



Ref: CMS Project/JRF-Selection-2025

21/04/2025

The Department of Physics, Visva-Bharati is one of the groups from India participating in the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider (LHC), CERN, Geneva with funding from the Department of Science & Technology, Government of India. More than 3000 scientists and PhD students from leading institutes of the world are participating in this experiment to study of the properties of elementary particles and searches for new particles.

The Visva-Bharati group contribute to the following areas.

1. Analysis of the large volume of data with emphasis on study of Quantum Chromodynamics – structure of jets, event shape variables, etc;
2. R&D related to detector, particularly electronics and instrumentation.
3. Operation & maintenance of the detector.

Applications are invited from motivated students for the following positions.

Junior Research Fellow/ Project Associate (3 positions)

- I. **Position 1** – *The candidate will take part in analysis of pp collision data collected by the CMS Experiment from the Run III of the LHC and contribute to operation, maintenance and upgrade of the CMS detector.*

Essential Qualifications:

M. Sc. in Physics with at least 60% marks or equivalent grade.

Desirable Qualifications:

- a. Knowledge of Particle Physics, particle detectors.
- b. Knowledge of computer programming – Python, C, C++.

- II. **Positions 2, 3** – *The candidates will take part in R&D related to the CMS detector upgrade, detector related electronics/ instrumentation, installation and commissioning of detector modules, and contribute to operation, maintenance and upgrade of the CMS detector.*

Essential Qualifications:

M.Sc. (Physics) with Electronics specialization, or, M.Sc. (Electronics) with at least 60% marks or equivalent grade.

Desirable Qualifications:

- a. Knowledge of simulating electronic circuits.
- b. Knowledge of particle detectors, detector related instrumentation.
- c. Knowledge of computer programming – Python, C/C++.

Remuneration – Rs. 25,000 + HRA; candidates who have qualified UGC-CSIR NET/ GATE



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will be paid Rs. 37,000 + HRA.

Duration: 3 Years. May be extended with availability of funds.

Applications along with self-attested photocopies of supporting documents (self-attested copies of marksheets and NET/GATE certificates) should reach by post/ email by **29/04/2025**.

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