

## **Monitoring daily fitness activity using accelerometer sensor fusion**

### **ABSTRACT**

The advancement of sensing technology offers a platform to monitor our daily fitness activity in real time environment situations. The introducing of the wearable sensing device provides an opportunity to monitor and analyze the amount of daily fitness activity conducted. An accelerometer sensor embedded in the wearable device is used to sense the activity vibration. However, recognition performance is significantly correlated with the sensor placement. Hence, the sense from various sensor placements is fused to enhance the recognition performance. In this paper, physical activity monitoring is proposed by integrating the acceleration signal from various sensor placements. The amount of fitness activity could be monitored and analyzed by extending the internet connection linked with the wearable device. Thus, this system could extensively deploy for everyone who are looking for having a better lifestyle.

**Keyword:** Accelerometer sensor; Wearable device; Activity monitoring