

PhD positions to work on projects in composites manufacturing

Applications are invited for two PhD positions to work on projects in composites manufacturing. Successful candidates will join the University of Nottingham's Composites Research Group which leads the EPSRC Future Composites Manufacturing Research Hub, a £10.3m investment in fundamental research that aims to deliver a step change in the production of polymer matrix composites. More information on the Hub can be found at www.cimcomp.ac.uk

Project details:

As part of a larger research programme focusing on control of composites manufacturing processes and product quality optimisation, one PhD candidate will work on the implementation of novel numerical process control algorithms. The other PhD candidate will focus on experimental work and implementation of new methods in a lab environment.

The modelling part of the project will focus on:

- Development of complex process models
- Development of algorithms for process monitoring
- Optimisation of lay-out of process control system

The experimental part of the project will focus on:

- Developing a demonstrator component in collaboration with industrial partners
- Developing sensors technologies for monitoring of process parameters
- Implementing process control strategies.

Funding:

The studentship offers a tax-free bursary of up to £19,000 p.a. (equivalent to £23,000 gross p.a.) and covers full tuition fees, subject to a satisfactory research progress. This funding is for UK and EU applicants only. Candidates should be available to start on 1st October or 1st December 2019.

Eligibility/entry requirements:

We require an enthusiastic graduate with a 1st class degree in a relevant discipline, such as engineering, material science or physics (in exceptional circumstances a 2:1 class degree, or equivalent, can be considered). Candidates are expected to have experience in composites manufacturing or have excellent experimental or numerical modelling skills.

Successful applicants will be based at Nottingham and will:

- Work directly with leading academics and industrial partners from the composites supply chain, including leading UK aerospace and automotive companies, offering excellent career opportunities following graduation
- Have the opportunity to undertake a 3 month secondment with an industrial partner or one of the supporting High Value Manufacturing Catapult centres

OR

- Have the opportunity to spend up to 3 months visiting one of 23 international research institutions, via the International Researcher Network
- Have access to industry-relevant taught modules delivered by the Industrial Doctorate Centre (IDC) in Composites Manufacture at the University of Bristol
- Receive a travel and consumable allowance to support the research project
- Have access to world-leading facilities and a composites laboratory

How to apply:

To apply for a research studentship, please contact:

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Dr Mikhail Matveev Mikhail.Matveev@nottingham.ac.uk or

Prof. Michael Tretyakov Michael.Tretyakov@nottingham.ac.uk (School of Mathematical Sciences).