

**PREDICTING THE
MALAYSIAN GROSS DOMESTIC PRODUCT
USING SLIDING WINDOW TECHNIQUE**

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**UNIVERSITI UTARA MALAYSIA
M. Sc. (ICT) 2008**

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2008

**PREDICTING THE
MALAYSIAN GROSS DOMESTIC PRODUCT
USING SLIDING WINDOW TECHNIQUE**

**A thesis submitted to the
Division of Applied Sciences, College of Arts and Sciences
in partial fulfillment of the requirements for the degree of
Master of Science (Information and Communication Technology),
Universiti Utara Malaysia**

By

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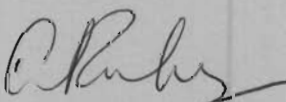
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ABSTRAK (BAHASA MELAYU)

Pertumbuhan ekonomi suku tahunan Malaysia diumumkan dua bulan selepas berakhirnya setiap suku tahun. Peserta-peserta pasaran ekonomi perlu mengetahui gelagat pertumbuhan ekonomi sebelum membuat sebarang keputusan penting. Dengan itu, mereka perlu membuat unjuran pertumbuhan ekonomi, bukannya menunggu pengumuman tersebut. Namun, teknik-teknik unjuran konvensional adalah kurang tepat memandangkan julat ralat tidak diterima. Kajian ini bertujuan mencari corak pertumbuhan ekonomi Malaysia dengan menggunakan teknik *sliding window*. Corak yang ditemui diuji dan didapati keputusan unjuran adalah meyakinkan.

ABSTRACT

In Malaysia, the quarterly economic growth is announced two months after the end of every quarter. Market players, who need to know the future behaviour of economic growth before making important business decisions, would therefore need to forecast the growth rather than waiting for the announcements all the time. However, conventional forecasting methods have flaws as the margin of error is not within the acceptable error margin. This study aims to discover patterns of the Malaysian GDP growth using sliding window technique. Discovered patterns were tested and the forecasting results are promising.

ACKNOWLEDGMENTS

I would like to express my heartfelt thanks to my supervisor, Professor Dr. Ku Ruhana Ku Mahamud, for her continuous guidance and feedback. I thank her for the assistance, inspiration and motivation to overcome the difficulties in completing the project.

Next, I would like to thank my friend Mr. Mohamed Rizwan Habeeb Rahuman, a Manager with the Central Bank of Malaysia who has granted me great assistance with data collection in numerous volumes of statistical bulletins and annual reports. I thank him for his assistance in explaining the Malaysian economic growth which made me appreciate this topic more. I would also like to thank Mr. Hui Hon Chung, former economist with the Central Bank of Malaysia, and currently a PhD student at the University of Nottingham. He has extended great assistance in explaining advanced economic theories to me and even assisted me in finding certain literature which could be easily sourced from his university's database.

I extend my gratitude to Associate Professor Dr Asan Ali Golam Hassan, Dr Nor Azam Razak, and Dr Noor Al-Huda Abdul Karrim, economics lecturers of the university. They were most kind to share and explain theories of economic growth to me, by which is their area of expertise.

In addition, I would like to thank other lecturers, librarians, course mates and friends who have in some way or other given me encouragement, motivation and assistance throughout the journey of completing this writing. Finally, I thank my family for their support and inspiration.

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LIST OF ABBREVIATIONS

ARIMA	Autoregressive Integrated Moving Average
GDP	Gross Domestic Product
IPI	Industrial Production Index
MLP	Multi Layer Perceptron
NN	Neural Network
OLS	Ordinary Least Square
SOM	Self-Organizing Map

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CHAPTER ONE

INTRODUCTION

Economic growth, indicated by Gross Domestic Product (GDP) growth is an important economic indicator. GDP is the summed value of all goods and services produced in country for a fiscal year [1]. Most traditional macroeconomics textbooks widely discuss theories which explain and predict movements in the economy in response to some stimuli. In Malaysia, the country's quarterly GDP growth is announced two months after the end of every quarter by the Central Bank of Malaysia [2].

GDP has a large impact on the whole economy of a country. When the economy is robust, businessmen and investors alike will expand their business to meet the growing economy. When the opposite happens, it means lower profit for companies. Thus, no one would want to expand their business.

As such, GDP is widely used by many parties to get an indication on how the economy is performing, for example, the government, the private sector companies and also foreign investors. By getting a rough idea of how the economy is going to perform, the above parties can make better decisions in their respective areas.

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