



Postdoctoral Researcher/Research Fellow in Signal Processing for Driver Monitoring
Electrical and Electronic Engineering
College of Engineering & Informatics
NUI Galway
Ref. No. NUIG 068-17

Applications are invited from suitably qualified candidates for a full-time, fixed term (18 month) position as a Postdoctoral Researcher/Research Fellow in Electrical & Electronic Engineering at NUI Galway.

The position is funded by a Horizon 2020 Research and Innovation project titled “ADAS&ME” (<http://www.adasandme.com>) which aims to develop and trial technology for managing the interface between humans and vehicles in the context of development of autonomous and semi-autonomous cars. The position is available from June 1st 2017.

The postholder will work on the development and prototyping of a radar-based sensor for non-contact monitoring of vehicle occupants. The radar sensor will be used as part of a larger system used to monitor the overall state of the person, e.g. fatigued, anxious, stressed etc.

The successful candidate will be based in the Electrical & Electronic Engineering discipline at NUI Galway, and will work as an integral part of an international consortium of around 30 organisations across Europe, including industry, academic, research institutes and user group partners.

Job Description: The postholder will be responsible for the specification and design of a radar-based system for driver monitoring, for working with an industry partner on prototyping and testing, and development of signal processing algorithms for the system. The successful candidate will also be expected to take responsibility for meeting appropriate milestones, timelines and deliverables as part of the overall ADAS&ME project.

Duties and Responsibilities:

- Carry out high-level design, simulation and characterisation of a microwave radar-based monitoring system;
- Develop signal processing algorithms for radar signals in driver monitoring applications;
- Support industry partner on system hardware design;
- Contribute to prototype development and system integration;
- Actively participate in international conferences and meetings as required;
- Publish in high-impact journals as appropriate;
- Participate in consortium meetings and workshops as appropriate, including travel to other countries within Europe;
- Provide project management support e.g. budgetary management and reporting;
- Provide support and mentoring to post-graduate research students in the host research group;
- Engage in appropriate continuing professional development activities to support their own career development plans, and to support the development of the host research group through e.g. development of research proposals.

Essential Requirements:

- An honours BE degree (or equivalent) in Electrical/Electronic/Computer Engineering, or Biomedical Engineering with a strong electronics background.
- A PhD, or equivalent experience** in a relevant research environment.
- Significant experience in the development of radar-based or other RF systems for non-contact monitoring applications, ideally in biomedical or related applications.
- Experience in development of signal processing algorithms and embedded software.
- Knowledge of Matlab or other signal processing development tools.
- Evidence of primary/senior authorship of peer-reviewed publications in relevant areas, or other equivalent output e.g. patents.
- Excellent written and spoken English communication skills.

** Minimum 4 years for appointment at Postdoctoral level, minimum 6 years for appointment at Research Fellow level

Desirable Skills:

- Experience of RF simulation/modelling.
- Expertise in issues relating to medical device regulation.

Salary: €42,394 to €46,255 per annum – Postdoctoral Researcher.

€51,716 per annum – Research Fellow.

Start Date: The position is available from 1st June 2017, and no later than 1st August 2017.

Continuing Professional Development/Training:

Researchers at NUI Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans.

Further information on research and working at NUI Galway is available on [Research at NUI Galway](#)

For information on moving to Ireland please see www.euraxess.ie

Informal enquiries concerning the post may be made to Dr Edward Jones (edward.jones@nuigalway.ie).

Applications: Candidates are requested to submit a cover letter, CV (Word or PDF format only) and the names and addresses of three referees via e-mail to Dr Edward Jones (edward.jones@nuigalway.ie)

*Please ensure to put the reference number **NUIG-068-17** in subject line of e-mail application.*

The closing date for receipt of applications is 5pm on 30th April 2017.

All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment.

National University of Ireland, Galway is an equal opportunity employer.

