NON-UNIFORM RATIONAL B-SPLINE CURVE MODELING USING TYPE-2 FUZZY SET THEORY

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Abstract- Type-2 fuzzy set offers an opportunity to define fuzzy control point with type-2 levels of uncertainty. This article discuss the development of non-uniform B-spline curve model base on type-2 fuzzy set theory and discuss a type-2 level of NURBS curve model. First we defined type-2 fuzzy control points and type-2 fuzzy weigh using type-2 fuzzy number. By considering type-2 point as a fuzzy control points and weigh of the model. Then, we introduced fuzzy NURBS curve model with type-2 fuzzy control points and type-2 fuzzy weigh. We discuss the model with type-2 fuzzy data points, type-1 fuzzy reduction. The defuzzification of the model will also discuss at the end of this paper.

Keywords- Type-2 fuzzy set, Type-2 fuzzy number, Type-2 fuzzy control point, Type-2 fuzzy weigh, type-2 fuzzy NURBS.