Web Page:	https://studyinmexico.tec.mx/
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Undergraduate Research Program

Project Name	Hybrid brain-computer interfaces (BCI) for people with neurodegenerative diseases
Campus & Location in Mexico	Guadalajara
Faculty	Engineering
Research Area	Biomedical Engineering
Research Responsible	Javier Mauricio Antelis Ortiz
Description of the Project	The goal in this project is to develop and validate the functionality and usability of a brain-computer interface coupled with a mobile robot and/or a virtual reality system. The BCI integrates non-invasive brain activity (EEG) and superficial muscle signals (EMG). Students will integrate the different components of the interface (HW and SW), conduct laboratory experiments, and perform data analysis using the recorded signals and machine learning models. We have the HW (gTec amplifiers with active electrodes) and SW (BrainTec applications for BCI) required for the research.
Training Provided	Participation in laboratories;Statistical data analysis;Writing and reading of essays / articles
Modality	In Person
Offered During	Summer (5 weeks);Winter (5 weeks);Semester

Student

Tasks/Responsibilities	Conduct BCI laboratory experiments, perform EEG and EMG data analysis, programming in Matlab and/or Python, code development, implementation, training, and validation of machine and deep learning models
Required Language Proficiency	English (Basic);English (Medium)
Required Skills and Abilities	Use of laboratory instruments. Execution of experiments. Basis of Matlab and/or Python. Concepts of digital signal processing.
	1) Being at least in your 2nd year of bachelor

Other Documents Required to APPLY for an Internship	2) Accumulative grade point average (GPA) 2.5 3) Official Transcript 4) 2 letters of recommendation of faculty members 5) Resume 6) Letter of intention explaining the reason why you would like to participate in the research program