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CENTRALIZED REMOTE PATIENT ECG MONITORING THROUGH POWER LINE

A Project Report

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IN

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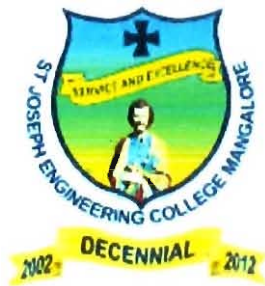

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ABSTRACT

Power line communication is a progressing technology that utilizes electric power lines for efficient, instantaneous transmission of data. The objective of this project is to design and implement a power line communication network capable of monitoring ECG Signal from a Remote place.

Electrocardiography is the simplest non-invasive method of collecting signal from the beating heart that provides extremely useful information to the doctors. Hence ECG data collection is almost a routine in any clinic dealing with heart patients. The procedure is highly standardized and the recorder is well calibrated so that any doctor anywhere in the world can interpret the data.

The transmission of ECG signals over already existing power line eliminate a need of laying additional cables hence installation cost decreases, apart from that if the receiving site where the ECG is been monitored by doctors has been changed then the entire cable system must not be rewired.

Wireless devices are now becoming more popular and work quite well, but provide speeds that are excessive for simple applications. Performance of wireless networks is also affected by line of sight obstructions such as walls.

One major attraction of power line communication is the high availability of power outlets. "As long as there is a power socket, there is a connection to the network". The high node availability is why this technology has tremendous market potential. Power line communication technology has been slow to evolve because the lines were designed solely for the purpose of 50Hz main power distribution.