

Providing a system based on the cellular network for remote patient monitoring

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Today, with advances in science and technology, it is more possible than ever to achieve a more healthy community. On the other hand, with increasing concerns, people have a need for medical supervision and control. Stress managing is one of factors among people and causes searching new ways. The aim of this study is to develop and test a remote management blood pressure system that effectively involve patients in the treatment process. In the past, many systems has designed to monitor patients remotely in order to promote public health that with a set of devices or sensors related to patients' physiological conditions, measure and transmit some parameters such as temperature, blood sugar, blood pressure, and heart rate. The most important systems are RPMS, C-SMART, deStress, WHSN, and ASyMMS that are designed respectively in the field of cardiology, general health, stress, and emergency monitoring using sensors around the body. In this thesis, a proposed system was tested and designed to control blood pressure. The measured data of each patient was transferred by GSM technology. Amounts received were analyzed in a fuzzy system, besides normal groups, high-pressure and low-pressure groups, pressure variables were analyzed. The results achieved of 1200 samples indicate that 90 percent of information with a nominal error of 1.45 percent device and approximately 8 percent chance of data loss, has reliability to deploy the proposed architecture. At the end a simulation software based on the actual 1200 samples was created in order to assess technical features such as speed test, and security.

Keywords : Keywords: Telemedicine, Blood pressure, Fuzzy Inference System, GSM technology.

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