

Job title: Research assistant
Job type: Full-time
Category: Electrical/Electronic/Mechatronic Engineering

Job description

The ITB Magnetics and Machines group in Institute of Technology Blanchardstown (ITB) is currently advertising a **Research Assistant** position in the area of electrical generator design for renewable applications, particularly wind and wave. The Group is doing ground-breaking work in the design of novel electrical generator technologies.

ITB invites applications for an appointment as Research Assistant in electrical machines research, working on an exciting project to design, build and validate a novel electrical generator to suit the needs of several industrial developers in the marine renewables industry.

The applied research project will focus on the technical challenges associated with magnetic, mechanical and electrical design; build and assembly; test and validation; and development and validation of controller regimes. Every part of the work will rest on modelling and simulation, including hardware-in-the-loop (HiL) testing, using MATLAB/Simulink interfacing with a DAQ system such as dSPACE.

Responsibilities

Reporting to the Principal Investigator on the Project, the successful candidate will be responsible for

- Assisting in the design and construction of a programmable electrical generator test rig in the lab. This will be capable of exploring the performance of generators under test in simulated wild-speed conditions.
- assisting with day-to-day applied research: planning, designing, constructing and running electrical machines experiments
- Writing procedure documents and reports on designs and experiments
- Working with our industry supporters and partners to identify and characterise their needs

Requirements

- A Master's degree or equivalent in electrical/electronic/mechatronic engineering, or a cognate discipline, with 2 years' relevant experience in the area of electric machines and/or power electronics
- Experience of modelling in MATLAB/Simulink
- Report writing, documenting and communication skills, both written and oral, are essential
- An ability to work pro-actively, both individually and in a team

In addition, the ideal candidate will have the following key skills:

- Experience of applied research, driven by modelling and experimentation, in an electrical/electronic/mechatronic engineering setting
- Mechanical or mechatronic workshop skills would be an advantage

Salary: €30,502

Duration: 18 months. This is a fixed-term contract. There is no scope to extend the contract.

All applications should be sent to anne.greene@itb.ie and should include a C.V. and a cover letter by August 16th 2017. Interviews will take place on August 25th 2017. Any queries regarding the role please contact Dr. Garret Brady, garret.brady@itb.ie. (01) 885 1547 who is Principal Investigator on the project.