## REGRESSION RESIDUAL CONTROL CHART FOR MONITORING ACADEMIC PERFORMANCE OF STUDENTS IN HIGHER LEARNING INSTITUTION



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**NOVEMBER 2013** 

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600-UiTMKDH(PJI 5/4/1) 22 Julai 2013

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Puan

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### KELULUSAN PERMOHONAN PENUKARAN KETUA PROJEK PENYELIDIKAN DANA KECEMERLANGAN

Tajuk projek : Regression Residual Control Chart For Monitoring Academic

Performance Of Students In Higher Learning Institution

Kod projek : 600-UiTMKDH (PJI.5/4/1/33/12)

Kategori perojek : Kategori B (2012)

Tempoh : 01 Jun 2012 – 31 Mei 2013

Jumlah peruntukan : RM 1, 500.00

Ketua projek : Puan Nurazlina Abdul Rashid

Dengan segala hormatnya perkara di atas adalah dirujuk.

Adalah dimaklumkan pihak Bahagian Penyelidikan dan Jaringan Industri UiTM Kedah telah menerima permohonan daripada ketua projek penyelidikan di atas untuk mendapatkan kelulusan bagi menukar ketua kumpulan penyelidikan.

Dan dengan ini pihak Bahagian Penyelidikan dan Jaringan Industri UiTM Kedah meluluskan pertukaran ketua kumpulan penyelidikan

Sekian, terima kasih.

"Transformasi Berkualiti Ke Arah Kecemerlangan"

Yang benar

s/k

DR. MAHAZIR ISMAIL Timbalan Rektor (PJI)

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- 1)Rektor

2)Ahli penyelidik - Wan Hasni Sabariah Wan Hassan

- Wan Siti Esah Che Hussain

#### ENHANCED RESEARCH TITLE AND OBJECTIVES

#### Original Title as Proposed:

Regression Residual Control Chart for Monitoring Academic Performance of Students in Higher Learning Institution

#### Improved/Enhanced Title:

Regression Residual Control Chart for Monitoring Academic Performance of Students in Higher Learning Institution

#### Original Objectives as Proposed:

- 1. To identify the significant factors influencing the academic performance of the undergraduate students.
- 2. To develop a regression residual control chart that will help to improve and control the academic performance of the undergraduate students.

#### Improved/Enhanced Objectives:

- To determine the factors affecting students academic performance in Probability Statistics course
- 2. To develop a regression residual control chart that will help to monitor the academic performance in Probability Statistics course.

#### **CONTENTS**

| LETTER OF OFFER (RESEARCH GRANT)ACKNOWLEDGEMENTS ENHANCED RESEARCH TITLE AND OBJECTIVES |                               |    |    |                   |   |
|---|-------------------------------|----|----|-------------------|---|
|   |                               |    |    |                   |   |
|   |                               |    | 1. | EXECUTIVE SUMMARY | 1 |
| 2.  | INTRODUCTION                  | 3  |    |                   |   |
| 3.  | BRIEF LITERATURE REVIEW       | 4  |    |                   |   |
| 4.  | METHODOLOGY                   | 6  |    |                   |   |
| 5.  | RESULTS AND DISCUSSION        | 8  |    |                   |   |
| 6.  | CONCLUSION AND RECOMMENDATION | 15 |    |                   |   |
| REI   | FERENCES/BIBLIOGRAPHY         | 16 |    |                   |   |
| API   | PENDIX                        |    |    |                   |   |

#### 1. EXECUTIVE SUMMARY

#### 1.1 PROPOSED EXECUTIVE SUMMARY

Students' academic performance is an important determinant of his/her future success. The students' cumulative grade point average (CGPA) is a common measured by most universities and is a crucial factor in admission to postgraduate program and access to job markets.

Nowdays, number of students in institutions of higher learning increase every year but the quality has still to be maintained and will not be sacrifice at all means. At present, there is no system for monitoring students' performance. So, this study proposed to come up with a system to monitor students' performance. One of the critical quality characteristics used to measure the quality of a student is their academic performance.

The objectives in this study are not only to determine significant factors influencing CGPA but also to control or maintain the quality performance of the undergraduate students.

The data for this study is a secondary data which will be taken from Department of Student Affairs and Academic of Universities in northern region. To achieve our objectives in this study, the data set will be analyzed so as to suggest regression residual control chart as a dynamic model. Data analyses will be carried out using descriptive statistics and multiple linear regression technique. The control chart for individual residuals will be used to monitor the mean of CGPA. Whilst the control chart for Moving Range Residual will be used to monitor the variability of CGPA.

This study proposed to come up with a system to monitor, improve and control the quality of education. Hence, it can be implemented for institutions of higher learning.