

UNIVERSITI TEKNOLOGI MARA

**ASSESSMENT OF CDA AND
MORPHLINK-C ALGORITHMS
METHOD IN CRACK DETECTION
USING MULTIROTOR DJI
PHANTOM 3 IMAGE**

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Thesis submitted in fulfillment
of the requirements for the degree of
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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.


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ABSTRACT

The crack or façade on the building was frequently occurred where there are could bring the hazard to the people around the building. The crack also consumed a lot of construction fees to always be maintenance for long time. Unmanned Aerial Vehicle was used in various application, the technology that comes that have used in various application of disaster occurrence. Caused by the autonomous of the controlling method, the UAV was often used in monitor the building façade such as crack. With have of certain distance, the UAV can could pretend the safety of the technician and avoid any hazards. This paper was discussed about the application of UAV in crack detection by capturing the image of the damaged area. Then, the image was being processed in the photogrammetry software to produce the orthomosaic and point cloud data. These data model then was evaluated their availability of processed image to detect crack using CDA and MorphLink-C algorithms. From the result obtained, it was shows that, MorphLink-C was seems to be distinguished the crack on the building wall.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	ii
SUPERVISOR'S DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xiv
CHAPTER ONE: INTRODUCTION	1
1.1 Research Background	1
1.2 Research Gap	2
1.3 Problem Statement	7
1.4 Aim and Objectives	8
1.5 Research Questions	8
1.6 Significant of Study	9
1.7 General Methodology	9
1.8 Thesis Organization	10
1.9 Summary	11
CHAPTER TWO: LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Crack	12
2.2.1 Crack Definition	12
2.2.2 Type of Crack	13
2.2.3 Effect of Crack	16
2.2.4 Sources of Crack	17

2.3 Detect of Building Crack	20
2.3.1 LIDAR	20
2.3.2 TLS	24
2.3.3 UAV	27
2.4 UAV Application in Various Field	31
2.4.1 3D Modelling	31
2.4.2 Surveying	32
2.4.3 Monitoring	34
2.5 UAV in Monitoring Application	36
2.5.1 Landuse Changes	36
2.5.2 Plantation	37
2.5.3 Crack Detection	39
2.6 Summary	39
CHAPTER THREE: RESEARCH METHODOLOGY	40
3.1 Introduction	40
3.2 Study Area	42
3.3 Data Collection	43
3.3.1 UAV Imagery	43
3.3.2 Establishing GCP	45
3.3.3 Verification Points	47
3.3.4 Crack Measurement	47
3.4 Data Processing and Analysis	49
3.4.1 Photogrammetric Processing	49
3.4.2 CDA Algorithm	53
3.4.3 MorphLink-C Algorithm	55
3.5 Result and Analysis	56
3.6 Conclusion	56
CHAPTER FOUR: RESULT AND ANALYSIS	57
4.1 Introduction	57
4.2 Photogrammetric Processing	57
4.2.1 Images Alignment	57