



HR EXCELLENCE IN RESEARCH

**Research Fellow / Postdoctoral Researcher in
Machine Learning and Artificial Intelligence**

Machine Learning and Data Mining Research Group, Computer Science

National University of Ireland Galway

Ref. No. NUIG 008-18 (Application deadline extended to 1 Feb 2018)

Applications are invited from suitably qualified candidates for a full-time, fixed term position as an experienced Research Fellow / Postdoctoral Researcher with Prof. Michael Madden in the Data Mining & Machine Learning Group, at the National University of Ireland, Galway.

This position is funded by a European Union Horizon 2020 research project and is available from 1 March 2018 to contract end date of 31 July 2019.

The role will involve scientific research and combined with project management work on this exciting project (see below) in which our research group's scientific contributions include routing algorithms for autonomous robotics, deep learning for image analysis, classification algorithms for sensor data, and probabilistic reasoning for intelligent decision support.

The ROCSAFE Project (Remotely Operated CBRNe Scene Assessment & Forensic Examination) has been funded by the European Union's Horizon 2020 programme. Led by Prof. Michael Madden in NUI Galway, it aims to make advances in autonomous aerial and ground-based robotics, probabilistic reasoning, intelligent decision support, and miniaturised sensors, all of which will work together to gather forensic evidence in the event of a chemical, biological, radiation/nuclear or explosive (CBRNe) incident. ROCSAFE's overall goal is to fundamentally change how CBRNe events are assessed, and ensure the safety of crime scene investigators, by reducing the need for them to enter dangerous scenes to gather evidence.

There are 13 academic and industrial partners in total involved in the project across Ireland, Italy, Portugal, Spain and Germany, along with a further group of advisory board members. There is more information at <http://www.rocsafe.eu>.

Job Description:

The successful candidate will be involved in development of new algorithms for probabilistic reasoning over time, for routing and control of autonomous airborne and ground-based vehicles (including deep learning for image analysis to support routing and control), and for context-aware decision support driven by sensor data analytics. The person will be responsible for the specification, design, development, testing & evaluation of software implementing these algorithms. Other responsibilities will include preparing publications and reports, advising/ mentoring students, and travelling to meetings and conferences.

As part of the work, the successful candidate will be responsible for operational project management of the ROCSAFE project, which is coordinated by Prof. Michael Madden in NUI Galway. As well as playing a central role in monitoring and reporting activities, this person will contribute significantly to the scientific programme of the Data Mining and Machine Learning Research Group, and will liaise with funding bodies and collaborating partners. Working closely with Prof. Madden, the successful

candidate will also provide scientific input; assist in the supervision and mentoring of early stage researchers as required and in the dissemination of project results and outcomes.

This is an excellent opportunity to engage in R&D, working in a flexible and stimulating research environment, while collaborating with academic and industrial partners across Europe and gaining experience in project management and proposal-writing. There can also be opportunities for some part-time lecturing, to support the successful candidate's academic career development.

Duties:

- Provide scientific input into research programmes, including algorithm development and software development.
- Engage in supervision/co-supervision and mentoring of postgraduate students.
- Engage in project management activities related to the ROCSAFE project, including tracking of progress of the project against milestones agreed in the work programme, interacting with other project partners to follow their progress on their work, and preparation of reports.
- Work with academic and industry partners and attend meetings in Ireland and abroad.
- Participate in intellectual property management as required.
- Publish and present work.

Qualifications/Skills required:

Essential Requirements:

- A PhD in machine learning, artificial intelligence, and/or statistics.
- A minimum of 3 years' relevant postdoctoral research experience in industry or academia.
- A strong research track record in data mining/machine learning.
- Experience of project management with clear evidence of planning and organisation skills.
- Demonstrated relevant experience in software design development in programming languages such as Java and/or C++.

Desirable Requirements:

- Experience of coordinating research funding submissions through national and international agencies.
- Evidence of successful funding achievements.
- Experience of research student (co-)supervision

Salary: €44,643 to €54,245 per annum (depending on experience).

Start date: Position is available from 1 March 2018.

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

Further information about the Machine Learning and Data Mining Research Group is available at <http://datamining.it.nuigalway.ie>.

Informal enquiries concerning the post may be made to Professor Michael Madden.

To Apply:

Applications to include a covering letter, CV, and the contact details of three referees should be sent, via e-mail (as a single document in PDF format only) to Prof. Michael Madden, michael.madden@nuigalway.ie.

You must put reference number **NUIG 008-18** in subject line of e-mail application.

Closing date for receipt of applications is 5:00 p.m., Thursday 1 Feb 2018 (extended).

Interviews are planned to be held within 2 weeks of the closing date.

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

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

