אורט בראודה
ORT Braude College

Project Title	
Project description (for website): (max. 250 words)	Developing tools for analysis of EEG recordings. The laboratory for biomechanical rehabilitation has recently acquired a new EEG system. We are currently designing an experiment relating to the influence of music and movement on states of arousal, as measured by brain signals. Students will assist in EEG recordings for the experiment and in developing a framework for analyzing the results. Students will take EEG recordings and study and compare different tools for analyzing this data (mostly in Matlab). The outcome will be a recommendation of the appropriate settings, tools and parameters for the existing EEG system, experiment and research questions. (In the case of the remote internship the students will not take part in the EEG recordings but will get sample data and take part in developing a framework for data analysis).
Nature of project: (tick the relevant boxes)	☒ laboratory investigation ☒ computing and analysis ☒ software development ☐ product development ☐ design ☐ field testing and instrumentation ☐ feasibility/case studies ☒ hybrid ((e.g. experimental and ☐ theoretical/experimental and ☐ numerical/software) ☐ Other : Enter text.
Relevant majors: (may be more than one if relating to interdisciplinary project)	Computer science\electrical engineering\biomedical engineering\neuroscience
Expected achievements by project participants: (up to 3 main outcomes)	Learn how to work with EEG signals. Learn how to perform EEG recordings (if internship is on site).

	Define a recommended framework for analysis of EEG data most suitable for the specific system and research.
Max. number of participants that can be hosted:	2
Supervisor: (name, department, link to bio/research page, contact details)	Dr. Anat Dahan , Software Engineering, anatdhn@braude.ac.il https://w3.braude.ac.il/lecturer/dr-anat-dahan/ https://scholar.google.com/citations?user=JCjjtZ0AAAAJ&hl=en
Name of lab participants will be attached to:	Biomechanical rehabilitations, Dr. Orit Braun
Any other information/requirements (e.g. programming skills, study prerequisites, reading lists)	Basic knowledge of Matlab, signal processing and software programming