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Belgaum- 590010, Karnataka

A PROJECT REPORT ON

"AUTONOMOUS INTRAVENOUS INFUSION SYSTEM & HEALTH MONITORING"

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Prescribed by VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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2013-2014

ABSTRACT

Medical health has been a primary concern in the society for a long time. It is one of the most important aspects to consider when talking about human resource development. The world has been facing innumerous diseases and consequent deaths. These diseases are a huge threat as they result in loss of a major part of the ecosystem i.e. biotic beings.

Projects on biomedicine find a lot of applications. Each year, there are more than 1.7 billion cases of diarrhea, which lead to the death of many children. These deaths are the result of excess fluid loss and dehydration. Loss of fluids from the body can be treated with intravenous (IV) therapy. In this paper, we discuss primarily about the infusion of blood and glucose into the patient. Due to low or high infusion rates or even no infusion for a long time leads to several deaths. Thus a device that monitors the rate of infusion accurately as and when needed by the patient is required. This device will overcome the challenges of manual monitoring like checking the flow from time to time, as well as those of the basic infusion system like probable leakage of fluid.

The administration of intravenous (IV) fluids is an integral part of patient care in hospital allowing for the delivery of parenteral fluids and additives. Ensuring the accuracy of the infusion rate is an important goal in all settings, but there are some rate critical settings where the risks of both under-and over-infusion must be avoided. These would include resuscitation, the delivery of toxic therapies and in the young and elderly.

The control of the infusion rate is usually achieved with a roller-clamp or by a volumetric pump device. Our aim is to make IV flow automatic with more accuracy. What if wireless and medical sensors are combined???

Few years ago, there was joint family system hence patients were able to get medical help within time. But nowadays one may lost his life because of not getting proper help within time. In such situations this prototype gives indication to their doctors and they immediately get medical help.