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

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التخصص: التصميم والتحكم البيئي

Towards an updated guide for the standards of designing contemporary residential buildings according to the principles of bioenergy to combat the effects of electromagnetic pollution

ABSTRACT

The successive development in the fields of science and technology has a positive impact on the quality of life, however, we cannot ignore the harmful effect accompanying this development of the accumulation of a huge amount of electromagnetic fields and radiations, which led to what known as "electromagnetic pollution" and also resulting from the imbalance in the environmental and biological balance in general. The medical studies and research monitor the increasing number of patients with (tumors - blood - cells - psychological) during the last three decades and clarifies the effect of these harmful electromagnetic fields on the health. The problem of the research paper is to "vanish/neutralize/reduce" the harmful effect of these electromagnetic waves to improve the quality of architectural and urban spaces from the perspective of bio-geometry in integration with achieving vital and thus psychological comfort within the architectural space, the research begins with residential buildings, as residential buildings represent more than (55%) of the built urban environment and people spend more than (10 hours) a day in them. The research aims to develop a guide for the concept, considerations and standards for designing contemporary housing in accordance with the principles of bioenergy engineering, and in a manner that takes into account the minimum health standards required globally to avoid the negative impact of electromagnetic energy in the biosphere on users. The results of the research indicate the possibility of "vanishing / neutralizing / reducing" (35:45%) of negative electromagnetic energy inside different residential spaces by following alternatives to a new spatial design module that the study reached that is compatible with the electromagnetic networks present in the biosphere. The percentage of this reduction of negative energy inside the space can also be increased to reach (75:70%) through the internal distribution of furniture in the points of intersections / paths of negative electromagnetic energy. The study also reached a number of design considerations and standards for urban spaces, architectural mass, elements of the internal space and finishing materials in a way that enhances the bioenergy efficiency of the internal space.