



## **The Combustion Institute**

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## **Assistant Associate Professor, CRC Tier-2, Combustion Emissions Quantification and Reduction**

The Department of Mechanical and Aerospace Engineering invites applications for a Tier-2 Canada Research Chair tenure-track position at the Assistant or Associate Professor level. The successful candidate will have research strength in one or more areas closely aligned with the goals of quantifying and reducing greenhouse gas and other emissions from the energy sector. The target start date is July 1, 2018. Applications will be accepted until the position is filled. The selected candidate's appointment will be conditional upon the candidate preparing and submitting an application for a Tier-2 Canada Research Chair.

The successful candidate will have research expertise strongly aligned with the objectives of environmental sustainability through emissions quantification and reduction, pollutant source identification and attribution, greenhouse gas (GHG) mitigation strategies, or novel combustion technologies. Examples of research areas of interest include novel technologies for monitoring and quantifying GHG and pollutant emissions sources, development and application source attribution techniques, GHG and pollutant mitigation technologies, alternative fuel combustion, advanced combustion systems, and combustion modelling and analysis to inform and support effective regulatory policies, or a closely related field. The candidate will be expected to have the necessary vision and capabilities to lead interdisciplinary, multi-institution, and industrially-supported research projects.

### **About the Academic Unit**

At the Bachelor's level, the Department offers degrees in Mechanical, Aerospace, Biomedical, and Sustainable and Renewable Energy Engineering. There is a Master's degree in Materials, as well as both Ph.D. and M.A.Sc. degrees in either Mechanical or Aerospace Engineering.

The Department currently comprises over 35 faculty members, with research across all core areas of mechanical and aerospace engineering. Of specific interest is substantial strength in all areas of fluid mechanics and thermodynamics, including experimental and computational fluid dynamics, aerodynamics, fluidstructure interactions, and combustion. The department is the lead institutional partner to the NSERC FlareNet strategic network grant ([www.flarenet.ca](http://www.flarenet.ca)), and it is likely that the FlareNet infrastructure and personnel would find close synergies with the advertised position.

There are excellent external opportunities for research collaboration with industry, government institutes and laboratories.

## Requirements

Tier-2 Chairs are intended for exceptional emerging scholars (i.e., candidate must have been an active researcher in their field for fewer than 10 years at the time of nomination). Applicants who are more than 10 years from their highest degree (and where career breaks exist, including maternity leave, extended sick leave, clinical training, etc.) may have their eligibility for a Tier-2 Canada Research Chair assessed through the program's Tier-2 justification process. Please visit <http://www.chairs-chaire.gc.ca/> for complete program details.

The successful candidate must have a Ph.D. in Mechanical engineering or a related field, and a commitment to teaching, research and the engineering profession. The successful candidate will be expected to be an effective undergraduate and graduate teacher. He or she must have the potential to attract, develop and retain excellent trainees, students and future researchers, and to lead independent research programs yielding high-quality peer-reviewed publications. Membership in a Canadian professional engineering association is required within two years of appointment.

## How to Apply

Please send your application including a curriculum vitae, the names of three referees, and statements on your teaching and research interests electronically in one single PDF file to the MAE Hiring Committee, Email:

[Hiring.MAE@carleton.ca](mailto:Hiring.MAE@carleton.ca)

Please indicate if you are a Canadian citizen or permanent resident.

As a part of your application, we invite you to complete a short anonymous and voluntary equity census to help us understand the diversity of applicants and further develop our equity program <https://oirp-secure.carleton.ca:443/opinio/s?s=6531>

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