CAT SWARM OPTIMIZATION (CSO) FOR CLASSIFICATION

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ABSTRACT

Recently found a new algorithm optimization technique that mimics animal behavior. This new algorithm is proposed by Shu Chuan Chu (2006) and given the name Cat Swarm Optimization (CSO). This algorithm has a number of advantages in solving the problems of optimization techniques with tools such as Particle Swarm Optimization (PSO) and PSO with Weighting Factor.

In this research, CSO is applied in data mining, particularly in the case of classification. Classification technique used in this research is Multiple Linear Regression Model (MRLM) approach. In the classification MRLM approach, CSO is applied to estimate coefficients of MRLM. With the CSO developed algorithm, which can produce better classification in terms of the number of iterations required to reach the optimal point and have a better level of accuracy than the previous method.

Keywords: Cat Swarm Optimization, Classification, Multiple Regression Linear Model.