

Techno Graduate Innovators

Batch: 2016

Sourabh Alagundagi,

Sandeep Patil,

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Guide: Uma Mudenagudi

B. V. Bhoomaraddi College of Engineering and Technology, Hubballi

The B. V. Bhoomaraddi College of Engineering and Technology (BVBCET), established in 1947 by the KLE Society, has achieved an enviable status due to a strong emphasis on academic and technical excellence.

The 3 Techno Graduate Innovators won the Technovation Award for their project on Communicative Glove. Communicative Glove is a Human-Machine Interface system that converts the signs made using hand gestures to the corresponding audio and text message understood by all. Communication is a major aspect of life. For speech and hearing impaired individuals, standard forms of communication feel short. The main challenge the speech and hearing impaired individuals face is to communicate their message using sign language which is esoteric to the healthy individuals. But, sign language has proven to be an effective means for expressing and interpreting information for the speech and hearing impaired individuals. Communicative Glove is an ideal combination of a portable hand glove and an Android app. The glove consists of flex and IMU sensors which track the signs made. Further, the processing of sensor data is done by a microcontroller which transmits the processed data to the app via a Bluetooth module. The Android app 'Dhvani' operates either in calibration mode or in function mode. Calibration mode makes the glove useful for all hand sizes. In operation mode of the app, the data received from the glove is converted into speech and text. Also, the app has a listen feature for the hearing impaired, making it to act like voice and ears. The alphabets/numbers/words made in the form of signs are transformed into understandable speech and text, thus enabling the auditory disabled with two-way communication capability. Communicative Glove has been tested for its functionality at the 'Priyadarshini deaf and dumb residential school, Hubballi'.

<http://www.iesaonline.org/Technovation2016/awardwinner.html>



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IESA - Technovation Awards 2016

Techno-Graduate Innovators Award Winner

**Sourabh Alagundagi,
Sandeep Patil,
Shreya Gudasalamani**

B. V. Bhoomaraddi College of Engineering and Technology, Hubballi

For their outstanding contribution as researchers

K Krishnamoorthy
Chairman - IESA

M N Vidyashankar
President - IESA

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