VISVESWARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM-590014

R.F. BASED SPEECH CONTROLLED ROBOT

A Project Report Submitted in Partial Fulfillment of the Requirements for the Degree

Bachelor of Engineering
In
Electronics & Communication

By

Mr. SANJEEVRAO KULKARNI **Mr. SHASHANK PUJAR**

Mr. SUDHEENDRA KATARKI **Mr. VINAY JAIN**

Under the Guidance of

Ms. ROHINI HONGAL

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Abstract

From a long time, there has been a lot of infiltration activity across the border. Monitoring the infiltration activity manually has been a difficult task. To facilitate a foolproof border refuge, an automated system can be used. In this project, an attempt is made to design such a system. The project focuses on controlling the motion of a robot based on the speech commands given by the user. It involves the process of recognizing the speech commands given by the user. Once the command is recognized, it is transmitted to the robot side. The robot is programmed to take action accordingly. The robot is equipped with a wireless camera module, which captures the images and sends them to the user. Based on the images received, the user can give appropriate commands. The system can be used in places where human intervention might be fatal. It can also be used in locations where extremities in climate exist. The added advantage of the system is that it is equipped with a wireless camera which sends back the images of the ambiance where the robot is situated.

Keywords: Speech Recognition, Linear Predictive Coding, Cepstrum, Euclidean Squared Distance, Serial Communication, Wireless, Real-time.