

PhD Studentship – Ultra Precision fabrication of Astronomy Optics – Grinding techniques

Supervisor:

Professor David Stephenson, Professor Paul Shore & Xavier Tonnellier

Duration of award:

Three years

Award type:

PhD

Supported by the EPSRC and the McKeown Foundation for Precision Engineering and Nanotechnology, a studentship of up to £17,500 p.a. for 3 years plus fees* is available.

Cranfield University is world-renowned for its research in ultra precision technologies, and is involved in the design and development of novel machine tools which operate at nanometre levels of accuracy. Cranfield University manages the UK's Integrated Knowledge Centre in Ultra Precision and Structured Surfaces (UPS2). UPS2 is recognised as the leading Centre of Excellence for the development of value adding surface technologies, components and high value products and has unique capabilities for the fabrication of ultra precision large optics.

We are seeking a highly motivated graduate to join the team and undertake a research project on the fabrication of astronomy optics using abrasive processes, especially the fabrication of extra large ground-based telescope mirrors using advanced CNC grinding processes. The research will support a programme of work that will enable the rapid production of large mirror segments to be employed within the next generation of extra large telescopes (eg EELT, TMT)

Entry requirements

Applicants should have a first or uppersecond class UK honours degree, or equivalent in a relevant discipline such as materials science, chemistry, physics, or related and have a background in engineering or experimental sciences.

Funding

* Supported by an EPSRC bursary and McKeown Foundation for Precision Engineering and Nanotechnology funding, this studentship will cover the tuition fees at the UK/EU rate only and provide a bursary of up to £17,500 p.a. for three years dependent upon qualifications and experience. To be eligible for funding applicants must demonstrate a relevant connection with the UK, usually through being ordinarily resident for a period of 3 years immediately prior to the date of application for the award. However, nationals of other member states of the European Union are eligible for fees-only awards if they are resident in their own country in the same way that other candidates are required to be resident in the UK. Eligibility details are available at: www.epsrc.ac.uk/student .

How to apply

Please submit a CV and complete the application form at:
www.cranfield.ac.uk/prospectus/app/pgappform.pdf

Alternatively, for more information and an application form please contact:

Professor Paul Shore, School of Applied Sciences

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