

**COLOUR MAGNITUDE DIAGRAM OF OPEN CLUSTER M6, M16
AND M23**

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ABSTRACT

COLOUR MAGNITUDE DIAGRAM OF OPEN CLUSTER M6, M16 AND M23

This study entitled colour magnitude diagram of open cluster M16, M6 and M23 was constructed and analyzed colour magnitude diagram for three open clusters M16, M6 and M23. These three open clusters were determined their right ascension and declination by using Planetarium Sky6 software. The observation for this project was done in Langkawi National Observatory by using robotic 50cmRC Carbon Truss Ritchey-Chrétien Telescope and the stellar images were captured by using STL 1001X SBIG CCD Camera. The images were processed and analyzed by using AIP4WIN software and by applying the technique of aperture photometry. From the colour magnitude diagram, the temperature condition of member stars of open cluster M16, M6 and M23 were determined. Besides, the stellar evolution such as main sequence stars and giant stars were recognized.

CHAPTER 1

INTRODUCTION

1.1 Background

Astronomy is the study of celestial objects such as stars, planets, comets and galaxies and the study of phenomenon in the outside of Earth's atmosphere such as cosmic radiation. The study brings a new evolution for the sciences subjects such as physics, chemistry, biology and meteorology. It also helps scientists to understand more details about the sciences occurrence and initiate them to study more specific about the sciences phenomenon such as the occurrence in the Earth's sky. The word astronomy itself means "law of the stars". This word is derived from the Greek word which is astronomia. The word astronomia is combination of two words which are astron means stars and nomos means law.

As we know, astronomy is the oldest sciences among the other sciences and it is also known as the father of sciences. The study about the space has been done by the earliest civilization such as Babylonians, Egyptians and Hindus. From the study also people get the idea to believe God. That is why; there are many religions in the history of human's civilization such as Buddha and Hindu. There are also a lot of texts based on the astronomical description such as Rig Veda and Quran.