The University of Manchester

Academic School:
School of Electrical and Electronic Engineering

Project title:
Doctorate Industrial CASE Award
Non-destructive testing of the graphite core within an advanced gas cooled reactor

Duration:
3.5 years

Anticipated start date for project:
July or September 2016 entry

Closing date for applications:
Open

Information about the project (about 250 words):
This split university / industrial PhD project offers an exciting opportunity to pursue advanced research in partnership EDF Energy and the University of Manchester. The aim of the project is to advance the state of the art in graphite core inspection techniques and to help EDF Energy to deploy the best possible non-destructive testing (NDT) techniques for inspection of graphite moderator bricks within the UK’s fleet of advanced gas cooled reactors (AGRs). A particular focus of the research may be advanced signal and data processing methods using multi-frequency electromagnetic inspection. The successful candidate will join an established team of scientists working in this area, which a successful track record of research and technology transfer.

Qualifications applicants should have/expected to receive:
Candidates must be UK or EU citizens (EU residents must have been resident in the UK for 3 years) and have a 1st or 2i in a relevant Engineering subject, such as materials, modelling, signal processing and electronics, or Physics or Mathematics. The ideal candidate will also have a strong interest in problem solving with a proven practical ability and be able to work in a multidisciplinary team with physicists, material scientists, application engineers, business managers and end-users.

Funding:
The award will cover tuition fees at the UK / EU rate. There is also a starting stipend including enhancement of at least £20,000 (tax free) p.a. In addition, the company supports the necessary travel and consumable costs associated with the project.

Contact for further information:
Prof. Tony Peyton, a.peyton@manchester.ac.uk or 0161 306 8716.

How to Apply:
In the first instance, please send a CV and 1 page accompanying statement to Mrs Marie Davies, Postgraduate (Research) Admissions, email M.B.Davies@manchester.ac.uk quoting the project reference number CASE/EDF/UM/1603.