UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

REDESIGN ARABIC CALLIGRAPHY OUTLINE BY USING BEZIER CURVE AND WANG-BALL CURVE

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ABSTRACT

Curve and surfaces design is one of a popular techniques 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 font like Arabic. The degree evaluation (DE) is used to find the optimal value for the control points of Bezier curve and Wang-Ball curve. The outline of the calligraphy in Arabic outline mostly applied in Bezier degree two and degree three. Therefore, there is a need to elevate the font degree of Bezier and Wang-Ball curves. Later the comparison between curves was conducted to find the best result and the best computation running time. The process of producing outlines includes a few steps, discovering corner points and fitting the curve. Result obtained in this study was fully automated and the best optimal results were found.