COMPARISON BETWEEN CUBIC BEZIER CURVE, RATIONAL CUBIC BEZIER CURVE AND RATIONAL CUBIC TIMMER CURVE WITH THE APPLICATION OF ARABIC CALLIGRAPHY DESIGN

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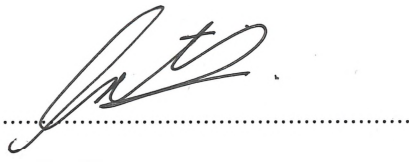
DECLARATION BY CANDIDATE

I certify that this report and the project to which it refers is the product of my work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.



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ABSTRACT

Curve plays a significance role in Computer Aided Geometric Design (CAGD) because it is easy to model any figure. Bezier curve and Timmer curve are both method that can be used to design any objects or images. In this research, three methods are proposed in order to design the Arabic calligraphy. The methods are called Cubic Bezier, Rational Cubic Bezier and Rational Cubic Timmer. Rational Cubic Bezier and Rational Cubic Timmer are easier in designing since they have an additional parameter which is weight that used to manipulate the image compare to the other method which is Cubic Bezier. Timmer curve also is an advance method to Bezier curve. However, the properties of the curve not produce the best design compare to Bezier Curve. The comparison between three method shows that Rational Cubic Bezier is the best method and able produce the best design for Arabic Calligraphy.

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