Job Title	Post-Doctoral Fellow Position in Multiphase Flow
Department	Mechanical Engineering

University Description

The internationally top-ranked Khalifa University (KU) is the one university in the UAE with the research and academic programs that address the entire range of strategic, scientific and industrial challenges facing the UAE's knowledge economy transformation and our rapidly evolving world.
Its world-class faculty and state-of-the-art research facilities provide an unparalleled learning experience to students from the UAE and around the world. The university brings together the best in science, engineering and medicine in the UAE, to offer specialized degrees that can take promising high school graduates all the way to top-rated doctorate degree holders. https://www.ku.ac.ae/

Brief Posting Description

The Mechanical Engineering Department at Khalifa University in Abu Dhabi, United Arab Emirates, is inviting applications for one full-time Post-Doctoral Fellow position for a limited period of three years, in the area of multiphase flow with strong background in flow visualization techniques. The project will involve study of atomization of liquid synthetic fuels that can be produced from CO_2 and H_2 using renewable energy. The main objective is to quantify the correlation between liquid properties and atomization and evaporation in order to provide specification guidelines for the introduction of new sustainable fuels into current powertrains. This is envisioned as a technology that will enable incorporation of gas turbines and reciprocating engines in a zero-carbon-trace power generation scenario as a means to tackle the intermittency of renewables.

Detailed Description

Under the supervision of the KU lead researchers (Prof. Dimitrios Kyritsis and Dr. Afshin Goharzadeh) the postdoctoral fellow will design, organize and conduct highly specialized and advanced experiments using established scientific protocols and procedures and in some cases designing new protocols; summarize findings and publish results in research journals; assume general responsibility for scientific operations of the laboratory; provide supervision and guidance to lab engineers, students, and researchers.

Job Requirements

- A PhD degree in Mechanical Engineering or related disciplines from a recognized university
- Strong oral and written communication skills in English
- Solid experience with laser based flow visualization systems including LDA/PDPA and/or PIV
- Experience with multiphase flows particularly liquid atomization experiments is strongly preferred
- Experience with Matlab, Labview, Solidworks and/or Fluent are added advantages
- Strong interpersonal skills and ability to liaise with management, co-workers, and students

Additional Details

Salary/Benefits: Salary and benefits will be commensurate with qualifications and experience. The total compensation package includes a tax-free 12-month base salary, and a benefits allowance that covers relocation, housing, health insurance, end-of-service benefit and annual leave travel. Applicants must be in excellent health and will be required to pass a pre-employment physical examination.

How to Apply

Interested candidates should submit a letter of interest and a detailed resume listing qualifications and experience to Dr. Afshin Goharzadeh (afshin.goharzadeh@ku.ac.ae). Review of resume will start in April 1st and the position is open until filled. Only shortlisted applicants will be notified

Physical Demands	**Work Environment**
Minimal	Normal office/laboratory environment