PREDICTING THE
MALAYSIAN GROSS DOMESTIC PRODUCT
USING SLIDING WINDOW TECHNIQUE

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USING SLIDING WINDOW TECHNIQUE

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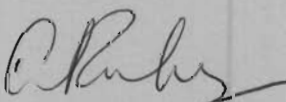*(has presented his/her project paper of the following title)*

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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

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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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