

Postdoctoral Position at Carleton University in Aerodynamic Optimization of Gas-Turbine-Engine Components using Experimental and Computational Techniques

Position Description

The postdoctoral fellow (PDF) hired into the available position will participate in research and development activities related to aerodynamic optimization of modern gas-turbine engine components on the hot end of the engine.

The PDF will be supervised by Prof. Metin I. Yaras in the Department of Mechanical and Aerospace Engineering at Carleton University while splitting their time between undertaking work in the relevant labs at Carleton University and in the engineering design offices of the industrial partner involved in this research and development project. The industrial partner is located near Montreal. This arrangement will promote timely communication of the work activities to the industrial partner, and continual refinement of the analysis and interpretation of the research results to best cater to the priorities of the industrial partner.

The type of work activities will include post-processing, analysis and interpretation of experimental and computational (CFD) data; documentation of such work; and, to a lesser extent, participating in setting up and undertaking experiments, and developing CFD models and conducting simulations on the basis of such models.

The earliest start date of this position is January 2023.

Required Qualifications

- PhD in engineering with a thesis topic related to fluid dynamics
- A commendable track record of high-quality peer-reviewed journal publications
- Graduation with a PhD degree within the last 3 (three) years
- Expertise in experimental techniques in fluid-dynamics research
- Expertise in computational techniques in fluid-dynamics research
- Strong oral and written communication skills in English
- Strong organizational and time-management skills
- Strong problem solving and analytical skills
- Ability to work independently and adaptability to work under the supervision of the principal investigator, with flexibility and willingness to learn new problem-solving techniques as a self-starter

The position is open to citizens and permanent residents of Canada only.

How to Apply

Those wishing to be considered for this PDF position should submit via e-mail the following documents to Prof. Metin I. Yaras (metin.yaras@carleton.ca).

- Cover Letter (max. 2 pages)
- Curriculum Vitae
- Two Writing Samples (e.g. sample papers)