Job Posting - PhD position


Recruiting organisation: University of Bristol, United Kingdom

PhD-project title: “Fibre-reinforced polymer composites with an optimised discrete self-healing function (36 months) – ESR7”

Starting date: 1st January 2013

The Advanced Composites Centre for Innovation and Science (ACCIS) is one of the world's foremost academic teams in the area of composite materials, based in outstanding new laboratories and office space. Within ACCIS there are over 80 people working on composites, with thirteen members of academic staff and current research funding in the region of £18M. For further details, please visit: www.bristol.ac.uk/composites.

The School of Chemistry at the University of Bristol, is one of the UK’s largest and most prestigious chemistry departments. There are currently 60 members of academic staff and around 160 researchers. The School of Chemistry has strength in all areas of inorganic and materials, organic and biological and physical and theoretical chemistry. Annual grant income for the School of Chemistry currently exceeds £11M. For further details, please visit: www.chm.bris.ac.uk

Applications are invited for a Marie-Curie Fellow position to work on a project jointly hosted by the Advanced Composites Centre for Innovation and Science (ACCIS) and the School of Chemistry, both at the University of Bristol. The project concerns the investigation and development of innovative chemistries to act as extrinsic self-healing agents and/or provide an intrinsic healing capability to a structural fibre reinforced polymeric material.

The primary tasks will include:
• Develop the underpinning chemistries and synthesis techniques for extrinsic self-healing agents and intrinsic healing function in a polymer
• Incorporate such self-healing functions into a representative polymer matrix e.g. epoxy
• Laboratory scale demonstration of self-healing capabilities in a FRP subject to a variety of damage and/or degradation events.

Collaborations with the University of Freiburg, Germany, (investigating self-repair of plants as role model for FRPs) and EPFL, Switzerland (investigating development of self-healing elastomer matrix composites) are planned. Furthermore, a comprehensive programme of multidisciplinary training forms a key part of being a Marie-Curie Fellow.

The successful candidate must meet the eligibility requirements below, as well as possessing a good Master’s level degree in chemistry or materials science, and evidence of an interest in polymer chemistry. Experience or an interest in polymer synthesis, catalysis, microencapsulation or physical and mechanical testing and characterisation of materials would be an advantage, as well as an interest in the field of self-healing materials. This project offers an exciting opportunity to be involved in the development of potentially ground-breaking technologies. Furthermore applicants should ideally offer the following:

  o Fluency in English, both written and verbal.
  o Evidence of outstanding academic performance (preferably within best 10% of cohort)
  o Experience of and interest in interdisciplinary research
- A motivation letter (describing how the project and the ITN will benefit from your experience and scientific background - 400 words maximum).
- Flexibility to move freely within the EU throughout the project duration
- Contact details of at least two persons that can provide independent references

The PhD project duration is for 3 years.

Please note there are specific eligibility conditions for EU Marie Curie projects (see below).

In the first instance, applicants should send a cover letter, CV and motivation letter to:

Professor Ian Bond  
University of Bristol  
Advanced Composites Centre for Innovation and Science  
Queen's Building  
University Walk  
Bristol. BS8 1TR.  
United Kingdom.  
I.P.Bond@bristol.ac.uk

**Application deadline**: 31st August 2012

**Eligibility Conditions**

- Research experience must not exceed 4 years and applicants must not yet have acquired a PhD degree
- The candidate must not have spent more than 12 months during the last 3 years in the country of the organisation for which he/she would like to be recruited; he/she must not be of the same nationality as that of the recruiting organisation
- Researchers must not be a national of the country of their host institution
- The final choice of candidates will be made on a competitive basis (based on the application and on an interview if pre-selected)
- Applications from researchers of any nationality are welcome, providing they meet the above criteria.