Faculty of Psychology

At the Institute of Educational and Developmental Psychology, Chair of Lifespan Developmental Neuroscience, the 6G-life Research-Hub „Digital transformation and sovereignty of future communication networks“ offers, subject to the availability of resources, three position as

Research Associate

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting as soon as possible. The positions are initially limited for three years with the option of extension subject to the availability of resources. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (e.g. PhD).

Position 1:

Task: The successful applicant will investigate age-related differences and neurocognitive mechanisms of plausible multisensory augmentation. For this purpose, experiments with human subjects of different ages will be carried out in an AR environment with multisensory signals. The aim is to characterize objective psychophysical and neurocognitive indicators for different levels of perceived plausibility. The research activities will include literature research, generation of hypotheses, experiment planning, data collection, data analysis and manuscript preparation in the form of journal articles.

Requirements: university degree (Diploma/Master) in psychology, cognitive neuroscience, or cognitive science (or similar fields); good knowledge and proficiency in English; experiences in experimental data collection using neurocognitive methods (e.g., EEG, fNIRS, fMRI) and statistical data analysis; programing skills (e.g., Python, Matlab) and/or experiences with virtual reality.

Position 2:

Task: The successful applicant will investigate age and individual differences in neurocognitive mechanisms underlying the effects of haptic augmentation on temporal processing. The processing of time during music learning in children and people with autism or dyslexia will be used as the first experimental field to test the effect of therapy supported by haptic augmentation in medical applications. A second experimental field for testing the potential advantages of haptic augmentation on temporal processing will be investigated in the application of human-robot cooperation. The research activities will include literature research, generation of hypotheses, experiment planning, data collection, data analysis and manuscript preparation in the form of journal articles.

Requirements: university degree (Diploma/Master) in psychology, cognitive neuroscience, or cognitive science (or similar fields); good knowledge and proficiency in English; experiences in experimental data collection using neurocognitive methods (e.g., EEG, fNIRS, fMRI) and statistical data analysis; basic programing skills (e.g., Python, Matlab) and/or experiences with virtual reality.
Position 3:

Task: The successful applicant will collect and analyze movement and action data with intelligent wearables (e.g., sensor suits) from people of different ages in order to provide a database for machine learning algorithms. The database which will be used to develop age-representative digital twins of humans for human-machine interactions. The research activities will include literature research, generation of hypotheses, experiment planning, data collection, data analysis and manuscript preparation in the form of journal articles.

Requirements: university degree (Diploma/Master) in computer science, electrical engineering, engineering, psychology or cognitive science (or similar fields); good knowledge and proficiency in English; very good programing skills (e.g., Python, Matlab) and/or experiences with virtual reality, machine learning.

More details about the 6G-life Research-Hub are given under [www.6g-life.de](http://www.6g-life.de)

Applications from women are particularly welcome. The same applies to people with disabilities. Please send your application documents until September 10, 2021 (stamped arrival date of the university central mail service applies) preferably via the TU Dresden SecureMail Portal [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single pdf document to recruitment.6glife@tu-dresden.de with the reference „6G_Li_Position...“ (as given above) in the subject header or to: TU Dresden, Fakultät Psychologie, Institut für Pädagogische Psychologie und Entwicklungspsychologie, Professur für Entwicklungspsychologie und Neurowissenschaft der Lebensspanne, Prof. Ph.D. Shu-Chen Li, Helmholtzstr. 10, 01069 Dresden. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis)