



**Insight Centre for Data Analytics
PhD Position in Neurotechnology for the Blended Control of
Autonomous Vehicles**

Up to 4 years in duration

Background

The Insight Centre for Data Analytics (<http://www.insight-centre.org>) is an SFI funded Research Centre which brings together researchers from University College Dublin, NUI Galway, University College Cork, and Dublin City University, as well as other partner institutions, Trinity College Dublin (TCD), University of Limerick (UL), National University of Ireland, Maynooth (MU) and Tyndall National Institute. It creates a critical mass of more than 400 researchers from Ireland's leading ICT clusters to carry out research on a new generation of data analytics technologies in a number of key application domain areas, such as Health and Human Performance, Smart Communities, Internet of Things, Enterprise and Services and Sustainability and Operations.

The €150m Centre is funded by Science Foundation Ireland and a wide range of industry and European Union partners. Insight's research focus encompasses a broad range of data analytics technologies from machine learning, decision analytics and social network analysis to linked data, recommender systems and the sensor web. Together, with more than 220 partner companies, Insight researchers are solving critical challenges in the areas of Connected Health and the Discovery Economy.

Area of research: Neurotechnology for the Blended Control of Autonomous Vehicles

This PhD project is cofounded by an industry partner and is part of the SFI-funded Blended Autonomous Vehicle project which brings together leading academic researchers and companies interested in next generation vehicles. In particular, within the larger scope of this research programme we seek a PhD researcher to investigate how non-invasive measurement of brain activity and related signals can be used to monitor driver attention and engagement during driving-related tasks as applied to blended control of cars capable of self-driving operation. This is a multidisciplinary project which involves signal processing, experimental design, machine learning and nested artificial intelligence systems. The project is otherwise open in scope and motivated students have an opportunity to shape the research direction to reflect emerging interests and topics in neural interfacing and robotic systems generally. Professor Tomas Ward of the Insight Centre for Data Analytics based at Dublin City University is supervising this particular project.

Eligibility:

BSc or MSc Degree in Electronic/Computer Engineering, Computer Science, Mathematics or other relevant technical discipline

English language requirements for non-native speakers of English is available here:
<https://www.dcu.ie/registry/english.shtml>

Essential Skills:

-Strong mathematical and programming skills (any language)

Desirable skills:

-Signal processing

-Hacking and prototyping skills

Stipend:

Students will have their fees paid and will be given a tax-free stipend of €18,500 per year.

Application:

Informal enquiries about this position can be made to: tomas.ward@dcu.ie

Application Procedure

All expressions of interest, to include CV and 1 page cover letter detailing relevant experience (please check the list of essential and desirable skills in preparing this letter) **in PDF only**, are to be submitted by email to: Prof Tomás Ward - tomas.ward@dcu.ie

**Please clearly state the role that you are applying for in your application and email subject line:
Job 2002 - PhD Position in Neurotechnology for the Blended Control of Autonomous Vehicles**

Interviews will be carried out around the mid January 2020.

Application End Date: 17th January 2020

Start Date: Flexible.

W: insight-centre.org