

## عنوان مقاله:

Economic-Statistical Design of MEWMA Control Chart Using Genetic Algorithm

## محل انتشار:

ششمین کنفرانس بین المللی مهندسی صنایع (سال: 1387)

تعداد صفحات اصل مقاله: 19

## نویسندگان:

Mohammad javad Ershadi - M.Sc student Department of Industrial Engineering, Sharif University of Technology, Tehran, Iran

Seyed Taghi Akhavan Niaki - Ph.D., Professor Department of Industrial Engineering, Sharif University of Technology

## خلاصه مقاله:

Among the multivariate control charts that are used to monitor more than one correlated quality characteristics, the multivariate exponentially weighted moving average (MEWMA) is one of the best to detect small shifts in the process parameters. Design of a MEWMA control chart to possess minimum cost and high statistical properties is one of the major tasks in multivariate quality control environments. In this paper, the economic-statistical model of the MEWMA chart is considered and a genetic algorithm (GA) method is proposed to solve the model. Then, the results of the proposed method are compared to the ones of an existing method through simulation study. The results show that while the optimal solutions are different, identical costs are obtained in an easier way with less effort. At the end, a sensitivity analysis and some practical results are presented.

## کلمات کلیدی:

control chart, Economic- Statistical Design, MEWMA, Genetic Algorithm

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/58789>

