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Authors: Fahem Moussaoui, Marzouk Cherrared, Mohand Akli Kacimi, Rafik Belarbi



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## **A Genetic Algorithm to optimize consistency ratio in AHP method for energy performance assessment of residential buildings – Algerian case study**

Fahem Moussaoui<sup>a,\*</sup>, Marzouk Cherrared<sup>b</sup>, Mohand Akli Kacimi<sup>c</sup>, Rafik Belarbi<sup>d</sup>

*<sup>a</sup>Département de Génie Civil, Faculté de Technologie, Université de Bejaia, 06000 Bejaia, Algérie.*

fahmoussaoui@gmail.com / fahem.moussaoui@univ-bejaia.dz

*<sup>b</sup>Faculté de Génie Civil, Université des Sciences et de Technologie HOUARI BOUMEDIENE, BP 32 El Alia, Bab Ezzouar, Alger 16111, Algérie.*

mcherrared@usthb.dz

*<sup>c</sup>Laboratoire de Technologie Industrielle et de l'Information LTII, Faculté de Technologie, Université de Bejaia, 06000 Bejaia, Algérie.*

makacimi@yahoo.fr

*<sup>d</sup>LaSIE, UMR 7356-CNRS - Université de La Rochelle, Avenue Michel Crépeau, 17042 La Rochelle, France.*

rafik.belarbi@univ-lr.fr

### **Research Highlights**

- Analysis and presentation of the energy situation in Algeria.
- Analysis and selection of performance indicators “PIs” and development of a methodology for energy performance assessment of residential buildings in Algeria;
- Proposition of an optimization for AHP weighting method basing on the optimization of the decision matrix (or of the consistency ratio) using genetic algorithms;
- Assessment of energy performance level of residential buildings in Algeria using the proposed methodology.

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