

MEMBERSHIP FUNCTION OF POWER IN
MALAYSIA USING FUZZY SET THEORY

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**MEMBERSHIP FUNCTION OF POVERTY IN MALAYSIA USING FUZZY SET
THEORY**

**BY:
NOR AIDA BINTI MAT ISA**

A final year project submitted in partial fulfilment of
the requirements for the award of the degree
of Bachelor of Science (Financial Mathematics)

**DEPARTMENT OF MATHEMATICS
FACULTY OF SCIENCE AND TECHNOLOGY
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PENGAKUAN DAN PENGESAHAN LAPORAN PITA MAT 4499B

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk *Membership Function of Poverty in Malaysia Using Fuzzy Set Theory* oleh *Nor Aida Binti Mat Isa*. No. Matriks: *UK 13890* telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Matematik sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains Matematik Kewangan, Fakulti Sains dan Teknologi, UMT.

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DECLARATION

I hereby declare that this final year project entitled **Membership Function of Poverty in Malaysia Using Fuzzy Set Theory** is the result of my own research except as cited in the references.

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“MEMBERSHIP FUNCTION OF POVERTY IN MALAYSIA USING FUZZY SET THEORY”

ABSTRACT

This research aims to find membership function of poverty in Malaysia which is applied Malaysia data from the year 2000 to 2005 employed using a mixture of decomposition analysis using fuzzy set theory. The model yields the relevant indicators of poverty for each group and the relevant sub-group (areas and state) in order to identify the main forces that contribute to the overall amount of the state of poverty in Malaysia. Finally, the indicator that contributes the most amount of poverty is obtained.

ABSTRAK

Penyelidikan ini bertujuan untuk mencari keanggotaan fungsi kemiskinan di Malaysia dengan mengaplikasikan data Malaysia daripada tahun 2000 hingga 2005 menggunakan satu campuran analisis penguraian menggunakan teori set kabur. Hasil model ini menunjukkan kadar kemiskinan untuk setiap satu kumpulan dan subkumpulan (kawasan-kawasan dan negeri) dengan tujuan mengenal pasti kuasa-kuasa utama yang menyumbang kepada jumlah keseluruhan kemiskinan di Malaysia. Di akhir kajian, penunjuk yang memberikan penyumbang terbanyak jumlah kemiskinan diperolehi.