



COTTON UNIVERSITY

Panbazar, Guwahati, Assam-781001
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No.: CU/R&D/BRNS Project/Prof. J. J. Das/2025/105/700

Dated: 23/10/25

Advertisement for the position of Post Doctoral Research Associate

Advt. No. Recruitment/CU/2025/11

Dated: 10.10.25

Cotton University is inviting applications from outstanding candidates for a Research Associate position (Post Doctoral Research Fellow) in the BRNS project with details given below:

Sanction No.	Date of Commencement	Investigators
57/14/05/2025 BRNS/699_ dated 11/9/25	11 September 2025	Cotton University: Dr Jiban Jyoti Das, Dr Abhijit Barthakur BARC: Dr P C Rout, Dr S Santra
Title	“Development of reaction chambers and differential pumping sections of a window less gas target (WLGT) for nuclear astrophysics experiments” (Mega Science Scheme)	

The project is part of the window less gas target (WLGT) being developed for nuclear astrophysics experiments by BARC in collaboration with Cotton University. It will be installed at BARC-TIFR Pelletron LINAC Facility at Mumbai and expected to be used with beam from PLF. The post doctoral research associate is expected to work in the technical aspects: design, simulations, procurement, installation and commissioning of the device.

Terms & Conditions for selection of candidates for interview and appointment:

1. Essential qualification:

- PhD in Physics in experimental Nuclear Physics, high energy physics or in a closely associated discipline.
- Must have a Master's degree in Physics or Nuclear Engineering or Radiation Physics with first class in master's degree and in all qualifying examinations starting from class-X.
- At least 3 years of research experience in any of the following: experimental Nuclear physics, High Energy physics, Atomic/Molecular Physics etc..
- Verifiable evidence of solid expertise in the domains listed under item 2 is required.
- At least one publication in a reputed international journal in the domain of the project is essential

2. Position Responsibilities RA-1 (18 months)

- **WLGT Layout at PLF:** Work out the detailed layout of the WLGT facility at the beam hall of BARC-TIFR PLF. This involves high level of understanding of beam line hardware, standards of vacuum and pressure system flanges & adapters, pumping system hardware identification for various pressure regions.

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- **Final Simulations of WLTG incorporating PLF layout:** Modify the preliminary CAD model for final applications at PLF, Optimize the simulation of differential pumping system and mass flow taking into account modifications required. Perform GEANT4 simulations
- **CAD model for fabrication:** Prepare the final 3D CAD model of all parts and subparts of the WLTG hardware for final assembly at PLF, Design necessary brackets & support stands,
- **Procurement:** Vendor identification and Placement of the purchase orders.
- **Setting up of utilities in the lab space:** Identify and work out details of electrical power, water chiller, gas cylinder storage and compares air connections, control and cables for measurement system
- **Publication:** Prepare a comprehensive design report along with various simulations and send for publication

3. Appointment conditions & salary:

- The position is purely temporary and will last till funding is available for the project.
- The appointment is initially for 1 year and may be extended up to 18 months.
- Initial starting salary will be in the range of approximately Rs 67,000-73,000 p.a + medical allowance as per Cotton University rules. No other allowances are admissible
- Leave and conduct rules will be as per Cotton University guidelines.
- The place of working will be both at BARC Mumbai and Cotton University. The candidate must be willing to travel.
- Students about to submit PhD thesis are also eligible to apply. But appointment at regular salary will start only after award of PhD degree.
- For exceptionally qualified candidate with required qualifications and hands on experience, the position may be offered to a candidate who did not receive PhD degree on the date of interview. In such cases, the selected candidate will be offered salary of a guest faculty at the prevailing rate till the award of the degree. Currently the amount is Rs 21600 pm (fixed)

4. Mere possession of essential and desirable qualifications is not sufficient ground for offering the appointment.

5. No TA/DA will be offered for appearing in the interview. For candidates appearing for online interview must make their own arrangement for appearing in the appointment.

6. The decision of the interview committee along with representatives of DAE will be final.

7. Application must be submitted on or before 8th November 2025. It may be emailed to: abhijit.barthakur@cottonuniversity.ac.in Contact No: 94351-09190

Abhijit Bartha
Registrar
Cotton University
Panbazar, Guwahati, Assam-781001
23/10/25

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Prof. J. J. Das/2025/105/ Dated: 23/10/25

Copy for information and necessary action to:

1. PS to Vice Chancellor, CU



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2. Academic Registrar, CU
 3. Dean, R&D, CU
 4. Dean, PCM, CU
 5. Head, Department of Physics, CU
 6. Prof. J.J.Das, PI
 7. Finance Officer, CU,
 8. System Manager, CU to upload this notice in the University website.
 9. Office File