الأبحاث المقدمة للترقية لدرجة / أستاذ
ملخصات الأبحاث باللغة العربية / الإنجليزية

الإسـم : محمد عبد الفتاح أحمد العيسوي الكلية : الهندسة ـ قسم الهندسة المعمارية الجامعة : جامعة الفيوم
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Environmental Assessment Of The Egyptian Building Law
Environmental Impact Study of the Residential Building's Law in Egypt

ABSTRACT

Egypt seeks to govern urbanization by issuing many planning laws to increase the efficiency of urban communities. The proposed amendments to the Building Law are considered one of the most important legal studies during these days.

The research focuses on analyzing and evaluating the environmental impact of applying amendments on the average energy consumption in residential buildings, whether negatively or positively. In addition to some proposed amendments, which the research recommends be included in the amendments.

Research Methodology depends on the inductive approach by studying the laws for the housing unit's design, which include the Building Law No. 119 of 2008, the planning and building requirements for Egyptian cities 2020, the Egyptian Code for Energy in Buildings, and the Egyptian code for ventilation in buildings.

The second part depends on the applied approach by proposing the residential model for the applied study and using the environmental simulation programs (design builder and energy plus) to measure the effectiveness of the proposed design variables (building height, distances between opposite buildings, external shades, components of the building's external envelope, openings and courtyard) on the energy consumption of the residential building.

The results of the study indicate that the modification of the building law with the new requirements (2020) has a positive effect on the building's energy saving compared to the case of applying the building law. The modifications achieve 4% in energy savings for the courtyard, 14:17 % for the cantilevers, and 12:16 % for the relationship between road width and the building height.