

عنوان مقاله:

Provide a method for approximation of the differential equation using computational intelligence

محل انتشار:

پنجمین کنفرانس ملی کامپیوتر، فناوری اطلاعات و کاربردهای هوش مصنوعی (سال: 1400)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

The purpose of this paper is to Provide a method for approximation of the differential equation using computational intelligence (CI). Function approximation is the study of selecting functions in a class that match target functions. It's a process that is useful in applied mathematics and computer science. Function approximation is often related to a markov decision process which consists of an agent and various states. Supervised learning in machine learning can be described in terms of function approximation. Neural networks are an example of a supervised machine learning algorithm that is perhaps best understood in the context of function approximation. Artificial neural networks (ANNs) have recently also been applied to solve differential equations. In this papergiven a dataset comprised of in-puts and outputs, we assume that there is an unknown underlying function that is consistent in mapping inputs to outputs in the target domain and resulted in the dataset. We then use su-pervised learning algorithms to approximate besse .functions. The results of the simulation show the high accuracy of the proposed method in function approximation

کلمات کلیدی:

approximation; differential equation; artificial neural network; Bessel functions Introduction

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