

Call for papers: special session on Computational Brain Health Research.

We will be holding a special session at the 29th IEEE International Conference on Automation and Computing (ICAC2024) focusing on computational modelling for Brain Health.

Computational Brain Health is an emerging interdisciplinary field, and this special session aims to bring together researchers from computer science, neuroscience, neuropsychology and global health to explore cross-cutting nuances and challenges associated with approaches to development of computational models for Brain Health.

We invite submissions exploring novel approaches and proof of concepts in the following areas but no limited to:

- Multimodal data preprocessing and harmonisation to facilitate computational modelling for Brain Health research.
- Synthetic data generation to facilitate computational modelling in Brain Health research.
- Explainable computational models for early detection, diagnosis and prognosis of Alzheimer's Disease and Related Dementias (ADRD)
- Deep Learning architectures for early detection, diagnosis and prognosis for ADRD
- Explainable computational models for early detection of post-traumatic stress disorder (PTSD)
- Deep Learning architectures for early detection of PTSD
- Explainable computational models for early detection of Autism
- Deep Learning architectures for early detection of Autism
- Exploration of low-cost computational solutions to support people living with Brain Health conditions.

Session organisers:

Dr Sam Danso – School of Computer Science, University of Sunderland

Dr Joe Butler – School of Psychology, University of Sunderland

Dr Tamlyn Watermeyer - Department of Psychology, Northumbria University

Prof Mario Parra Rodriguez – Department of Psychological Sciences & Health, University of Strathclyde