



Canada's Capital University

MASc position on design and characterization of a Jet engine soot generator with Flame Spray Pyrolysis (FSP)

The Energy and Particle Technology Laboratory (EPTL) at Carleton University, Ottawa, Canada is accepting applicants for a MASc position on design and characterization of a Jet engine soot generator with Flame Spray Pyrolysis. The successful applicant will build a setup to sample and characterize soot particles synthesized from jet fuel combustion in a FSP burner. This project is in collaboration with National Research Council of Canada. This is a fully funded position for up to two years conditional to the performance of the candidate starting from September 1st, 2020.

Candidate qualifications

Candidates must have completed a bachelor degree in Mechanical or aerospace engineering or in a closely related field. The candidate should have demonstrated experience in the following areas:

- Demonstrated experience with the design, fabrication and assembly of mechanical parts using commercial software SolidWorks, CATIA, and/or AutoCAD
- Experience from the construction of experimental equipment and related infrastructure
- work independently, self-motivated, with a strong work ethic and collaborative skills
- Applicants must be proficient in both written and oral English and possess excellent communication and interpersonal skills.

Energy and Particle Technology Laboratory

EPTL conducts research on nanoparticle engineering with applications in energy storage, advanced material synthesis, emission sensing and quantification of their impact on the environment. We develop process design tools for scalable gas phase synthesis of nanoparticles with tailored functional properties and study how particle characteristics including their size distribution, morphology and chemical composition are linked to their properties of interest such as optical, sensing and energy storage characteristics.

How to Apply

Applications should include a CV and a cover letter clearly outlining how past research and experience provide the essential qualifications to undertake the project. Additionally, contact info for three references should be available upon request. Please Direct Application to: Professor Reza Kholghy (Director of EPTL): reza.kholghy@carleton.ca