

YADONG JIANG

Jayme Rios de Souza Rua Joaquim Kopke, 112, 4200-346 Porto, Portugal
Mobile: (+351) 910-275-177, E-mail: yadong.jiang@iusspavia.it

Dr Jamie Goggins
Civil Engineering
National University of Ireland, Galway
University Road
Galway, H91 TK33
Ireland

Dear Dr Goggins:

I am writing to apply for the MaREI-Blades postdoctoral researcher 1 position, which was announced on the NUIG website. As a PhD student majoring in Earthquake Engineering and Engineering Seismology at the University School for Advanced Studies IUSS Pavia, I have already passed the doctoral defence and my expected graduation date is May 2018.

As a candidate, here are what I could immediately bring to the table:

Programming Skills: I have developed solid programming skills in Python during my post-graduate training. All the data and scientific plots of my PhD research were processed by Python scripts. In the meantime, I had created many productive tools based on Python, e.g. the genetic algorithm optimization tool, the response spectrum analyser, the CFST column designer (based on Eurocode 4). Besides the Python skills, I had experiences of developing uniaxial material of OpenSees based on C++, which can be useful when the development of the composite material model is required. My programming skills prepare me to further develop and test your in-house design and testing tools, BladeComp.

Numerical Modelling Skills: In my PhD research, I had developed the micromechanical models in Finite Element (FE) software ABAQUS to simulate the flexural behaviour of Concrete-Filled Steel Tubes (CFST) under quasi-static/dynamic loading. Additionally, the ductile fracture of the steel tube was considered during the analysis. Moreover, I used the Python scripts to automate the parametric study procedures, namely the input file generation, the analysis control and the analytical data extraction. I believe my modelling skills enable me to propose an accurate FE model for the tidal rotor blades.

Experience of Research Findings Presentation and Research Papers Authoring: I have authored and co-authored 11 journal or conference papers during my PhD career. Meantime, I have presented my research achievements orally in 6 international conferences and workshops. These experiences fully prepare me for any future report delivery and article authoring.

I believe that my research background, skills and experiences well qualify me for the postdoctoral researcher 1 position. My curriculum vitae is enclosed for your kind perusal. Thank you for your consideration and I look forward to hearing from you soon.

Sincerely,
Yadong Jiang
PhD Candidate, Earthquake Engineering and Engineering Seismology
University School for Advanced Studies IUSS Pavia, Pavia, Italy
University of Pavia, Pavia, Italy