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Deep learning approaches for speech restoration from biosignals obtained from the movements of the face (DeepRESTORE)

DESCRIPTION

In recent years, Silent Speech Interfaces (SSIs) have emerged as a promising alternative to restore oral communication by decoding speech from non-acoustic (silent) speech-related biosignals generated during speech production. Electromyography (EMG) which captures facial muscle activity using surface electrodes, offers a fundamentally new solution to restore communication capabilities to speech-disabled persons. In the framework of the DeepRestore project, acquired EMG signals will be converted into speech. Combination with lip-reading modality will also be tested. The main tasks for the candidate will be: a) taking part in the design and performing of EMG and video recordings b) to process and prepare the acquired signals c) to investigate and evaluate different deep learning strategies to decode the signals into speech d) to document the process and contribute to scientific publications.

We offer a 6 months contract full time to be extended up to 2 years (~33k€Gross salary).

CANDIDATE BACKGROUND

The candidate should preferably have a BSc degree in telecommunications engineering, artificial intelligence, computer science or equivalent preferably with a MSc. Degree. Outstanding curriculum vitae, good programming abilities, education in machine learning and experience in programming is necessary. Strong motivation, team working skills, and fluent spoken and written English will be highly appreciated.

APPLICATION

The candidate should send an e-mail in English to inma.hernaez@ehu.eus with a CV and a brief description of the applicant particular merits to get the position. All applications will be considered regardless of gender, age, cultural background, nationality or impairments. Open until filled.

CONTACT INFO

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