

عنوان مقاله:

An innovative approach to integrate design of experiments in simulation (Case study: optimal allocation of staff in a center for medical care)

محل انتشار:

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نویسندگان:

Morteza Elahi - Faculty of Industrial Engineering, Yazd University, Yazd, Iran

Mahboobe Honarvar - Faculty of Industrial Engineering, Yazd University, Yazd, Iran

Hamed Elahi - Faculty of Industrial Engineering, Sadjad Institute, Mashhad, Iran

خلاصه مقاله:

An innovative approach to integrate design of experiments methodology in simulation of systems is presented in this paper. The proposed method can be used to evaluate and improve systems using simulation. The innovative method is designed in 5 phases and steps of each phase are determined in detail. In order to explain the steps of the innovative approach, a case study is carried out to optimally allocate staff in a center for medical care. Accordance with the innovative approach that is presented, the problem is designed, response variable and effective factors are identified and a k2 factorial design is created. After simulating the center for medical care and verifying the created model, design of experiments is conducted on the simulated model of the system to determine the effects of the factors. Finally, using the innovative approach, strategies for improving the system are found and proposed to implement in the system.

کلمات کلیدی:

component; Design of experiments; Simulation; Factorial designs; Design of experiments in simulation; Search for optimal policy

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