PhD Studentship in Tribology: developing fuels and lubricants that provide low friction

Applications are invited for a research studentship in the field of Tribology, leading to the award of a PhD degree. The post is supported by a bursary and fees (at the UK/EU student rate only) and is fully sponsored by Shell. The studentship is for three and a half years from September 2018.

It is of paramount importance to develop fuels and lubricants that provide low friction, to improve machine efficiency and thus reduce greenhouse gas emissions. However, strategies to reduce friction must not lead to any increase in wear. The proposed research programme will involve fundamental studies of the influence of key lubricant components (base oils and additives) on friction and wear in key engineering components.

The PhD project is sponsored by the Shell University Technology Centre (UTC) for Fuels and Lubricants based in the Mechanical Engineering Department of Imperial College, and will take place under the supervision of the Tribology Group academics. The Tribology Group has an international reputation for research excellence and comprises more than 30 PhD students as well as many post-doctoral researchers and academic staff. It offers a vibrant and multicultural working environment. It has well equipped, recently refurbished laboratories with an extensive range of advanced testing, measurement and analytical equipment as well as extensive computer facilities.

You will be an enthusiastic and self-motivated person who meets the academic requirements for enrolment for the PhD degree at Imperial College London. You will have a background in Chemical or Mechanical Engineering, Materials, Chemistry, Physics or a related field, and an enquiring and rigorous approach to research, together with a strong intellect and disciplined work habits. Good team-working, observational and communication skills are essential. Training will be given in tribology, and the relevant investigative techniques. The project will involve close collaboration with Shell and you will be expected to visit and communicate with various Shell centres around the world.

For further details of the post please contact Dr. Neal Morgan (n.morgan@shell.com), Prof. Hugh Spikes (h.spikes@imperial.ac.uk) or Prof. Daniele Dini (d.dini@imperial.ac.uk). Interested applicants should email an up-to-date curriculum vitae. Suitable candidates will be required to complete an electronic application form available on the Imperial College London website in order for their qualifications to be assessed by the College Registry.

Closing date: 18 February 2018

Imperial Managers lead by example.

Committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Two Ticks Employer, and are working in partnership with GIRES to promote respect for trans people.