Research Fellow Position (RF2 Statistical Modelling)

The Centre for Lifelong Learning and Individualised Cognition (CLIC), funded by the National Research Foundation (NRF) in Singapore and coordinated through the Cambridge Centre for Advanced Research and Education in Singapore (CARES), is a collaboration between Nanyang Technological University (NTU) and the University of Cambridge. CLIC is a flagship programme in the Science of Learning to harness advancements in neuroscience to develop cognitive training programmes for the improvement of lifelong flexible learning, focusing initially on adolescents and young adults, but also envisaging work with infants and older adults. This is a strategic global initiative for the Universities of Cambridge and NTU that brings together multidisciplinary expertise from over 30 investigators in the areas of Neuroscience, Psychology, Linguistics and Education across the two universities.

Nanyang Technological University is a research intensive university currently ranked 13th globally and placed 1st amongst the world’s best young universities. The University has Colleges of Engineering, Business, Science, Humanities, Arts, & Social Sciences, and an Interdisciplinary Graduate School. Further, the new Lee Kong Chian School of Medicine benefits from a dual campus located at Novena, in close proximity to the Singapore city centre. The Cognitive Neuroimaging Centre (CoNiC) houses state-of-the-art neuroimaging facilities including a newly installed 3T MRI scanner and MEG, as well as new EEG, NIRS, TMS and tDCS equipment.

The first phase of the CLIC program will initially be housed at Nanyang Technological University, Singapore. As the programme progresses, other sites will be developed to meet the needs of the experimental programme. The new CLIC research centre will provide a vibrant, fast-paced, international and interdisciplinary environment with excellent opportunities for skills development and knowledge exchange between partner Principal Investigator labs in Singapore and Cambridge.

The Principal Investigators involved in the first phase of the research programme include:

From Cambridge: Director Professor Zoe Kourtzi (Psychology), Senior Scientific Advisor Professor Trevor Robbins (Psychology), Deputy Directors Professor Henriette Hendriks (Linguistics) and Professor Anna Vignoles (Education), and Imaging Lead - Professor John Suckling (Psychiatry); supported by co-Investigators Prof Barbara Sahakian (Psychiatry) and Dr Michelle Ellefson (Education).

From NTU: Director Professor Annabel Chen (Psychology), Deputy Director Asst Prof Victoria Leong (Psychology), Imaging Lead - Professor Balázs Gulyas (LKCMedicine), and Principal Investigators Professor David Hung (NIE), Asst Prof Bobby Cheon (Psychology) and Assoc Prof Georgios Christopoulos (Nanyang Business School); supported by co-Investigator Dr Teo Chew Lee (NIE).

The CLIC program is seeking one full-time Research Fellow to oversee the statistical design and analysis pipeline of the main study. We anticipate that you will be a statistician, psychometrician, computational psychologist, or computational modeller with expertise in structural equation modelling (SEM) and Bayesian/frequentist approaches to data analysis. You will be a high-performing individual with a track-record of publication in areas such as (but not limited to) statistical modelling of neural or cognitive data, SEM, Bayesian methods, etc. Applicants with at least 3 years of postdoctoral experience may be considered for appointment at a Senior grade. The post-holder will primarily be supervised by Prof Zoe
Kourtzi and Asst Prof Victoria Leong. You will also interact widely with other members of the academic consortium.

Given the highly inter-disciplinary nature of the project, the Research Fellow can also expect to be offered opportunities for involvement in research activities related to human neuroimaging, infant cognition/learning and pedagogy.

**The responsibilities of the position include:**
- Overseeing the overall statistical design and data analysis pipeline of the programme, integrating multiple domains and forms of data (behavioural, neural, demographic, etc)
- Conducting statistical modelling and analysis of data using SEM and Bayesian/frequentist approaches
- Supervising junior members of the research team
- Leading the authorship of academic publications
- Contributing to the production of research reports for funders and the public
- Contributing to the dissemination of research findings
- Performing other research-relevant tasks as required by the Principal Investigators

**Essential requirements:**
- Doctorate (PhD) degree in statistics, psychometrics, computational modelling, experimental psychology, cognitive psychology, neuropsychology, electrical engineering, medical engineering, computer science, or related fields
- Expertise in psychometrics and statistical modelling, specifically SEM and Bayesian statistical approaches
- A publication track record and other evidence of research productivity
- Experience working with human experimental data in neuropsychology or cognitive psychology
- Strong interpersonal, written and verbal communication skills
- Excellent organizational skills and the ability to work within given deadlines

**Preferred requirements:**
- At least 3 years of postdoctoral experience (for appointment at a Senior grade)
- Experience working on large-scale studies and in the analysis of complex datasets
- Experience with neuroimaging techniques (MRI, EEG or TMS)
- Familiarity with image data analysis tools such as SPM, FSL, AFNI, DSIStudio, Python etc
- Data management experience with REDCap
- Experience in a supervisory context

To apply, please send a Curriculum Vitae, letter of application with research interests, and three letters of recommendation to CLIC@ntu.edu.sg. Please indicate the reference number of this position: **CLIC_RF2** in all application documents and correspondence. For informal discussion about the post, please contact Asst Prof Victoria Leong (victorieleong@ntu.edu.sg).

**Contact information:** Centre for Research and Development in Learning, Nanyang Technological University, Academic Building North, 61 Nanyang Drive, ABN-01b-10, Singapore 637335, phone +65 6908 1458