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| **Graduation Project Proposal Form** |
| |  |  |  | | --- | --- | --- | | **Project Serial** | # To be completed by the Course Coordinator | | | **Project Title** | **Sign Language Recognition Using Machine Learning** | | | **Supervisor(s)** | Dr. Haytham Azmi | | | **Teacher Assistant (if any)** | Name | | | **Sponsoring Company (if any)** | N/A | | |  |  | | | **Number of Students** | 5 | | | **Names/IDs of Students** | 1. Khaled Medhat Mahmoud Khalifa | 18P3557 | | 1. Mohamed Magdy Mostafa | 18P5160 | | 1. Mohamed Sayed Awwad | 18P7298 | | 1. Yomna Hussein Mohamed | 18P5794 | | 1. Mahmoud Morad Youssef | 18P6555 | |  |  | | | **Project Description** | Since everyday life became online, work, university, games, disabled people haven’t been having the best experience in terms of convenience in the ability to communicate whether it be in the workplace or with their loved ones.  So, we’re thinking of a real time sign language interpreter that works through the webcam used in the meeting, it recognizes the sign language and translates it to text to the other side with the ability to have Text-to-speech enabled by preference | | |  |  | | | **Project Objectives** | A working web/mobile app that allows video calls between two or more people with the following features:   * Sign language translated to text from one side to the other. * Translated text from sign language to speech conversion. * Speech to text conversion. | | |  |  | | | **Required Prior Skills** | * CNN Knowledge * Machine Learning * Deep Learning * React JS * API integration | | |  |  | | | **Deliverables with estimated time plan (Semester 1)** | * Website that the user opens to be able to use their webcam which is able to communicate with the model and provide real-time sign language translation for static sign language. | | |  |  | | | **Deliverables with estimated time plan (Semester 2)** | * Website and a mobile application and they both allow the user to use the webcam of the used device in order to detect static/dynamic sign languages in real-time with the ability to enable real-time text to speech. | | |