

**Mobile Tracking on Patient Progress
(m-TOPP)**

**A thesis submitted to the Graduate School in partial fulfillment
Of the requirements for
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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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TABLE OF CONTENTS

Title	page
PERMISSION TO USE	I
ABSTRACT	II
ACKNOWLEDGEMENT	III
TABLE OF CONTENTS	IV
LIST OF FIGURES	IX
LIST OF TABELS	XI
LIST OF ACRONYMS	XII

CHAPTER ONE INTRODUCTION

1.0 Introduction	1-2
1.1 Problem statement	3-4
1.2 Objective	4
1.3 Motivations	4
1.4 Scope of study	5

1.5 Significance of the study	5
1.6 Organization of the report	5-6
1.7 Summary	6

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction	7
2.2 Mobile applications	7-8
2.2.1 Personal digital assistants (PDAs)	8-10
2.3 Mobile applications in health care area	10-11
2.3.1 Handhelds in health care	11-12
2.3.2 Mobility in health care	12-13
2.4 Electronic patients tracking system (EPTS)	14-15
2.4.1 EPTS system component	15
2.5 Related works	16-18
2.6 Summary	18

CHAPTER THREE METHODOLOGY

3.0 Introduction	19
3.1 Awareness of Problem	21
3.2 Suggestions	21
3.3 Development	21-22
3.4 Evaluation	22
3.5 Conclusion	23

CHAPTER FOUR SYSTEM ANALYSIS AND DESIGN

4.1 Analysis mobile tracking on patient progress	24
4.1.1 Lists of Requirements	24
4.1.1.1 Functional Requirements	25
4.1.1.2 Non Functional Requirements	26
4.1.1.3 Software Requirement	27
4.2 Interaction between the prototype and its user	28
4.3 Sequence Diagram of mobile tracking on patient progress (m-TOPP)	30

4.3.1 Login Sequence Diagram for Doctor	31
4.3.2 Error Login Sequence Diagram for Doctor	32
4.3.3 Login Sequence Diagram for Nurse	33
4.3.4 Error Login Sequence Diagram for Nurse	34
4.3.5 View patient information and Manage patient state Sequence	35
4.3.6 View patient information and View patient state Sequence Diagram	36
4.4 m-TOPP prototype Design	37
4.4.1 Main prototype page	37
4.4.2 Login for Doctor	38
4.4.3 Enter Patient ID	39
4.4.4 View patient information for Doctor	40
4.4.5 Manage patient progress	41
4.4.6 View patient state for Doctor	42
4.4.7 View History Patient state	43-45
4.4.8 Enter Patient state	46
4.4.9 Login for Nurse	47
4.4.10 Enter Patient ID for Nurse	48
4.4.11 View patient information for Nurse	49
4.4.12 View patient state for Nurse	50
4.5 Summary	51

CHAPTER FIVE USER EVALUATION

5.1 Introduction	52
5.2 Interview	52-53
5.3 Usability Test for the m-TOPP Prototype	54
5.3.1 Data Analysis	54-66
5.4 Conclusion	67

CHAPTER SIX CONCLUSION AND DISCUSSION

6.1 Introduction	68
6.2 Constraints and limitations	68-69
6.3 Contribution of Study	69
6.4 Recommendations	70

REFERENCES	71-75
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APPENDIX A	76
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APPENDIX B	110
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APPENDIX C	118
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LIST OF FIGURES

Figure	Title	page No
2.1	The New Generation of personal digital assistants (PDAs)	10
2.2	The New Generation of Mobile Phone	11
2.3	The Electronic Patient Tracking System	14
3.1	General Methodology of design research	20
4.1	Main Use Case	29
4.2	Login Sequence for Doctor	31
4.3	Error Login Sequence for Doctor	33
4.4	Login Sequence for Nurse	33
4.5	Error Login Sequence for Nurse	34
4.6	View patient information and manage patient state Sequence	35
4.7	View patient information and View patient state Sequence	36
4.8	Main page of the prototype	37
4.9	Login page for Doctor	38
4.10	Enter Patient ID page for Doctor	39
4.11	View Patient information pages for Doctor	40
4.12	Manage patient progress page	41
4.13	View patient state page for Doctor	42

4.14	View history patient state 1 page	43
4.15	View history patient state 2 page	44
4.16	View history patient state 3 page	45
4.17	Enter patient state page	46
4.18	Login page for Nurse	47
4.19	Enter Patient ID page for Nurse	48
4.20	View Patient information pages for Nurse	49
4.21	View patient state page for Nurse	50
5.1	Job Statistic	56
5.2	Question 2 Histogram	58
5.2	Question 2 Statistic	58
5.3	Question 7 Histogram	60
5.4	Question 7 Statistic	60
5.5	Question 12 Histogram	62
5.6	Question 12 Statistic	62
5.7	Question 13 Histogram	64
5.8	Question 13 Statistic	64
5.9	Question 10 Histogram	66
5.10	Question 10 Statistic	66

LIST OF TABELS

Table	Title	page No
2.1	Related Work	16-17
4.1	Functional Requirements	25
4.2	Non Functional Requirements	26
4.3	Software Requirement	27
5.1	Questions and answers	53
5.2	Descriptive Statistic	55
5.3	Job Frequency	56
5.4	Question 2 Response	57
5.5	Question 7 Response	59
5.6	Question 12 Response	61
5.7	Question 13 Response	63
5.8	Question 10 Response	65

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

The contents of
the thesis is for
internal user
only

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