

عنوان مقاله:

SA-EVPS ALGORITHM FOR DISCRETE SIZE OPTIMIZATION OF THE ۵۸۲-BAR SPATIAL TRUSS STRUCTURE

محل انتشار:

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خلاصه مقاله:

Metaheuristic algorithms have become increasingly popular in recent years as a method for determining the optimal design of structures. Nowadays, approximate optimization methods are widely used. This study utilized the Self Adaptive Enhanced Vibrating Particle System (SA-EVPS) algorithm as an approximate optimization method, since the EVPS algorithm requires experimental parameters. As a well-known and large-scale structure, the ۵۸۲-bar spatial truss structure was analyzed using the finite element method, and optimization processes were implemented using MATLAB. In order to obtain weight optimization, the self-adaptive enhanced vibration particle system (SA-EVPS) is compared with the EVPS algorithm.

کلمات کلیدی:

.Size optimization, Self-Adaptive algorithm, SA-EVPS algorithm, ۵۸۲-bar spatial truss, discrete optimization problems

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