Mobile Tracking on Patient Progress

(m-TOPP)

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By

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ABSTRACT

Much of the supportive technology developed for use within medical environments is targeted towards computers. In this report we present a study performed to use mobile application for store and follow up patient's state. With the increasing of hospital demands and challenge doctors and nurses face problems in tracking the conditions of patients. Healthcare professionals spend much of their time wandering between patients and offices, while the supportive technology stays stationary. Therefore Mobile Tracking on Patient Progress by using mobile devices is proposed to minimize such challenges and demands, by allowing doctors to track the patient's conditions more efficiently and easily. The design of the prototype presented in this report reflects how doctors and nurses tracking patient's condition, and it also allow the doctors to reach the information at any location and at any time. The report concludes that the working environment would be improved by supporting the mobile workers with mobile technology. The main result of this report is a proposition of how to use mobile application to track the patient's condition and store this information in the data base for efficient access.

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LIST OF ACRONYMS

Acronym	Full name
CSCW	**Computer Supported Collaborative Work**
EPTS	**Electronic patients Tracking System**
HCI	**Human Computer Interaction**
m-TOPP	**Mobile Tracking On Patient Progress**
PDAs	**Personal Digital Assistants**
PIM	**Personal Information Management**
PUEU	**Perceived Usefulness Ease of Use**
RFID	**Radio Frequency Identification**
RTLS	**Real Time Location Systems**
TAM	**Technology Acceptance Model**
UUM	**University Utara Malaysia**

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

During the last three decades, development of medical technology has been the main engine that has driven the spectacular advances in our ability to diagnose and treat many human ailments. This has reduced mortality and morbidity for thousands *(Saha, 1995).* Medical costs paid by the governments grow so rapidly that it will be necessary to reduce other areas of country spending (including national defense) to the "bare bones" levels *(Gover, 2000).* Information technology plays a major role in every field of modern development and is an essential tool in health care. Mobile technology has offered an opportunity to provide a new generation of people with the means to interact with activities irrespective of location. With the speedy development of mobile communication and wireless technologies, business activities will break away from the limitation of region and time step by step, which bring the continuous influences on organizations *(Lihua, 2005).* Mobile computing applications allow anytime, anywhere access to the Internet and Corporate intranets.

This study aimed to develop a handheld solution that could support hospitals in tracking patient's progress. In the hospital where this study was conducted the doctors and nurses face problems to track the patients state and share the information of the patients.

Handheld computers have been adopted in the medical environments over the last decade, mainly as a lightweight format for reference literature, but also as a time

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