COIN_CS_16

IOT BASED ELECTROLYTE BOTTLE FOR HEALTHCARE

Dr.M.Vimala Devi[1] **K.Dharani[2]** **R.Jeevitha[3]** **R.Manjula[4]** **M.Praveen Kumar[5]**

Associate Professor[1], UG Scholar[2,3,4,5]

Department of Computer Science and Engineering

K S R Institute for Engineering and Technology.

Abstract - During recent years, Good patient care in hospitals, assessment and management of fluid and electrolyte is the most fundamental thing required. In current health care measures, whenever a electrolyte bottle is fed to any patient, the patient needs to be continuously administered by a nurse or any caretaker. Almost in every hospital, a nurse or caretaker is responsible for monitoring the electrolyte bottle level continuously without any interruptions. In hospitals, due to heavy workloads nurses forget to change the electrolyte bottle once it is emptied, it will bring a bad consequences to the patient, the air bubbles entering the patient bloodstream which cause immediate death. Hence to prevent the patient from getting harmed and protect their lives during electrolyte bottle feeding period, the electrolyte bottle level monitoring system have been developed. The system consists of micro controller which receives input from the IR sensor and it sends output to the GSM module. An alerting signal using sound alarms for replacing the glucose trip bottle is being used in very few hospitals. The sound alarms may not be heard by nurses ifithey are not too close enough and obviously sound cannot be increased as it is a hospital. So replacing the sound alarms with the alerting phone message may be still more efficient since everyone will use their phone always and thus using a GSM module is not so much costlier and it can be easily implemented. The proposed system is built using Internet of Things (IoT) platform. The proposed system comprises of sensors which will act as a level sensor for monitoring the critical level of the electrolyte bottle. Electrolyte bottle reaches the critical level which is sensed by the IR sensors. This sensed output is sent to the micro-controller which scans the database for retrieving the contented information and alert is sent to the nurses and doctors in the hospitals. If the nurse attends the patient, then she should stop the buzzer and reset the whole system. if the nurse fails to attend the patient within the set time limit, the reverse flow of the blood into the electrolyte bottle is stopped. For this a spring-de motor arrangement will be made. The clamp will be attached to spring, along with the compression and stretching of spring, the clamp will also move in