Kuvempu University

PROJECT REPORT
ON

"Security and privacy in RFID and its application in Telemedicine"

Submitted in partial fulfillment of the requirements for the award of degree in

BACHELOR OF ENGINEERING
IN
ELECTRONICS AND INSTRUMENTATION

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2008-09

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ABSTRACT

In the presents days we are seeing situations in hospital that the patients are getting into trouble due to the mismanagement of the drugs and also for not getting right medicine at the right time. So there must be some system which can have a report of the patients, doctors and also nurses. There are many ways like manual data management, digitally managing the data etc... As manual data management is not so effective, we can adapt the digital data management of the hospital using the new technology called RFID.

In this project we propose an RFID application in telemedicine to study supply and demand in hospitals and healthcare. In this application, supply and demand can be studied for doctors, nurses, and patients in hospitals and healthcare services. Doctors, nurses, and patients have RFID tags attached so that bottlenecks of supply and demand among them can be identified and improvements can be made possible. RFID tags can be built as plastic bands strapped onto wrists. In the tags only an ID is stored to reduce security and privacy attacks.

The unique ID is associated with a database record saved in a server connected to RFID readers. In the database, the record of a patient may include the patient's name, date of birth, gender, medical record number, billing, medical insurance, pharmacy and so on. For doctors and nurses, tags are embedded in their access IDs, which are normally used to access all kinds of rooms. Analysis of activities of doctors and nurses can be performed, especially in emergency rooms, such as measuring the flow of doctors and nurses, including the time periods they spend on some patients or wait for some conditions such as resource conflicting before doing something. Therefore, bottlenecks can be identified and improvements with high parallelism and reducing resource conflicts can be achieved.