

Computer Engineering Department
COE400 Sec. 02
Term Project (051)

Design of a Proactive Smart Intensive Care Center

The project aims at designing a commercial standard and robust design of a **proactive smart intensive care center** using state-of-the-art embedded system technology and sensor network. The intensive care center should serve those patients with common chronic diseases like cardiovascular or high blood pressure diseases. The intensive care center should be context-aware focusing on the welfare of these patients by adapting to their needs using RFID (Radio Frequency Identification) and web technology, as well as coping with emergency situations.

- A prototype model should be designed and implemented for demonstration.
 - **Reliability:** In case of any machine failure, it should send an SMS or email reporting failure.
 - **Flexibility:** It should be flexible in the sense that it can accommodate easily more features at a later stage.
 - **Portability:** It should be portable in the sense that it can be installed easily anywhere with less wiring, less number of power supplies, etc.
 - The design should have time and date stamping in some log file.
 - The design should include innovative ideas, should be low cost and simple to install and maintain.
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- ✓ A full comprehensive final report should be prepared with an electronic version including installation and user manual on a CD.
 - ✓ A website is also required which should have all the related information of the project as well as it could be use for the publicity of the project.
 - ✓ Submission date of complete project with the final report is your last lab. of the current semester. **No extension** but it can be submitted earlier.
 - ✓ A project proposal is required exactly after 2 weeks from now with specs.