

Applications are invited for the following a PhD studentship for the following project:

Thermoelectric Power Generators: From Materials to Application

The position will be based with the Fluids & Heat Transfer Research Group of the Mechanical & Manufacturing Engineering Department of the School of Engineering within the Advanced Materials and Bioengineering Research Centre (AMBER) centre.

Summary of project

Thermoelectric power generation will be a key technology for a broad range of emerging technologies, spanning from wearable sensors to waste heat recovery. Research in material science has progressed such that new materials are emerging with properties that not only improve the efficiency of thermoelectric power generation, but also their method of manufacturing, such as 3D printing, which opens new opportunities for thermoelectric power generation in niche and established applications.

This project will focus on the thermal-electrical experimental characterization of Thermoelectric material, devices and systems. Novel experimental techniques and facilities are to be designed and commissioned for characterizing Thermoelectric material as well as Thermoelectric Generator devices and power generating systems. Beyond this, theoretical models will be developed for the performance prediction and engineering design of end-to-end Thermoelectric Generator systems. The project will aim towards the development of one or more commercially viable Thermoelectric technology demonstrators.

For more information please contact Prof Anthony Robinson (arobins@tcd.ie)

The ideal applicants will have a 1st Class Honours Bachelor's degree in *Mechanical Engineering or related field*. Previous experience Thermoelectricity and or thermal-fluid science would be advantageous but not essential.

How to apply:

CVs with the names and addresses of three referees should be submitted to:

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Positions will remain opened until filled but preferred start date is *September 2 2020*. Only short-listed applications will be acknowledged.

This position is funded by AMBER, SFI Research Centre for Advanced Materials and BioEngineering Research & CRANN Institute. The AMBER research centre, as a community of researchers, welcomes its responsibility to

provide equal opportunities for all. We are actively seeking diversity in our research teams and particularly encourage applications from underrepresented groups.