Applications are invited for a research studentship in the field of dynamic response in composite blades, 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 an iCase award, which is co-funded by EPSRC and Rolls-Royce plc. You must be a UK or EU candidate meeting the Research Council criterion of having been resident in the UK for the previous 3 years. Please check your suitability at the following web site:

https://www.epsrc.ac.uk/skills/students/help/eligibility/

Modern gas turbine blades are now being built more often from composite materials, taking advantage of reduced weight and better life, but introducing a series of challenges with regards to understanding their behaviour during operation. A major problem is the prediction of the dynamic response of such blades, since the composite material can behave very differently from traditional metal designs.

The aim of this research project is to develop an understanding of the dynamic response of composite blades, with a particular focus on the damping behaviour. The objective of the research is to provide a detailed understanding of the mechanisms that drive the behaviour, characterise typical damping performance, and introduce numerical techniques to predict such behaviour correctly. A mixed experimental and analytic approach will be used to achieve these objectives.

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 Mechanical or Aeronautical Engineering, Physics, Applied Mathematics or a related field. You have an enquiring and rigorous approach to research, together with a strong intellect and disciplined work habits. You must have a strong interest in Dynamics and Vibration. Good team-working and communication skills are essential.

To find out more about research at Imperial College London in this area, go to:

http://www.imperial.ac.uk/mechanical-engineering

For information on how to apply, go to:

http://www.imperial.ac.uk/mechanical-engineering/study/phd/phd-opportunities/

For further details of the post contact Dr C. Schwingshackl c.schwingshackl@ic.ac.uk. Interested applicants should send an up-to-date curriculum vitae to Dr Schwingshackl. Suitable eligible 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 position is 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