Analytical Treatment for Solving System of Fuzzy IVPs Using Residual Power Series Approach

Abstract: The aim of the present analysis is present a relatively new analytical treatment, called residual power series (RPS) method, for solving system of fuzzy initial value problems under strongly generalized differentiability. The technique methodology provides the solution in the form of a rapidly convergent series with easily computable components using symbolic computation software. Several computational experiments are given to show the good performance and potentiality of the proposed procedure. The results reveal that the present simulated method is very effective, straightforward and powerful methodology to solve such fuzzy equations.

Keywords: Fuzzy differential equations, Residual power series method, Initial value problems, strongly generalized differentiability.

Aloroud, M. H. (2017). Analytical Treatment for Solving System of Fuzzy IVPs Using Residual Power Series Approach. International Mathematical Forum,12(14): 677-691.