UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

REDESIGN BASKETBALL SHOE SOLE BY USING BEZIER AND SAID-BALL CURVE

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TABLE OF CONTENTS

TABLE OF CONTENTS iii

LIST OF FIGURES 5

LIST OF TABLES 5

ABSTRACT 6

CHAPTER ONE 7

INTRODUCTION 7

1.1 Introduction 7

1.2 Problem Statement 8

1.3 Objectives 9

1.4 Significance of Project and Benefits of Study 9

1.4.1 Society 9

1.4.2 Company 9

1.4.3 Future researcher 9

1.4.4 Student 9

1.5 Scope of Study 9

1.6 Limitation of The Study 10

1.7 Definition of Terms and Abbreviations 10

CHAPTER TWO 11

BACKGROUND THEORY AND LITERATURE REVIEW 11

2.1 Computer Aided Geometric Design (CAGD) 11

2.2 Bezier curve 11

2.3 Said-ball curve 14

2.4 Shoe Design 16

CHAPTER THREE 17

METHODOLOGY 17
3.1 Research Activity 17
3.1.1 Flowchart 17
CHAPTER FOUR 22
RESULTS AND DISCUSSION 22
4.1 Results 22
4.1.1 The comparison of Bezier curve and Said-Ball curve 22
4.1.2 Redesign the outsole basketball shoe patterns 26
4.2 Discussion 29
4.2.1 Elapsed time taken 29
CHAPTER FIVE 31
CONCLUSION AND RECOMMENDATION 31
REFERENCES 32

ABSTRACT

Curve and surfaces design are a popular technique used in geometric design in Computer Aided Design (CAD)/Computer Aided Manufacturing (CAM). This study presents automatic outline capture of 2D object, which is particularly suitable for shoe sole since the shape of the shoe was originally a curve. The degree evaluation (DE) is used to find the optimal value for the control points of Bezier curve and Said-Ball curve. The outline of the curve for any object was usually applied in degree two and degree three of Bezier curve. Therefore, there is a need to elevate the curve of the shoe sole by using degree of Bezier and Said-Ball curves. Later the comparison between curves was done to find the best result and the best evaluation time. The process of producing outlines includes a few steps, discovering corner points and fitting the curve. Final result obtained in this study was fully automates the process and produces the best optimal results.