

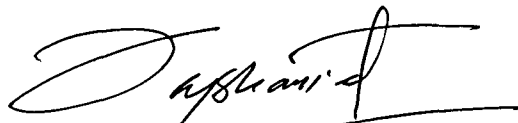
**AN ANALYSIS OF PRAYER TIME BETWEEN
MALAYSIA (SHAH ALAM) AND MECCA (SAUDI ARABIA)
(JULY 2010 - MARCH 2011)**

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

APRIL 2011

This Final Year Project Report entitled “**An Analysis of Prayer Time between Malaysia (Shah Alam) And Mecca (Saudi Arabi) (July 2010 – March)**” was submitted by Nor Idatul Adawiyah Binti Abdullah Sani, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Physics, in the Faculty of Applied Sciences, and was approved by



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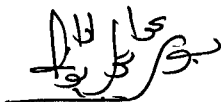
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ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest gratefulness to ALLAH S.W.T for giving me good health, strength and faith upon my completion of this study. I would also like to express thanks to my supervisor for this project, Miss Zety Sharizat Binti Hamidi for all the helpful guidance and advices she gave me right from the start. Her motivation and willingness to keep encouraging and entertaining me contributed enormously right to the end of this project. And to my co-supervisor Dr.Kassim Bin Bahali, thanks for always supports me on my research proposal.

Besides, I would also like to thank of Mara University of Technology (UiTM) for willingness in providing me with a good environment and facilities for completion this project.

And finally, for my families and friends, especially my partner practical at Al-khawarizmi, Mohd Zawawi Bin Mohamad. The honorable appreciation goes for them as for their understandings and undying supports on me in completing this project. Without the help of those that I mentioned above, certainly I would be facing difficulties while conducting this project. Thank you very much.



Nor Idatul Adawiyah Binti Abdullah Sani
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ABSTRACT

AN ANALYSIS OF PRAYER TIME BETWEEN MALAYSIA (SHAH ALAM) AND MECCA (SAUDI ARABIA) (JULAI 2010 - MARCH 2011)

Time and date are two important thing in civilization of human being on this Earth. Time is a period and date on any given day. Before the use of the time and date arranged by a regulation adopted by human being today which could recognizable in the calendar, it use a guided by the system of the Sun, Moon and Star. Among the most important rituals that involve the use of prescribed dates and times certain in life is either a prayer time that are Fajr, Dhur, Asr, Maghreb and Isha. Implementation of prayer requires knowledge of the inclusion prayer times that are linked to the sunrise and sunset. This means that, a religious prayer has a relationship that very closed with the knowledge of the position of the Sun. prayer time using a position of the Sun daily as a reference. Based on the sources from Qur'an and Hadith, prayer times are linked to the corresponding position of the Sun. The period of the Earth around the Sun takes 365.26 days to complete one cycle. The rotation of the Earth will be crossing the Sun around Aphelion and Perihelion point. These point will lead to the change in velocity of the Earth. Prayer times vary from day to day because the Sun through ecliptic that is different every day. These significant will affect the prayer times due to the shadow will changed from day to day. Malaysian latitude and longitude coordinates are $3^{\circ} 5' 0''$ N and $101^{\circ} 32' 0''$ E and latitude and longitude coordinates for Mecca is $21^{\circ} 25' 36''$ N and $39^{\circ} 49' 34''$ E. The difference this latitude and longitude affect time of prayer for different areas. If the entry of the prayer time is early, does mean the next prayer time is early too. For example, if the Dhur time is early, not necessarily Asr is early. This is because the velocity of movement of the Earth changing when crossing point of the Perihelion and Aphelion. This changes can be seen by plotting the graph of the Asr and Dhur also comparing the graph for both of this prayer time.