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IOT BASED ANAESTHESIA INJECTOR THROUGH ROBOT

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Abstract
The objective of our project is to make the alert message send through IOT module, In the hospital the patient should be in anaestheticcondition during operation suppose the operation is lasts for a long time 4to5 hours, complete dose of anaesthesia cannot be administered in a single stroke it may be lead to a patient death or unconsciousness if the lower amount of anaesthesia is given to the patient the patient is wakeup in half of the operation to avoid this, the anesthetic administer few millimeter of anesthesia per hour to the patient. if the anaesthetist fails to administer the anaesthesia to the patient at the particular time interval, other allied problems may arise. To avoid this we design an IOT based anaesthesia injector based on an arduino controller. The anesthetist can set a level of anaesthesia in terms of milliliter per hour to administer anaesthesia to the patient with the help of keypad. If the level of anaesthesia is decreased to lower level, the alert message send though IoT module.

Keywords-- Automated Anaesthesia, Arduino UNO,SPO2,Heartrate,

1. INTRODUCTION

A patient must be anesthetieze before any major surgery by the doctors to start the surgical procedure. in case of major surgerieswhich could take up to 4 or 5 hours, the complete dosage of anasthesia could not be administered in single dose of patient. since excess dose may case critical condition to the patient whichcould lead to permanent unconsciousness Moreover anaesthetist may fail to administer the accurate dose of anaesthesia for the period of the predestined time which might to disturbed the patient during surgical procedure The incidence of error is drastically reduced due to automatic mechanism of drug administration. In this context there is a need to automate the processes related to anaesthesia to minimize human error, disturbance from routine repetitive activities could be minimized and anaesthetist may have more time to take direct care to patient.Nowadays embedded system is used in many applications in medical industries to control various biological and biomedical parameters. Microcontroller is used to regulate the anaesthesia mechine automatically depending upon the various clinical parameters such as body temperature, heart rate and respiration. The main of the system is to control the drug injection speeddepend upon the patient's state during the surgical procedure. themain reason for administration of anaesthesia is to relive the anaesthesiologist so that they can dedicate their attention to other tasks as well fluid balance, ventilation, drug application etc thus to increase the patient's safety. The dosage given manually by doctors at times may vary from its standard value and result in ill effect on the patient. In order to achieve efficient injection of anaesthesia by automatic anaesthesia

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