

Accepted Manuscript

Title: An integrated logarithmic fuzzy preference programming based methodology for optimum maintenance strategies selection

Authors: Yawei Ge, Mingqing Xiao, Zhao Yang, Lei Zhang, Zewen Hu, Delong Feng



PII: S1568-4946(17)30432-5
DOI: <http://dx.doi.org/doi:10.1016/j.asoc.2017.07.021>
Reference: ASOC 4349

To appear in: *Applied Soft Computing*

Received date: 11-1-2017
Revised date: 21-6-2017
Accepted date: 9-7-2017

Please cite this article as: Yawei Ge, Mingqing Xiao, Zhao Yang, Lei Zhang, Zewen Hu, Delong Feng, An integrated logarithmic fuzzy preference programming based methodology for optimum maintenance strategies selection, *Applied Soft Computing Journal* <http://dx.doi.org/10.1016/j.asoc.2017.07.021>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title: An integrated logarithmic fuzzy preference programming based methodology for optimum maintenance strategies selection

Authors: Yawei Ge, Mingqing Xiao, Zhao Yang, Lei Zhang, Zewen Hu, Delong Feng

E-mail addresses: vvrues11@163.com (Y.W. Ge), xmqing@sohu.com (M.Q. Xiao)

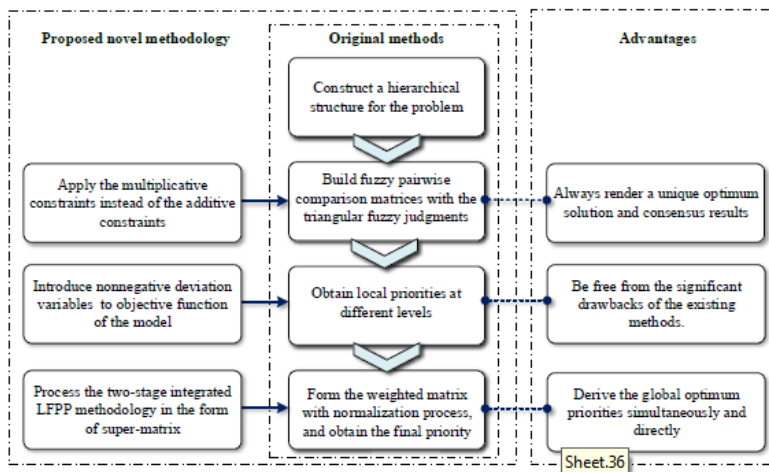
Affiliation: Aeronautics and Astronautics Engineering College, Air Force Engineering University. No. 1 Baling Road, Baqiao district, Shannxi Xi'an, 710038, P. R. China

***Corresponding Author:** Yawei Ge

E-mail: vvrues11@163.com

Telephone: +86 (29) 8478 7142

Graphical abstract



Highlights

- A logarithmic fuzzy preference programming based methodology is proposed to solve the optimum maintenance strategies selection problem.
- Both qualitative and quantitative data is utilized in the methodology.
- The methodology is free from the significant drawbacks of the existing methods with applying multiplicative constraints and deviation variables to process the upper and lower triangular fuzzy judgments.
- The methodology is proved to render a unique optimum solution and consensus results.
- The methodology processes the global comparison matrices simultaneously and directly to derive the optimum priorities in the form of super-matrix.

Abstract: Selecting optimum maintenance strategies plays a key role in saving cost, and improving the system reliability and availability. Analytic hierarchical process (AHP) is widely used for maintenance strategies selection in the Multiple Criteria Decision-Making (MCDM) field. But the traditional or hybrid AHP methods either produce multiple, even conflict priority results, or have complicated algorithm structures which are unstable to obtain the optimum solution. Therefore, this paper proposes an integrated

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات