Faculty Name:

Nima Mesgarani

Faculty Email:

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Lab:

Neural Acoustic Laboratory

Project Title:

Decoding auditory attention for real-time BCI control

Description:

This project seeks to advance Brain-Computer Interface (BCI) technology by focusing on the development of a highly efficient auditory-based BCI system. This project aims to address and overcome the limitations of current auditory BCI systems, primarily their slow stimulus presentation rates and modest information transfer capabilities. By integrating auditory attention decoding techniques, we aim to significantly enhance the system's ability to identify target sounds amidst background noise accurately. This approach not only improves the practicality and accessibility of BCIs for individuals with disabilities but also paves the way for advanced communication interfaces between humans and machines. Our goal is to create a more natural and efficient method of interaction that leverages the brain's innate capabilities, thereby opening new avenues for research and application in neuroscience, engineering, and beyond.

Location of Research:

On Site

# of hrs/week:

20

Department/Program:

Electrical Engineering

Eligibility:

MS

To apply, please contact:

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