عنوان مقاله:

OPTIMIZATION OF SVM PARAMETERS BASED ON MOPSO ALGORITHM

محل انتشار:

دومین کنفرانس بین المللی مهندسی دانش بنیان و نوآوری (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسنده:

Samira Shahinifar

خلاصه مقاله:

Parameters selection of support vector machine is a very important problem, which has high influence on the performance of support vector machine.This paper presents aMulti-Objective Particle Swarm Optimization Algorithm (MOPSO) approach to optimize the kernel parameters. In thispaper, a MOPSO is designed with two conflicting objectives to be optimized simultaneously. These two objectives are based on the error rate and a ratio of number of support vectors to thenumber of instances of the dataset under evaluation. To evaluate the performance of the proposed method, experiments wereexecuted on the datasets from LibSVM (library for SVM) and the results obtained were compared with NSGAII algorithm forparameters searching. The results obtained show that the proposed approach has less error rates and vector count across some of the datasets as compared to NSGAII algorithm

کلمات کلیدی:

Support Vector Machine; Multi-Obejevtive Particle Swarm Optimization; Multi-Obejevtive Genetic Algorithm; Parameter Selection

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/553284