PhD Studentship in Metal Forming and Materials Modelling

Applications are invited for a research studentship in the field of Metal Forming and Materials Modelling, leading to the award of a PhD degree. The post is supported by a bursary and fees (at the UK/EU student rate) provided by the sponsors in the aviation, aerospace and railway industries.

A number of PhD positions are available for UK and EU nationals. The research involves development of advanced metal forming and modelling techniques, and will be carried out at the Metal Forming and Materials Modelling Group. The research activities of the group cover a wide range of areas from theoretical and computational solid mechanics to experimental materials research. These research works involve a wide range of industries, including aerospace, aeronautical, automotive and locomotive.

There are two main research themes within the group: Metal Forming Technologies and Materials Modelling. The Metal Forming research focuses on the development of advanced forming processes e.g. manufacturing lightweight structural materials into high-strength and complex shaped engineering components and cloud based FEA (Contact Dr. L. Wang at liliang.wang@imperial.ac.uk to make enquires). The Materials Modelling tackles the fundamental challenges in materials behaviour at microscopic scale e.g. the distribution and evolution of microstructure and defects as functions of loading, temperature and loading rate, and link them with the macroscopic mechanical responses e.g. formability and damage tolerance (Contact Dr. J. Jiang at jun.jiang@imperial.ac.uk to make enquires).

Over the past decade, the group has successfully developed several world-leading forming technologies and novel materials modelling methods. These techniques have been directly implemented in automotive and aerospace industries. Three research centres and one joint lab have been established. The group is currently led by several world-leading experts in material forming, including Prof. Jianguo Lin, FREng, Dr. Liliang Wang, Dr. Daniel Balint and Dr. Jun Jiang, and has secured over £15 M funding from industries, UK and EU research councils. Over 60 research staff and students are supported through them. To view a current list of projects please visit our website http://www.imperial.ac.uk/metal-forming/.

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 1st class honours degree (or equivalent) and/or a distinction MSc degree (if applicable) in engineering or a related subject, and have 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.

To find out more about research at Imperial College London in this area, go to: http://www3.imperial.ac.uk/mechanicalengineering

For information on how to apply, go to: http://www.imperial.ac.uk/mechanical-engineering/study/phd/how-to-apply/

For further details of the post contact Dr Xiaoyu Xi at x.xi@imperial.ac.uk, +44 (0)20 7594 9546. Interested applicants should send an up-to-date curriculum vitae to Dr Xiaoyu Xi. Suitable candidates will be required to complete an electronic application form at Imperial College London in order for their qualifications to be addressed by College Registry.

Closing date: until post filled

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