

Date: 28 May 2021

Advertisement for post of Facility Manager at Indian Institute of Science (IISc)

Facility Manager for the Low-speed Wind Tunnels at the Department of Aerospace Engg., IISc

The Department of Aerospace Engineering at IISc houses several low-speed wind tunnels that are used for research and industrial consultancy purposes. This consists of the Open Circuit Wind Tunnel (OCWT; 14ft x 9ft test section; largest in India), several other low speed tunnels of smaller size and one closed-circuit water tunnel. A large variety of instrumentation, such as force balances, dynamic force rigs, hotwire anemometry, Particle Image Velocity (PIV), probes for measuring unsteady pressure, and data-acquisition systems, is used for carrying out measurements in these facilities. There are nearly 20 students and staff working at these tunnels doing research and testing. The OCWT is the largest wind tunnel facility of its kind in India and is primarily used for industrial consultancy; it has catered to almost all the national aeronautical and space programmes so far. The OCWT also houses a CFD centre, to carry out combined experimental and computational studies. The Department now seeks to recruit a Facility Manager who will have overall responsibility for the operation of these low-speed wind tunnels and whose duties will include:

- **Ensuring proper and effective functioning of the wind tunnel facilities including the heavy-duty equipment and measuring instrumentation. Ensuring high up-time through routine maintenance and liaison with suppliers and service providers.**
- **Designing and fabricating challenging wind-tunnel experiments and executing them successfully. Participating in collaborative research activities with faculty members and students.**
- **Assisting the tunnel in-charge in handling large-scale industrial consultancy projects involving communicating with the clients, making test models, carrying out wind tunnel tests in the required time, analysing data to client satisfaction and writing technical reports.**
- **Using advanced diagnostic facilities to carry out measurement of wind velocity, surface pressure, displacement, forces and moments, etc.**
- **Managing support staff involved in running the different wind tunnel facilities at the Department.**
- **Assisting the faculty in-charge of the tunnels in generating financial resources through extra-mural and consultancy projects to keep the facilities financially viable.**
- **Any other duties as assigned from time to time.**

Essential qualifications:

- **PhD degree in Aerospace/Mechanical Engineering in the area of experimental aerodynamics (wind-tunnel experiments) OR MTech/MSc(Engg) in Aerospace/Mechanical Engineering with at least four years of experience in wind tunnel testing.**

- **Hands-on experience with the basic and advanced measurements tools typically used for conducting wind-tunnel tests (including the data acquisition system).**
- **Ability to manage large and complex projects, involving different types of tests to be carried out on a variety of wind tunnel models that may have to be designed and developed in-house.**
- **Excellent communication, writing and inter-personal skills.**

Desirable Qualifications:

- Experience in programming for data acquisition systems using LabView/MATLAB.
- Experience/familiarity with using machine and fabrication tools to help in supervision of the technician jobs.
- Experience/familiarity with using data processing and analysis tools such as statistical analysis, Fourier analysis, modal decompositions etc.
- Experience in using large wind tunnel facilities.
- Research Publications in the area of experimental aerodynamics.
- Exposure to CFD analysis on industrial models.

Remuneration and Benefits:

- MTech + 4 years' experience: Rs 70,000 p.m. + HRA
- PhD in the relevant area: Rs 80,000 p.m. + HRA
- PhD + 2 years' experience: Rs 90,000 p.m. + HRA

Terms of Appointment:

This is a contract appointment, initially for one year and renewable thereafter based on an annual evaluation of performance.

Interested candidates may apply by email to Dr Sourabh S Diwan, Department of Aerospace Engineering, Indian Institute of Science, Bangalore 560012 (email: sdiwan@iisc.ac.in), with a copy of their CV and the contact details of at least 3 referees. The advertisement will be open until a suitable candidate is found.