AN EEG-BASED BRAIN CONTROLLED DESIGN WITH AN ITINERANT ROBOT

V. RAJESH KANNAN[1] & A. MARIYAMMAL[2]

[1]ME Communication Systems, G.K.M College of Engineering and Technology, Chennai, Tamil Nadu, India

[2]Assistant Professor of EEE, Vivekananda College of Engineering for Women, Tiruchengode, Tamil Nadu, India

ABSTRACT

In a brain controlled robot is based on Brain computer interfaces. It contains conventional part to deliver the information between the human brain and devices which are connected to the system with different patterns of brain activity into commands in real time. With these commands a mobile robot can be controlled. An importance of the robot that can assist the disabled people in their daily life to do some work with independent of others. Human brain has millions of unified neurons. The physical system provides identified patterns among these neurons then the system translates the given pattern into a different electrical waves. Each wave is a unique signal representation. The brain wave sensor sense the different electrical waves and convert in the form of digital data then the data converted into packets and transmit to the Bluetooth medium. The MATLAB tool is used to extract the data and process the data with level analyzer unit. The robot module has the control commands according to the human thoughts with the open and close eye movement.

KEYWORDS: Signal Intensity, Delta, FIRDA, OIRDA, Theta, Alpha, Beta, and Gamma