

Deliverable

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Paper 1: Caring of Disabilities Deaf Mute Patient with Talking Devices Application Based on Mobile

Publication year: 2018

Author: [Nian Afrian Nuari](#)

Journal Name: [International Journal of Engineering & Technology](#)

The role of nurses in children with disability is to help in communicating so they can interact with others. Deaf mute requires health care and information on health education. This research focused on an application that facilitates Disabilities Deaf Mute Patient to communicate with other by using a mobile phone. This application based on mobile user by typing letters and it will automatically change into the form of voice (text to speech) that have been arranged into a word so can understood by the other person who use the application. This research helps nurses to communicate by using talking tools application. Development of systems using mobile technology by using Java programming language and talking tool. Results of this study was an application of learning system that helps teachers to communicate with their mute children. The application of mute children will be greatly helped in communicating with the interlocutor.

Paper 2: A Novel Technique for Speech Recognition and Visualization Based Mobile Application to Support Two-Way Communication between Deaf-Mute and Normal Peoples

Publication year: 2018

Author: Kanwal Yousaf, Zahid Mehmood, Tansila Saba

Journal Name: [Wireless Communications and Mobile Computing](#)

Mobile technology is very fast growing and incredible, yet there are not much technology development and improvement for Deaf-mute peoples. Existing mobile applications use sign language as the only option for communication with them. Before our article, no such application (app) that uses the disrupted speech of Deaf-mutes for the purpose of social connectivity exists in the mobile market. The proposed application, named as vocalizer to mute (V2M), uses automatic speech recognition (ASR) methodology to recognize the speech of Deaf-mute and convert it into a recognizable form of speech for a normal person. In this work mel frequency cepstral coefficients (MFCC) based features are extracted for each training and testing sample of Deaf-mute speech. The hidden Markov model toolkit (HTK) is used for the process of speech recognition. The application is also integrated with a 3D avatar for providing visualization support. The avatar is responsible for performing the sign language on behalf of a person with no awareness of Deaf-mute culture. The prototype application was piloted in social welfare institute for Deaf-mute children. Participants were 15 children aged between 7 and 13 years. The experimental results show the accuracy of the proposed application as 97.9%. The quantitative and qualitative analysis of results also revealed that face-to-face socialization of Deaf-mute is improved by the intervention of

mobile technology. The participants also suggested that the proposed mobile application can act as a voice for them and they can socialize with friends and family by using this app.

Paper 3: Design and implementation of deaf and mute people interaction system

Publication year: 2017

Author: Fahida Noori Hummadi

Journal Name : International Conference on Engineering and Technology (ICET)

The problems faced by the deaf and dumb people at the present time and the difficulties of their communication with normal persons sparked our interest and led us to try to find a solution to their difficulties and to minimize them as much as possible. Because they represent a significant part of society and they need to deliver their ideas in the simplest way by simple devices. So our project aims to bridge this gap by enabling communication between dumb\deaf people on the one hand and normal people on other hand by introducing an inexpensive electronic device that translates the fingers presses into the text and speech.

Author: Anbarasi Rajmohan, R.Hemavathy, Munirathnam Dhanalakshmi

Journal Name: Sri Sivasubramania Nadar College of Engineering

Communications between deaf-mute and a normal person have always been a challenging task. The project aims to facilitate people by means of a glove based deaf mute communication interpreter system. The glove is internally equipped with five flex sensors, tactile sensors and accelerometer. For each specific gesture, the flex sensor produces a proportional change in resistance and accelerometer measures the orientation of hand. The processing of these hand gestures is in Arduino. The glove includes two modes of operation – training mode to benefit every user and an operational mode. The concatenation of letters to form words is also done in Arduino. In addition, the system also includes a text to speech conversion (TTS) block which translates Communications between deaf-mute and a normal person have always been a challenging task. The project aims to facilitate people by means of a glove based deaf-mute communication interpreter system. The glove is internally equipped with five flex sensors, tactile sensors and accelerometer. For each specific gesture, the flex sensor produces a proportional change in resistance and accelerometer measures the orientation of hand. The processing of these hand gestures is in Arduino. The glove includes two modes of operation – training mode to benefit every user and an operational mode. The concatenation of letters to form words is also done in Arduino. In addition, the system also includes a text to speech conversion (TTS) block which translates conditions. Recognized gesture is used to convert sign into text and audio output for users.