Environmental Engineering and Management Journal xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu

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ENERGY EFFICIENCY INTO DESIGN STAGE FOR SUSTAINABLE BUILDING IN ALGERIA: AN INTERDISCIPLINARY APPROACH

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Abstract

Energy efficiency has been a pivotal subject in sustainable construction since the inception of engineering projects, as it encompasses architectural strategies like project orientation and compactness. This study employs an interdisciplinary approach to analyze how architects incorporate these factors into the building design process. The interaction of political, managerial, and technical dimensions' dictates energy decision-making. A quantitative survey of 256 architects in Algeria was conducted as a case study to ascertain specific Transition Energy challenges. The aim is to examine their involvement regarding the national and international contexts of energy efficiency, their assessment of architectural and technical solutions for performance improvement, and management constraints to finally formulate a set of guidelines for the incorporation of energy efficiency into architectural design.

Key words: building design, energy decision, energy efficiency, energy transition, sustainable building

Received: March, 2023; Revised final: January, 2025; Accepted: January, 2025

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