

**INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE DEPARTMENT OF  
HYDRO AND RENEWABLE ENERGY**

**ADVERTISEMENT TO FILLUP PROJECT POSITION**

Applications are invited from Indian nationals only for project position(s) as per the details given below for the consultancy/research project(s) under the Prof Arun Kumar, Principal investigator, Department of Hydro and Renewable Energy, Indian Institute of Technology, Roorkee.

1. Title of project: Centre of Excellence – Research and development of Ultra Low Head (ULH) and Hydrokinetic Turbines and performance prediction of small hydro turbine model/projects
2. Sponsor of the project: Ministry of New & Renewable Energy (R&D Division)
3. Project position(s) and number: Project Fellow / Research Associate – 1 no. (screw low head turbine / other low head turbine)
4. Qualifications:  
Educational: Ph.D. or M. Tech. in Mechanical/Hydropower/Aeronautical / Civil Engineering having Design and CFD based work of hydraulic turbine / rotating machine / aerodynamics

Those who are having only M Tech and less than 3 year experience shall be considered for research associate.

Desirable Skills: Design Software (Solidworks or equivalent 3D CAD tool), CFD (Ansys CFX or equivalent FVM tool), FEM (Ansys or any equivalent FEM tool) with static and transient simulation experience.

5. Emoluments: Project Fellow: Rs. 40,000/- to Rs. 1,00,000/- + HRA per month  
Research Associate: Rs. 30,000/- to Rs. 75,000/- + HRA per month  
(Emolument shall be fixed as per suitability and experience of the candidate)
6. Duration: 1 year or up to project completion date (project completion period two years)
7. Job description:
  - a. Carry out literature survey regarding screw turbine and collection of data related to hydropower potential in India
  - b. Design of ULH, especially screw turbine
  - c. Perform CFD simulation (pre and post processing) for designed screw turbines
  - d. FEM analysis of screw turbine component for varying hydrodynamics loads
  - e. Model testing of ULH turbine, analyzing the data, report preparation
  - f. Define the standard procedure and guidelines for CFD analysis and model testing of screw turbine.

**Conditions:**

- i. Candidates before appearing for the interview shall ensure that they are eligible for the position they intend to apply.
- ii. Candidates desiring to appear for the Interview should submit their applications with the following documents to the office of Principal Investigator through email, by post or produce at the time of Interview:
  - Application in a plain paper with detailed CV including chronological discipline of degree/certificates obtained.
  - Experience including research, industrial field and others.
  - Attested copies of degree/certificate and experience certificate.
- iii. Candidate shall bring along with them the original degree(s)/certificate(s) and experience certificate(s) at the time of interview for verification.
- iv. Preference will be given to SC/ST candidates on equal qualifications and experience.
- v. Please note that no TA/DA is admissible for attending the interview.

The last date for application to be submitted to office of Principal Investigator is Sept 20, 2024 by 5 PM.

**(ARUN KUMAR)**  
Principal Investigator

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\*To be uploaded on IIT Roorkee website and copy may be sent to appropriate addresses by PI for wider circulation.