



**MIDDLE EAST TECHNICAL UNIVERSITY**

**COMPUTER ENGINEERING DEPARTMENT**



**CENG491**

**SENIOR PROJECT**

**PROPOSAL REPORT**

**Project Title:**

Mobile Solutions Enhanced by Multimedia for Improving Health Care

**Company Name:**

BUTA

**Members:**

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**Motivation and Purpose:**

There has been an important health care problem especially for rural areas. Accessing to doctor generally takes very long time or patients' waiting queues are very imbalanced, some doctors are available, while the others have so many waiting patients at that time. Therefore, we want to construct a system that helps patients to get examined in minimum time. It is important for the people especially in rural areas because it helps the patients to reach the appropriate doctor in minimum time by showing the shortest path to available one. It also helps to balance the doctors' workload.

**Project Description:**

We give an opportunity for patients to access doctor easier via this software product. In this project we will have a database which keeps all the information so that one can see the doctor or the hospital information, schedule of the doctor, number of waiting patients, distance to the current position and the shortest path via this application. The main subject of this application is to focus on mobile technologies. However, besides mobile technologies, we will also focus on web technologies.

This application can be used not only by the people in rural areas but also people living in urban areas can also use to facilitate their jobs. Because accessing to doctors get increasingly harder.

To summarize, our project includes:

- Mobile access to all the information (doctor, hospital etc.)
- Bedside access to patient records: Increase efficiency by reducing demand for paper records
- ePrescribing: Mobile prescription writing and verification of drug interactions
- Electronic billing for in-home healthcare workers

### **Market Search and Literature Survey:**

**The Moca project:** A project launched by MIT students uses cell phones to boost access to health care in rural areas of developing countries. They also developed mobile software that lets health care workers in the remote northernmost Philippines province of Batanes use cell phones to send X-rays to radiologists in urban areas

**UNHCR project:** Czech mission funds health project for refugees in Malaysia. This mobile clinic project will enable health care services to reach refugees where they are.

Unlike the project UNHCR, our project includes easiness that people can use GPS technologies and also our product includes the easiness of using web in order to find the closest hospital or available doctor. We will make a mobile application for iPhone and the other Java based mobile devices in order to simplify this procedure.

### **List of Publications**

- Tan Joseph, Healthcare Information Systems and Informatics: Research and practices, 2008.
- Bali Rajeev and Dwivedi Ashish, Healthcare Knowledge Management: Issues, Advances, and Successes, Health Informatics Series, 2008.