No. HRED/ R-298/
Dated: July 08, 2026

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 Dr 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:

   (i) Project Fellow / Research Associate* (for Development of CFD guidelines) – 1 no.
   (ii) Project Fellow / Research Associate* (screw low head turbine / other low head turbine) – 1 no.
   (iii) Project Fellow / Research Associate* (for Hydro Kinetic turbine development) –1 no.
   (iv) Project Fellow / Research Associate* (for mechanical design of model and prototype turbine) – 1no.

4. Qualifications and Experience:

   For 3(i) Ph.D. in Mechanical/Civil/Hydropower Engineering or relevant discipline having CFD/design-based work in hydro turbine/ Pump
   Or
   M Tech in Mechanical/Civil/Hydropower Engineering or relevant discipline with 3-year experience in CFD/ design of hydro turbine / pump

   For 3(ii) Ph.D. Or M. Tech. in Mechanical/Hydropower/Aeronautical / Civil Engineering or relevant discipline having Design including solid work and CFD based work of hydraulic turbine / rotating machine / aerodynamics

   For 3(iii) Ph.D. in Aerospace/Mechanical/Mechatronics/Civil/ Hydropower Engineering or relevant discipline having CFD/design or fabrication of proto type hydro turbine / Pump OR related areas
   Or
   M Tech in Aerospace/Mechanical/Mechatronics/Civil/ Hydropower Engineering or relevant discipline with 3 years' experience in CFD/ design or fabrication of proto type hydro turbine/pump OR related areas

   For 3(iv) Ph.D. in Mechanical/Mechatronics/Civil/ Tribology/ Hydropower Engineering or relevant discipline having CFD/design-based work preferably with solid work / testing in hydro turbine / Pump OR related areas
   OR
   M Tech in Mechanical//Mechatronics/ Civil/ Tribology/Hydropower Engineering or relevant discipline with 3 years' experience in CFD/design preferably with solid work / testing of hydro turbine/pump OR related areas

   **Those who are having only M Tech and less than 3-year experience shall be considered for Research Associate.*

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

6. Duration: 1 year or up to project completion date

7. Job description:

   - Preliminary assessment based on the secondary data available from government sites and reports, visits to potential sites of ultra low head and hydrokinetic energy, coordination and compilation with agencies having the details of canals, rivers, outfall structure and dam toe.
   - Setting up of laboratory & design of hydro kinetic turbine, CFD simulation & carry out design, model test and

fabrication of proto type hydro kinetic turbine, analyzing the data, report preparation

- Carry out CFD simulation of Francis/ reversible pump turbines for development of standard procedure and guidelines and model testing, scientific report writing.
- Carry out laboratory and field test regarding Ultra low head and screw turbine
- Design and field testing of hydro kinetic turbine, perform CFD simulation (pre and post processing) for designed turbines
- FEM analysis of turbine component for varying hydrodynamics loads
- Model and field testing of ULH turbine, analyzing the data, report preparation
- Define the standard procedure and guidelines for CFD analysis and model testing of 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 tothe 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 timeof 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 July 30, 2026 by 5 PM.

Arun Kumar

ARUN KUMAR
Principal Investigator

Email: arun.kumar@hre.iitr.ac.in

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

APPROVED

Dean
Sponsored Research & Industrial Consultancy
Indian Institute of Technology Roorkee
Roorkee-247 667 (INDIA)

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