adequate medical insurance coverage. No draftsman will be allowed to operate if they fail to produce necessary **medical insurance** certificates.
14. **Police verification certificate** for is mandatory for entry into purchaser's site. The contractors are requested to obtain the same, in case work order is placed with them.
15. As per prevailing security regulations, the contractor is required to obtain **valid entry passes** from the security section for working inside BARC, for which related documents will be required to be submitted.
16. The quality of workmanship shall conform to high engineering standards and strictly as per instructions of engineer in charge (EIC) of job.



Rahulnath P.P.  
SO/D, CAD

### Contact Persons:

- a) **Shri. Rahulnath P.P.**  
Computational Analysis Division, BARC  
Contact details: [rahulnath@barc.gov.in](mailto:rahulnath@barc.gov.in)  
Phone: 0891-2832036, 8985875318