

MATAHARI-SHAPED WIDE-BAND BANDPASS
MICROWAVE FILTER

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**Thesis is presented in partial fulfillment for the award of the Bachelor of
Engineering (Hons.) Electrical
UNIVERSITI TEKNOLOGI MARA (UiTM)**



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ACKNOWLEDGEMENT

In the name of Allah, the Great, the Most Merciful, the Most Beneficent.

Thank to God with His help, I had successful completed this project paper. Here, I would like to express my gratitude to many people who have been enormously helpful in this project.

I would like to express my sincere pleasure to my dear advisor Dr. Mohd Khairul Bin Mohd Salleh for his guidance, advises, ideas, comments, clarification and cooperation during the project is undergoing. I also give my sincere appreciation to Siti Aminah and Aidil those who have in directly contributed their opinion and effort to realize this project successfully.

Also, I would like to convey my deepest appreciation to my family for their love, believe and their moral support while completing this project.

Last but not least to my colleagues, that helps toward completion of this final year project. Thank you very much.

ABSTRACT

A novel wide-band bandpass filter is proposed using interconnected identical quarter wavelength coupled lines that form a shape resembling the sun (*Matahari*). The symmetrical structure is found to be capable of producing very wide bandwidth beyond 80%. In this paper, a total of six half-wavelength resonators were formed by using this topology and a 4th order bandpass response is obtained. The filter is fabricated on FR-4 substrate and measured experimentally to show the feasibility of the concept.

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