The Construction of Quartic Bezier Curve with C^1 Continuity

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ABSTRACT

The primary objective of the study is to construct a quartic bezier curve with five control points that will be used in the C^1 continuity curve technique. The Bezier curve is important because it may be used to describe our everyday lives, especiallyat this point when the government is increasingly focused on advancing the economic sectors. The creative industries' crafts are given more consideration in company design to enhance the economic sectors. One of the study's main concepts is the hope that the techniques examined in this research can benefit those who work in the design business, such as the craft industry. One method used in this study to aid in the formation of industries is the construction of quartic bezier curves with C^1 continuity. This is because several shapes can be produced utilising technique C^1 continuity on the bezier curve. It opens up a lot more possibilities because there is a wide range of shape options depending on the control point selected. With a computer, there are countless shape options and significant time savings. The suggested method is to enhance the skill of the industries as time goes on as wellas the current product. For instance, there is still a mistake in flattening the curvature,especially around the lip of the bottle. The algorithm from MATLAB software willbe used to build the quartic bezier curve with C^1 continuity.

Keywords: Bezier curve, Quartic bezier curve, C^1 continuity, MATLAB