



# Fully funded PhD Opportunity

School of Mechanical and Materials Engineering

**Deadline: Until the right candidate is found**

**Target start-date:** September 2024

**Research Area:** Computational Fluid Dynamics

Dr. Muhammad Sajid's research group invites applications from highly motivated students to conduct research in the broad areas of 'Computational Fluid Dynamics and applied machine learning'. Support is available for one PhD student for four up to four years, starting in fall 2024/spring 2025. The base annual stipend is €22,000.00, with the option to complement this stipend via teaching assistant responsibilities at UCD Belfield, Dublin, Ireland and/or UCD CDIC in Xi'an China.

## Responsibilities

- Conducting interdisciplinary research both independently and as part of a global team
- Publishing research findings and presenting at conferences
- Assisting with teaching and mentoring undergraduate students

## Qualifications

- Bachelor's and/or Master's degree in engineering (Mechanical, Industrial, Chemical) or a field related to fluid mechanics
- Strong educational background in math, physics, and mechanics
- Proficiency in programming (e.g., Matlab, Python, and C/C++)
- Excellent written and oral communication skills
- Motivation and commitment to conducting high-quality research

## About the PI

Dr. Muhammad Sajid has recently joined University College Dublin, he received a B.Eng. degree from the National University of Sciences and Technology (NUST), a Master's degree from the École Nationale Supérieure d'Arts et Métiers (ENSAM) Paris Tech, and a PhD degree from the University of Cergy Pontoise. He completed postdoctoral research at Texas A&M University and worked with the National University of Sciences and Technology (NUST), where he was the Principal Investigator of Artificial Intelligence for Mechanical Systems (AIMS) laboratory. His current focus of research is towards

integration of Machine Learning and Artificial Intelligence with mechanical engineering problems by exploiting cloud-based infrastructure for high performance computing, leading to applications in external aerodynamics, heat exchanger design, as well as time series problems in estimation of solar & wind energy potential in urban environment in order to achieve near-zero energy buildings. Additionally, he has also worked with Internet of Things (IoT) based sensor arrays for real time data analytics in Heating Ventilation and Air-conditioning (HVAC) and indoor air quality monitoring.

### **About the University**

Ireland's largest university, University College Dublin ([www.ucd.ie](http://www.ucd.ie)), is ranked within the top 1% of higher education institutions worldwide. The university is located on a 330-acre parkland campus in the south Dublin suburbs (with three lakes!). Dublin itself is a lively European capital renowned for its nightlife and bustling technology industry.

### **How to apply**



- To apply, please **register your interest** by scanning the QR code on the left or by clicking on following link and completing the contact information <http://krg1j1ztexbpixzt.mikecrm.com/laNt42y>
- Applications will be monitored weekly and qualified candidates will be invited to submit a complete application via online link.
- Shortlisted candidates will then be invited to take part in an interview (e.g. via Zoom or in person where possible).

The successful applicant can start in September 2024 and the team will wait for particularly passionate well-suited candidates. Informal enquiries should be directed to [muhammad.sajid@ucd.ie](mailto:muhammad.sajid@ucd.ie). [<https://scholar.google.com/citations?user=m4T78foAAAAJ>]

Please note that applications via email or social media will be ignored.

### **Timeline**

- Expression of Interest open from **Wednesday, 15th May 2024**
- Invitations to submit complete application starts 25th May 2024
- Interview(s) commence **Monday, 3rd June 2024**