

عنوان مقاله:

Wireless Sensor Networks for Medical Care in the Field of Infertility

محل انتشار:

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خلاصه مقاله:

Human beings are always looking for the causes of sterility and infertility. Various methods have been presented to diagnose the cause of male or female infertility. Nowadays, this issue is highlighted in the modern world. The present study uses combination therapy in a medical monitoring system of a traditional medicine clinic. And constant monitoring of the physiological status of patient and its parameters is necessary. The infertility parameters in males includes blood pressure (BP), heartbeats, testosterone hormone, sperm test (jumps, minimum sperm count, minimum move, minimum morphology), and patient's health status. In the proposed system, a coordinator node in the patient's body gathers all the signals received from wireless sensors and sends them to the base station. Sensors attached to the patient's body form a wireless body sensor network (WBSN) and are able to feel the heartbeats, blood pressure, and so on. This system can detect abnormal conditions, issue a warning to the patient, and send SMS/e-mail to the physician. Moreover, the proposed system consists of multiple amplifier nodes to amplify the information sent by the responsible coordinator node to reach them safely to the base station. The main advantage of this system compared to previous systems is the reduction of energy consumption which prolongs the life of the network, increase the speed, and expand the coverage of communications to improve the quality of life of the patient. This system is considered for medical and health care of Tose'e Traditional Medicine Clinic.

کلمات کلیدی:

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