

Marie Skłodowska-Curie ITN Early Stage Researcher Post in multi-scale modelling and optimization of aerospace composite structures

Salary £30,776-£38,671 in accordance with the EU Marie Skłodowska-Curie financial guidelines for this scheme

Applications are invited to work with Prof. Arthur Jones and the team of Airbus Defence and Space Germany GmbH as part of the H2020-funded Marie Skłodowska-Curie European Industrial Doctorate (EID) Network, "OptiMACS". Successful applicants will register for a PhD programme at the University of Nottingham.

Modern aeronautical structures are increasingly made of composite layered materials. The usage of composite structures however implies a radical increase of the structural design parameters that have to be determined and optimized for an aircraft during its design process. There is therefore a genuine industrial need for developing advanced computational schemes and optimization processes, able to reliably provide the optimal design of the composite structure under consideration.

The successful applicant is expected to build on advanced computational models to predict and to optimise the multidisciplinary (static, weight, dynamic etc.) performance of complex aerospace components. The PhD work will combine substantial theoretical and computational developments together with limited experimental tasks.

Candidates must be in possession of (or expected to obtain) a first class or equivalent degree in mechanical/aerospace engineering, applied mathematics/physics, or a relevant discipline and have a solid background in composite structures and/or computational modelling. Excellent written and verbal communication skills are also essential.

Candidates will also be required to meet the Marie Skłodowska-Curie Early Stage Researcher eligibility criteria:

(http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf). In particular, at the time of appointment candidates must have had less than four years full-time equivalent research experience and must not have already obtained a PhD. Additionally, they must not have resided in the (host country) UK for more than 12 months in the three years immediately before the appointment.

This full-time position is offered on a fixed-term 36 month contract. The post benefits from a highly competitive and attractive salary, plus mobility and family allowances as applicable. This is an excellent opportunity to work in an international and multisectoral research environment. Candidates will spend 18 months in Airbus Defence and Space and another 18 months at Nottingham University, a leading university in the domain of composites engineering. Intense mobility within, as well as outside Europe is envisaged throughout the duration of the project. The successful candidate will also benefit from a comprehensive training programme aiming at developing her/his technical skills, as well as softskills.

The candidate will be fully integrated in the Aircraft Optimization team of Airbus Defence and Space team. This is Europe's number one defence and space enterprise, the second largest space business worldwide and among the top ten global defence enterprises.

Informal enquiries should be addressed to Prof. Arthur Jones (Arthur.jones@nottingham.ac.uk), Dr. Fernass Daoud (fernass.daoud@airbus.com) and Dr Dimitrios Chronopoulos (Dimitrios.chronopoulos@nottingham.ac.uk). Formal applications must be made through the University's online application system.