عنوان مقاله:

OPTIMAL DESIGN OF TRUSS BRIDGES USING TEACHING-LEARNING-BASED OPTIMIZATION ALGORITHM

محل انتشار:

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خلاصه مقاله:

In this study, teaching-learning-based optimization (TLBO) algorithm is employed for the first time for optimization of real world truss bridges. The objective function considered is the weight of the structure subjected to design constraints including internal stress within bar elements and serviceability (deflection). Two examples demonstrate the effectiveness of TLBO algorithm in optimization of such structures. Various design groups have been considered for each problem and the results are compared. Both tensile and compressive stresses are taken into account. The results show that TLBO has a great intrinsic capability in problems involving nonlinear design criteria.

کلمات کلیدی:

Bridge, truss, sizing optimization, teaching-learning-based optimization

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