

INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE
Department of Mechanical and Industrial Engineering

Dated: 17-11-2022

ADVERTISEMENT TO FILL UP PROJECT POSITIONS*

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 Principal investigator (Name: Krishna Mohan Singh), Department of Mechanical and Industrial Engineering, Indian Institute of Technology, Roorkee.

1. **Title of project: Large-eddy simulation of flow instabilities in hydraulic turbines at off-design operation**
2. **Sponsor of the project: CPRI (Ministry of Power), Bangalore**
3. **Project position(s) and number: Senior Research Fellow (SRF) – 01**
4. **Qualifications**

B. Tech. in Mechanical Engineering/Production Engineering and M. Tech. in Mechanical Engineering or equivalent with specialization in Fluid/Thermal/Turbomachinery/Applied Mechanics. **Candidates must have qualified GATE.** Candidates should have minimum 2 years' experience after Masters' degree.

The candidates with exposure and interest in fluid mechanics, CFD, hydrodynamic machines, and design and programming software like PRO-E, CATIA, OpenFOAM and Linux will be given preference. **Expertise in C/C++ programming is essential.**

5. **Emoluments:** Rs. 35,000 per month + HRA as applicable
6. **Duration: 1 year**
7. **Job description:** The project aims to analyze flow instabilities in Francis turbines during transient and off-design operations using large eddy simulation. It requires development of a computational platform for LES of flow in hydraulic turbines. The SRF would work on development of a simulation tool-kit in OpenFOAM for turbine flow, and carry out detailed numerical simulations using this tool-kit.

1. Candidates before appearing for the interview shall ensure that they are eligible for the position they intend to apply.
2. Candidates desiring to appear for the Interview should submit their applications with the following documents to the office of Principal Investigator through **email only as a single pdf file** in the following order (failing to which application will not be considered for shortlisting procedure):
 - Application in a plain paper with detailed CV including chronological discipline of degree/certificates obtained.
 - Experience including research, industrial field and others.
 - Copy of Gate Score Card and copies of degree/certificate and experience certificate.
3. Candidate shall bring along with them the original degree(s)/certificate(s) and experience certificate(s) at the time of interview for verification.
4. Preference will be given to SC/ST candidates on equal qualifications and experience.
5. Please note that no TA/DA is admissible for attending the interview.

Note: The selected candidate may get an opportunity for PhD admission.

The last date for application to be submitted by **e-mail** to Principal Investigator is 28/11/2022 by 5 PM.

The interview will be held at IIT Roorkee on December 5, 2022. Details of venue and timing will be sent to the shortlisted applicants.

Tel: +91-1332-285414

Email: krishna.singh@me.iitr.ac.in

Name and signature of Principal Investigator

Krishna Mohan Singh
(K M SINGH)

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

Approved

Abshar
18/11/22

डीन (सिक)/(Dean SRIC)
Roorkee 19-11-22 भा. प्रौ. सं. रुड़की/IIT Roorkee
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