PHD STUDIES (RESEARCH ASSISTANT): CARBON REINFORCED THERMOPLASTIC TEXTILE COMPOSITES

KATHOLIEKE UNIVERSITEIT LEUVEN

Position opens: 01.09.2006. Project duration 4 years.

Project description: Carbon reinforced thermoplastic textile composites

The project aims on the development of novel carbon-reinforced thermoplastic composites with improved mechanical (static, impact, fatigue) properties, primarily for transport applications, and using textile reinforced sheets in a compression moulding process. The project is part of MOMENTUM Marie-Curie network, funded by EC:

http://ica.cordis.lu/search/index.cfm?fuseaction=proj.simpledocument&PJ_RCN=8088298&CFID=7626027&CFTOKEN=69052866

Position description

PhD studies at K.U.Leuven, combined with Research Assistant position at Department MTM, K.U.Leuven, in the Composite Materials Group http://www.mtm.kuleuven.be/Research/C2/poly/index.htm.

The project offers full funding of a 4-year PhD program.

NB: Because of formal conditions of the funding"

1. There is NO possibility hiring a post-doc.
2. Position is NOT available for Belgians
3. Candidates from EU (apart from Belgium) and Assosiated countries will have preference among the candidates of equal ranking.

Supervisors at K.U.Leuven

Prof Ignaas Verpoest, Prof Stepan Lomov

Collaboration

Partners in the MOMENTUM network

Requirements

1. *Master degree* (in order of preference) in
   - Composites materials
   - Materials engineering (including courses on composite materials)
   - Mechanical engineering (including courses on composite materials)
2. *Research experience*
   - Master thesis work involving development of a composite material/part, study of mechanical (static, impact, fatigue) properties
   - Candidate having publications (also submitted) and/or conference papers, will have an advantage
3. *Programming and software skills*
   - Knowledge of finite element packages is desirable
4. *Communication skills*, ability to work in a team
5. *Language*: English

Job contents

– Development of new composite material (choice of constituents, choice of textile architecture, choice of production method)

– Mechanical testing of the material, including static, impact, fatigue testing of the coupons, formability testing

– Production of pilot parts

– Modelling of the material behaviour

CHECK-LIST FOR THE APPLICANTS

(information to accompany your CV)

√	I have a Master degree in one of the fields mentioned above	*Provide details*
√	I have done research work in composite materials field… … and have published/submitted for publication the results	*Provide details; give a synopsis of the research* *Provide bibliographic details*
√	I am familiar with mechanical testing … … moreover, I have practical experience with it	*How did you study it?* *Provide details: brief descriptions on the experimental programs carried by you*
√	I am familiar with FE packages … … and have practical experience in using FE	*How did you study them? Specify the packages* *Provide details: brief description of the solved problems*
√	I understand the project topic and it interests me	*Write one-page comment on the potential advantages of these carbon fibre reinforced thermoplastic composites, and on the properties important for different transport applications.*
√	I speak and write good English	*Do it in your application!*

CONTACT

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