

ACKNOWLEDGEMENT

Apart from the efforts of me, the success of any project depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this final year project.

First and foremost, I am grateful to the gods because give me strength and patience to complete the project before the due date to submit a project.

I would like to show my greatest appreciation to Dr. Mohamad Halim Bin Abd Wahid. I can't say thank you enough for his tremendous support and help. I feel motivated and encouraged every time I attend his meeting. Without his encouragement and guidance this project would not have materialized.

I would like to forward my special thanks to all lecturers for their valuable information various suggestion in improving the project and cooperation towards the success of this project.

Lastly, the guidance and support received from all friends especially Mohd ekhmal, Syamsuri, Maizon, Latty Shazana and lastly Mohd Syafiq who contributed and who are contributing to my project, was vital for the success of the project. I am grateful for their constant support and help.

APPROVAL AND DECLARATION SHEET

This project report titled Hybrid Optical Delay And Polarization Controller was prepared and submitted by Ahmad Farid Firdaus Bin Yahya (Matrix Number: 081010026) and has been found satisfactory in terms of scope, quality and presentation as partial fulfillment of the requirement for the Bachelor of Engineering (Microelectronic Engineering) in Universiti Malaysia Perlis (UniMAP).

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April 2011

KOMBINASI PENANGGUHAN OPTIKAL DAN PENGAWAL POLARISASI

ABTRAK

Kombinasi penanguhan optikal dan pengawal polarisasi adalah projek gabungan antara penanguhan optikal dan pengawal polarisasi. Optical delay adalah alat untuk mengawal kelambatan optik di dalam fiber dan polization controller pula adalah alat untuk mengawal polarisasi di dalam fiber. Projek ini di letakkan di dalam satu kotak kecil untuk menjimatkan lagi ruang tempat untuk meletakkan alat ini dan memudahkan untuk dibawa kemana - mana. Dua litar pengawal digunakan untuk projek ini supaya dapat dikawal manual dan automatik. Bagi kawalan secara manual, suis tekan digunakan di bahagian luar kotak dan menggunakan teknologi ATMEL sebagai litar pengawal. Untuk kawalan secara automatik, program didalam komputer dan menggunakan teknologi PIC sebagai litar pengawal. Project ini menjimatkan ruang dan dapat menjimatkan 5 kali ganda dari harga pasaran.

HYBRID OPTICAL DELAY AND POLARIZATION CONTROLLER

ABSTRACT

The Hybrid Optical Delay and Polarization Controller is a device that combined optical delay and polarization controller. Optical delay is a device to control the optical delay in the fiber and polarization controller is an equipment to control polarization in the fiber. The project is in a small box purposely to save more space where to put this tool and easy to carry anywhere. Two controllers circuit are used to be controlled manually or automatically. For manual control, push button switch is used on the outside of the box and employed ATMEL technology as a controller circuit. For automatic control, a computer program in the computer and PIC technology are used as a controller circuit. This project saves space and five times cheaper than the market price.

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