 

**Postdoctoral Researcher**

**ECSEL Heliaus (tHErmaL vIsion Augmented awarenesS)**

**College of Engineering and Informatics**

**NUI Galway**

**Ref. No. NUIG 040-20**

Applications are invited from suitably qualified candidates for a full-time, fixed term position as a Postdoctoral Researcher with the College of Science and Engineering at the National University of Ireland, Galway.

This position is funded by EU H2020 and is available from 02 March 2020 to 30 November 2021.

The project will focus on development of new computational and cognitive algorithms for Long-Wave Infrared (LWIR) imaging using a new generation of low-cost microbolometer sensors. Research is closely aligned with emerging technology roadmaps for European and US Industry in both the automotive and consumer sectors. Successful candidates will work closely with Engineering teams from Xperi, a World-Leading supplier of Imaging solutions for automotive and consumer markets. These positions will suit highly-motivated candidates with prior research experience and publications who are keen to work on industry-focused research topics.

**Job Description:**

The successful candidate will be responsible for development of new computational and cognitive algorithms for Long-Wave Infrared (LWIR) imaging using a new generation of low-cost microbolometer sensors. They will work closely with Engineering teams from Xperi, a World-Leading supplier of Imaging solutions for automotive and consumer markets.

**Duties:**

* Data collection and dataset preparation
* Development of new computational and cognitive algorithms for LWIR imaging, including training and validation of CNNs
* Keep up to date with DL/CNN research methods and techniques.
* Mentor and assist, as appropriate and as directed, the PhD students involved in the project
* Contribute to the research project’s dissemination in the form of reports, journal/conference papers
* Attend and network at relevant conferences and meeting hosted by relevant professional institutions and other universities as appropriate

**Qualifications/Skills required:**

**Essential Requirements:**

* PhD in Computer Science or Engineering or equivalent research experience
* Experience in programming and training of state-of-art Neural Networks (PyTorch, Tendorflow)
* Proven publication record

**Desirable Requirements:**

* Advanced Deep Learning techniques; Hybrid Visible/NIR/LWIR Optics & Imaging; Multi-frame Imaging Algorithms; LWIR/Thermal Imaging Algorithms; Advanced NIR/LWIR Facial Models; Hybrid Visible/NIR/LWIR Imaging Pipelines.
* Experience in managing ethics compliance for image acquisition protocols for building large datasets from human subjects.
* Experience with state-of-art image processing and computer vision algorithms
* Experience with Generative Adversarial Networks and their training and applications
* Experience with thermal sensing or other non-visible imaging techniques

**Salary**: €37, 874 - € 49,050 per annum (pro-rata)

**Start date**: 01 June 2020

**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.

'NUI Galway provides continuing professional development supports for all researchers seeking to build their own career pathways either within or beyond academia.  Researchers are encouraged to engage with our Researcher Development Centre (RDC) upon commencing employment - see [www.nuigalway.ie/rdc](http://www.nuigalway.ie/rdc) for further information.'

Further information on research and working at NUI Galway is available on [Research at NUI Galway](http://www.nuigalway.ie/our-research/)

For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie)

More information about Xperi can be found at <https://www.xperi.com/>. More information about Heliaus project can be found at <https://cordis.europa.eu/project/rcn/223287/factsheet/en>

Informal enquiries concerning the post may be made to Professor Peter Corcoran at [peter.corcoran@nuigalway.ie](mailto:peter.corcoran@nuigalway.ie) - please (i) make sure to put ‘Industry Postdoctoral Postion’ into the subject line of your e-mail; (ii) provide an up-to-date CV, and (iii) include a short motivational statement in your cover e-mail.

**To Apply:**

Applications to include a covering letter, CV, and the contact details of three referees should be sent, via e-mail (in word or PDF only) to Prof. Peter Corcoran at [peter.corcoran@nuigalway.ie](mailto:peter.corcoran@nuigalway.ie)

Please put reference number **NUIG 040-20** and ‘Industry Postdoctoral Position’ in subject line of e-mail application.

**Closing date for receipt of applications is 5.00 pm (Irish time) Monday, June 1st 2020**

**We reserve the right to re-advertise or extend the closing date for this post.**

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.

