

## **Design and development of a low cost EMG signal acquisition system using surface EMG electrode**

### **Abstract**

Electromyogram or EMG signal is a very small signal; it requires a system to enhance for display purpose or for further analysis process. This paper presents the development of low cost physiotherapy EMG signal acquisition system with two channel input. In the acquisition system, both input signals are amplified with a differential amplifier and undergo signal pre-processing to obtain the linear envelope of EMG signal. Obtained EMG signal is then digitalized and sent to the computer to be plotted.

**Keywords** — Acquisition system, differential amplifier, electromyogram, linear envelope, surface EMG electrode