**Imperial College London**

**Department of Mechanical Engineering**

**PhD Studentships in Additive Manufacturing – Experimental and Modelling**

Applications are invited for research studentships in the field of additive manufacturing leading to the award of a PhD degree. The posts are supported by bursary and fees (at the UK/EU student rate). Positions are available for immediate start.

Additive manufacturing (AM) technologies have a promising list of potential benefits for low to medium volume manufacture. Understanding the structural integrity of AM components is key to their increased use in high performance and safety critical applications. This project will focus on Selective Laser Melting of metals (initially stainless steels) and the relationships between manufacturing process variables, microstructure and final mechanical properties. The findings from this research will be embedded into predictive process modelling tools to allow optimisation of process parameters for improved mechanical properties. The research will be performed using Imperial’s new AM facility (that includes two selective laser melting machines, Renishaw AM250 and Concept MLab), world class materials characterisation and test facilities and high performance computing systems.

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 first or upper second honours degree in engineering or a related subject, and an enquiring and rigorous approach to research together with a strong intellect and disciplined work habits. Applicants should have an interest in one or more of numerical methods, finite element analysis, laser welding, solidification, residual stress, metal alloys and design for additive manufacturing. Only UK and EU citizens are eligible. A passion for engineering, demonstrated by extra-curricular activities or industrial experience is also desirable. Good team-working, observational and communication skills are essential.

For information on how to apply, go to:

<http://www3.imperial.ac.uk/mechanicalengineering/research/phdopportunities/>.

For further details of the post contact Dr Paul Hooper (paul.hooper@imperial.ac.uk) or Dr Catrin Davies (catrin.davies@imperial.ac.uk). Interested applicants should send an up-to-date curriculum vitae and cover letter to Dr Hooper on the above e-mail address. 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.*](http://www3.imperial.ac.uk/hr/procedures/support/opportunities/expectations)

*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*