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CECS 491A

Assignment 1

September 7, 2018

Senior Design: Project Proposal

**Objective:**

The objective of our project is to give people that are deaf/mute a more efficient means of communicating.

**Proposal:**

Today there are many disabilities that prevent people from communicating such as deafness and muteness. Although we do not have the cure, we are attempting to create a solution that allows people who cannot talk or hear to communicate with others. Our software application utilizes the integrated webcam on laptops as a sensor that will scan a person's hands gestures for American Sign Language. By utilizing common computer hardwares, we are striking for an application that does not require users to make extra hardware/s purchases.The software will then interpret the hand gesture and display in written text what the hand gesture meant in real time. As a person is making gestures we want our application to be able to keep up with what the user is trying to say.

Ordinary people will now be able to understand those who communicate through American Sign Language. We believe our software will be a huge step forward in overcoming this language barrier. Further improvement to this product would be creating a portable machine or an phone application that is much more convenient for daily conversation, and implementing online video chat to globally spread the solution.