

عنوان مقاله:

Size and topology optimization of double layer grid structures using a hybrid gravitational search-particle swarm algorithm

محل انتشار:

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خلاصه مقاله:

In recent years, various heuristic optimization methods have been developed which can be used to solve various problem. In this article, a hybrid gravitational search algorithm (GSA) and particle swarm optimization (PSO) algorithm (HGSAPSO) are proposed to simultaneously optimize size and topology of double layer grid structures. The proposed hybrid algorithm attempts to eliminate the defects of the PSO and GSA and improve their performance. The proposed method has been compared with some well-known heuristic search methods. The obtained results confirm the high performance of the proposed method in solving various nonlinear functions.

کلمات کلیدی:

Topology optimization, size optimization of trusses, Gravitational search algorithm, particle swarm optimization

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