3X Fully funded COG-MHEAR PhD studentships by the School of Computing, Edinburgh Napier University, UK

The School of Computing at Edinburgh Napier University (ENU) is inviting applications for three fully-funded PhD studentships to support the prestigious UK EPSRC funded Programme Grant: COG-MHEAR, led by Programme Director, Professor Amir Hussain. ENU Co-investigators are Prof Ahmed Al-Dubai, Prof Bill Buchanan and Prof Emma Hart.

COG-MHEAR is a world-leading cross-disciplinary research programme funded under the EPSRC Transformative Healthcare Technologies 2050 Call. It includes academic partners from 6 other UK Universities and a strong User-Group comprising industrial and clinical collaborators, and end-user engagement organisations (including Sonova, Nokia-Bell Lab and Deaf Scotland). The ambitious programme aims to develop the world's first multi-modal hearing-aid demonstrator by radically exploiting and integrating the transformative potential of privacy-assuring and explainable AI, 5G, IoT and cybersecurity, coupled with flexible (skin-based) electronics.

Further information about the School of Computing can be found here. Additional facts and figures on the University can be found here.

The appointed PhD students will take an active research role, under the supervision of COG-MHEAR investigators and COG-MHEAR postdoctoral fellows, to support one or more individual project in COG-MHEAR. The PhD students will be mentored by leading professors and supported to develop interdisciplinary research and innovation skills.

As part of a cohort-based training programme, the ENU PhD students will undertake supervised research in collaboration with other COG-MHEAR project teams and students. This will include participation in external research networks and appropriate events in order to build new relationships, exchange ideas and disseminate findings, including through the development of relationships with postdoctoral researchers, PhD students and COG-MHEAR User-Group members.

Priority COG-MHEAR PhD research areas of interest include:

- privacy-preserving and explainable machine learning and large-scale optimisation for real-time multi-modal speech enhancement, intelligibility and clinical evaluation (2 Studentships)
- IoT-enabled real-time speech enhancement prototype development, including exploring flexible/quantum-electronics and multimodal wireless sensing for end-user cognitive load management (1 Studentship)

Applicants are expected to hold a very good (at least 2.1) Honours or MSc degree, with excellent programming and quantitative research and teamworking skills. They should have a relevant background in any of the following: artificial intelligence/machine learning, hearing-aids/assistive technology, language and speech processing, clinical and intelligibility evaluation, IoT-enabled computer vision, wireless RF sensing and analytics, flexible/quantum electronics, neuromorphic hardware/engineering, and/or multi-modal signal/image processing. A relevant publications record would be desirable. Applicants from industry, or with relevant industrial experience, are also encouraged.

Please note that the studentships will provide a stipend at the UKRI rate (£15,609 per year for 2020/21) and cover tuition fee at the UK/Home student rate only. International applicants will be required to pay the difference in overseas and home-rate tuition fee.

Research inquiries can be made to Prof Hussain (a.hussain@napier.ac.uk). Admissions enquiries should be directed to Prof Al-Dubai (a.al-dubai@napier.ac.uk).

HOW TO APPLY:
Please send a CV and a cover letter indicating how you will contribute to research in one or more of the above areas, with the subject heading "COG-MHEAR PhDs" to Ms Laura Cooper **(L.Cooper@napier.ac.uk**)

Applications Closing Date: 20 April 2021.

Interviews are likely to be held in early May, with a start date in Summer 2021.

Indicative COG-MHEAR References:
https://www.sciencedirect.com/science/article/pii/S1566253520302475
https://www.sciencedirect.com/science/article/pii/S1566253518306018
http://spandh.dcs.shef.ac.uk/chat2017/papers/CHAT_2017_hussain.pdf

The University is committed to inclusion, demonstrated through our work in respect of our diversity awards and accreditations (Advance HE's Athena SWAN Charter) and hold Disability Confident, Carer Positive and Stonewall Scotland Diversity Champion status. More details can be found here.