




# QUARTIC TRIGONOMETRIC BEZIER CURVE WITH A SHAPE PARAMETER

M. DUBE , R. SHARMA 

 Department of Mathematics and Computer Science, R.D. University, Jabalpur. Email: mriduladube@yahoo.com

 Department of Mathematics, Mata Gujri Mahila Mahavidyalaya, Jabalpur. Email: reenusharma6@rediff.com

## ABSTRACT

Analogous to the cubic Bezier curve, a quartic trigonometric Bezier curve with a shape parameter is presented in this paper. Each curve segment is generated by four consecutive control points. The shape of the curve can be adjusted by altering the values of shape parameters while the control polygon is kept unchanged. These curves are closer to the control polygon than the cubic Bezier curves, for all values of shape parameter. With the increase of the shape parameter, the curve approaches to the control polygon.

**KEYWORDS :** Trigonometric Bezier basis function; trigonometric Bezier curve; shape parameter.