**ABSTRACT**

Rapid development in IT and various modern communication techniques have given raise to Internet of Things (IOT). In the present healthcare scenario usage of IOT technologies help physicians and patients abundantly as real time monitoring is easily possible. Body sensor network (BSN) enables a doctor to monitor a patient’s illness status in real time and thus enabling him to take immediate remedial action. However, development of this technology demands careful consideration of security of patient. An attempt is therefore made to cover major security requirements in BSN CARE. Subsequently a secure IOT based BSN CARE is proposed which can efficiently perform various requirements. BSN architecture can be of wearable and implantable sensors. Each sensor node is integrated with bio sensors such as EEG, EMG, BP etc. These sensors collect the physiological parameters and forward them to local processing unit (LPU). LPU is router to BSN CARE server using mobile network 3G, CDMA, GSM, GPRS. When LPU detects any abnormalities then it provides immediate alert to the person that wearing the bio sensors.

**INTRODUCTION**

In the present-day scenario, we find a large no of elderly people staying alone in flats or at isolated places. Recent research indicates that about 80% of aged people above the age of 65 are suffering from at least one life style or chronic disease. This causes many elderly people difficulties in taking care of themselves. Hence it is apparent to provide a decent quality of timely healthcare services to the elderly who are affected. The rapid advancement of IT and communication is making it possible to provide innovative modern healthcare solution instantly. Now IOT enables to extend the concept to the internet and make it more efficient and feasible. IOT allows seamless interactions around different types of devices such as medical sensors, monitoring cameras, home appliances and so on. In healthcare system IOT involves many kinds of cheap sensors that enables aged people to enjoy modern healthcare services anywhere any time and thus improving quality life of aged people. To give a brief about my proposed project, it consists of wrist band worn by patient on wrist with temperature sensor and NODE MCU. Temperature sensor LM-35 is embedded in the wrist band itself whereas oxygen level, heart beat and pulse rate are measured by sensors clipped on to a fingertip and connected to the node mcu by a wire. C++ embedded code will then be uploaded to node mcu using android application. There after the data base is fed to the cloud server from where it is further transmitted to the doctor, family, friends and emergency who take appropriate to save the life of the patient.

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