

A hybrid method for solving fuzzy differential equations

Abstract

This study proposes a hybrid method called Particle Swarm Optimization-Fuzzy Euler Method (PSOFEM) for solving fuzzy differential equations. The PSOFEM is obtained by embedding a particle swarm optimization technique in a fuzzy Euler scheme. Results of applying the PSOFEM to several fuzzy differential equations are presented. Final results showed that the PSOFEM is capable of generating fuzzy solutions for a large class of problems.

Keywords

Fuzzy differential equations; Fuzzy euler scheme; Hybrid method; Malaysia; Particle swarm optimisation