Cheap in-house setup for EMG acquisition

Abstract

This paper presents the results obtained by our in-house DAQ system for biphasic EMG sensors. These signals were activation signals of the biceps muscle. Muscles will elicit a signal while it is being activated. The feasibility of the proposed system is studied by carrying out experiments on a selected muscle. A subject was asked to perform a series of voluntary movement with the respect to the muscle concerned. EMG sensors relayed signals which was recorded and analyzed by the MATLAB software. Our research is aimed at the development of a control system for a human exoskeleton.

Keywords — EMG, biosensors, DAQ