Abstract:
In recent days, the cardiovascular disease problem has been so high in the entire world. There are well understood early symptoms of cardiovascular diseases, such as heart attack, stroke, and hypertension, which are caused by disorders of the heart and blood vessels that could be used to greatly help in saving many lives and minimize damages by detecting and reporting at an early stage. This device can help in reducing the number of deaths by this type of disease. The World Health Organization says that an estimated 17 million people die each year from cardiovascular disease. A portable device to monitor a patient remotely is one of the solutions to this problem. The portable device discussed here will continuously monitor the patient and inform their status to the respective authority and also to the doctors under whom this patient is taking medication. This device is a type of ambulatory electrocardiography device, which is used to monitor the electrical activity of the heart along with heart rate and oxygen level. Data is extracted from the sensor modules and stored. To make the system real-time, a GSM a module to upload data on the cloud is incorporated. By monitoring these biomedical data Doctors can easily support the patients for medication based on the severity. If a patient feels an abnormal condition and wants to check current data for that purpose LED display is used. The system is a compact device for predicament situations, low cost, and real-time monitoring is available.
Keywords: Holter monitoring, Heart diseases, ECG signal, Pulse sensor, OLED Display.