Post Doctoral Research Fellow in Unmanned Aerial Systems Design

The Energy and Emissions Research Lab (EERL) at Carleton University, Ottawa, Canada is accepting applications for a Post Doctoral Research Fellow with experience in Unmanned Aerial Vehicle (UAV) system design. The successful applicant will work with our team developing fixed-wind and roto-craft airborne methane measurement platforms. The ultimate objectives of this project are quantification and mitigation of methane emissions in the upstream oil and gas sector. The position is open immediately (Sept. 1st, 2019) with funding secured for an initial two-year appointment.

Candidate Qualifications:

Candidates must have completed a Ph.D. degree in Mechanical, Aerospace, or Electrical Engineering, or in a closely related field. The candidate should have direct research experience and skills in the following areas:

- UAV-based measurements with an emphasis on hardware integration
- Data acquisition systems, communication systems, electronics
- System design, component integration, programming, and assembly
- Experience with manual and automated piloting of UAV systems

Experience obtaining flight approvals would be an added asset.

The successful applicant will collaborate closely and conduct research with personnel at all levels within the Energy & Emissions Research Lab and will have the opportunity to support a wide range of exciting projects. Additionally, the Fellow is expected to assist with conference and journal publications and reports. Excellent written and oral communication skills are essential to the position.

Position and Salary Conditions:

The Research Fellow is a full-time position based at Carleton University in Ottawa, ON, Canada. The initial appointment will be for up to two years with funding ranging from $65,000 – 85,000 plus benefits, commensurate with qualifications and experience of the applicant.

Energy & Emissions Research Lab (EERL):

EERL (carleton.ca/eerl) conducts interdisciplinary lab-based and field-measurement research on pollution quantification and mitigation in the upstream energy sector. This includes large-scale flare emissions experiments, black carbon measurement systems, development of novel optical diagnostics, greenhouse gas (GHG) inventory development and analysis, techno-economic mitigation analysis, and regulatory support to drive upstream oil and gas policy. Specific research contributions include development of the optical technology known as sky-LOSA for measuring black carbon in plumes, aircraft and ground-based methane measurements in the oil and gas sector, parametric models for predicting efficiency of flares in crossflow, novel approaches for detecting and quantifying fugitive emissions sources, techno-economic analysis of GHG mitigation potential via flaring and venting mitigation, and scientific rationale for regulatory decisions.

Applications:

Applications should include a CV, publication history, 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 Matthew Johnson (Director of EERL)
c/o Brigid Bedard-Hinz
Brigid.Bedard@carleton.ca

Applications will be accepted until the position is filled. The Energy and Emissions Research Lab (EERL) is committed to employment equity and diversity in the workplace and strongly encourages all qualified women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity to apply.