

**DETERMINATION OF MAGHRIB AND ISYA' TIMES PRAYER BY
USING SKY QUALITY METER (SQM) AND COMPARISON DATA OF
MOON PROGRAMMER**

SITI HUSNA BT MOHD KHIRRUDIN

**Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Physics
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

NOVEMBER 2010

ABSTRACT

The study about how to determine the Islamic prayer times where it has been extensively investigated. The prayer times determination have been known that used traditional methods such as the human eye. Although the prayer time examined by the astronomer's but this project is to get closer to Allah and we are so blessed to be Muslim. In this project was presented 2 prayer times there are Maghrib and Isya's. In addition, shown the optical sky brightness at twilight measurement at Port Klang. The measurement was done using electronic device, SQM (Sky Quality Meter). Which can detect the brightness of sky and human eye. Based on the result the human eye still give the easiest way to predict the prayer time but SQM is best alternative device. Both of SQM and human eye measure the amount of perceived light at twilights which is coherent with the statement of the problem on visibility when there is no light. Most of data show that both measurements are ahead from official prayer times. This is because the measurements are made directly at the time rather than official prayer times which generate based on fix criterion.

ACKNOWLEDGEMENT

First and foremost, I would like to express my utmost gratitude to Allah S.W.T. for His guidance and His blessing that bestowed upon me, for me to complete the Final Year Project. I use this opportunity to thank all those who are directly and indirectly involve in collecting data and information related to finding in order completing my project.

A special appreciation to Miss Zety Sharizat bt Hamidi who my supervisor and also my lecturer for the knowledge and experience shared, and also for giving me the chance to learn throughout this project. I would also like to thank the Dr. Zamri Zainal Abidin, my co-supervisor and all staff at the University Malaya's laboratory who have contributed a lot by helping me to complete this internship.

To my parents, thank you so much for the undivided love and support. It really gives me the strength to get through all the difficulties throughout my life. I also would like to convey thanks to my friend for the hard work in arranging the entire project.

Not forgotten, a million of thanks to Faculty of Sciences for helping me out with their own field of expertise and also for the continuous support throughout this project. Thank you and may Allah bless you all.

Siti Husna Bt Mohd Khirrudin

(2008411464)

LIST OF FIGURES

Figures	Caption	Page
2.1	Display showing times prayer	7
2.3	Geometrical of Twilight	11
2.4	Front and back of SQM	15
3.2.1	SQM Block Diagram	22
3.2	The Software of SQM Reader	24
3.4	Colour Spectrum of the Complete Generated	26
3.5	Flow Chart of Project	29
4.1	Maghrib and Isya at Port Klang, 7 Sept 2010	31
4.2	Times Prayer at Port Klang at 12 Sept 2010	33
4.3	Maghrib and Isya at Port Klang, 15 Sept 2010	35

CHAPTER 1

INTRODUCTION

1.1 Introduction

Salat (“Quran’an and Sunnah”) is practice of formal prayer in Islam. Its very importance for each Muslims indicated by its status as one of the Five Pillars of Sunni Islam. It’s having prescribed conditions, a procedure and also time’s prayer. In the Sunni Islam, Salat have five (5) periods of the days of tradition, where they are measured according to the movement of the Sun.

When we Salat in awe performing this religious observance in the presence of our Almighty Lord by feeling His might and grandeur, with fear and respect. A believer who wishes to properly fulfill this obligation must take measures against everything that might prevent this awed awareness and display the maximum to ensure the concentration and attention required in Salat. The correct performance of these prayers is a great opportunity to remember our Lord, praise Him, and worship Him as one god in the knowledge He is free of all imperfections. Indeed, in one verse Allah commands to do Salat in order to remember Him: