**Job Description**

**Job Title: Research Associate in Deep Learning Based Speech Enhancement and Separation**

**Salary Range and Conditions: Grade 6, £30,505 to £36,924 Full time, Fixed Term**

**Department/Division: School of Engineering**

**Reports To: Dr Allahyar Montazeri**

**About us:** Lancaster University's School of Engineering is seeking a highly motivated and talented Research Associate to join a cutting-edge project funded by the Defence and Security Accelerator Program. The project is in close collaboration with Collaboraite company as the end user and the project partner. This exciting opportunity focuses on developing innovative Automatic Speech Separation and Enhancement Techniques using advanced deep learning approaches. The successful candidate will play a pivotal role at pushing the boundaries of using signal processing and data driven machine learning techniques for automatic speech recognition and enhancement tools.

Lancaster University is highly ranked and research-led and situated near the historic city of Lancaster. The North West of England offers high standards of living, beautiful countryside, including the Lake District, and excellent national and international transport connectivity.

**Job Purpose**

1. To research the state of the art in speech enhancement and separation techniques using advanced deep learning techniques.
2. To develop a software platform and the associated dataset suitable for test and evaluation of the different deep learning-based speech separation and enhancement techniques.
3. To develop the exiting state-of-the-art of algorithms by training the model so that it becomes speaker independent and language independent.
4. To develop a testbed for evaluation of the developed algorithm as the back end of a deep-learning based translation and transcription tool.

**Main Responsibilities**

1. Conduct cutting-edge research on automatic speech separation and enhancement using state-of-the-art deep learning techniques.
2. Develop and implement novel deep learning algorithms for improving speech intelligibility in noisy environments.
3. Develop a platform consisting of the software environment and dataset for evaluating the performance of various deep learning-based speech enhancement algorithms on a pre-trained transcription tool.
4. Collaborate with a multidisciplinary team of researchers and the industry partner to integrate developed technologies into practical applications.
5. Publish high-quality research papers in leading conferences and journals.
6. Present and deliver the project outputs and findings in written and oral form at the project meetings, in the form of regular progress reports, and power point presentations.
7. Deliver the project milestones according to a predefined plan and follow a good project management.