

Dedication:

This research dedicated to people who guide me to manage my life:

At first I dedicate this research to my sprit father my grandfather Mahgoub who guide me when I was young.

Dedicate this research my mother the person who burns to give me light to see the right way.

Dedicate this research to my father who gives me outlines to be good architect.

Dedicate this research every person guide me in this life my school teachers my university tutors and doctors.

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1-1-abstract

-Building use energy and resources and generate waste on huge scale. Current construction methods tie us in to future pattern of resources and energy use, waste and environmental damage. When architectural design is poor this point has side effects to environment and economic. One of key goal of this research reduction of carbon emissions by using sustainable materials this is an important aspect in sustainable design. Climate change and pollution has an impact in life style and sustainable design treats these factors to achieve to comfort life. Architect role is central to building design process, energy efficiency and environmental friendly buildings.

-Energy management is one of important factors in architectural design and sustainable design reduces energy that used in building operation.

-Sustainable design use construction technology and materials that help the architect to reduce energy use and waste.

Sustainable architecture is architecture that utilizes environmentally design techniques Sustainable architecture is framed by the larger discussion of sustainability and the pressing economic and political issue of our world.

The idea of sustainable design is ecological design.

-To achieve to comfort zone sometimes using air-conditioning and mechanical ventilation in addition to artificial lighting those need energy, sustainable design gives solutions to net zero energy and low energy use. Research objective resources conservation and comfortable internal environment and reduce pollution by using renewable sources of energy, water efficiency and use sustainable materials.

Methodology of this research is result of professional practice in eco buildings in addition to that case study city of sustainable design is a center uses sustainable design elements in consideration –LEEDS points more over its research center and show rooms for sustainable design building equipment's. The conclusion and recommendation for this research environmental design for buildings that have economic impact by reducing the running cost for the building with considering resident of the building in comfort zone with little energy or with zero energy building by use energy of the future and sustainable materials and water recycling system.

المباني تستهلك الطاقة والموارد كما تولد نفايات على نطاق واسع، طرق البناء الحالية تفوق لنا في المستقبل إلى نمط من إستهلاك الموارد وإستخدام الطاقة والنفايات والأضرار البيئية عندما يكون التصميم المعماري ردي، بسبب ذلك مشاكل بيئية وإقتصادية. واحد من الأهداف الرئيسية لهذا البحث تقليل إنبعاثات الكربون بإستخدام مواد صديقة للبيئة وهي عنصر أساسي في التصميم المستدام. دور المعماري محوري في سير عملية التصميم بين فعالية إستخدام الطاقة وخلق مباني صديقة للبيئة. إدارة الطاقة واحد من أهم العوامل في التصميم المعماري والتصميم المستدام يقلل من الطاقة المستخدمة في تشغيل المبنى. التصميم المستدام يقلل إستخدام الطاقة بإستخدام تقنيات تشيد مواد صديقة للبيئة كما تعمل على تقليل النفايات. التصميم المستدام هو الذي يوظف تقنيات التصميم البيئي. التصميم المستدام يأطر النقاش الكبير حول الإستدامة ويشكل ضغط إقتصادي وبيئي في عالمنا. فكرة التصميم المستدام هو التصميم البيئي. للوصول إلى الراحة الحرارية نستخدم التكييف والتهوية الميكانيكية بالإضافة إلى الإضاءة الصناعية وكلما تحتاج إلى طاقة، والتصميم المستدام يعطي حلول لإستخدام طاقة خالية من الإنبعاثات الكربونية أو التقليل من إستخدام الطاقة. الغرض من البحث التحكم في الموارد وخلق بيئة مريحة داخل المبنى وتقليل التلوث بإستخدام مصادر الطاقة المتجددة بالإضافة إلى الأستخدام الفعال لمورد المياه إستخدام مواد مستدامة. منهجية البحث نتيجة لخبرة عملية في تصميم المباني البيئية بالإضافة إلى دراسة حالة مدينة التصميم المستدام حيث يلبي هذا المركز عناصر التصميم المستدام واضعا في الإعتبار نقاط (ليدز) بالإضافة إلى أنه مركز للبحوث إلا أنه يحتوي على حالات عرض لمتطلبات تصميم المباني المستدامة .

الغاية والتوصيات لهذا البحث تصميم بيئي للمباني حيث له أثر بتقليل تكلفة تشغيل المبنى مع الأخذ في الأعتبار أن قاطني المبنى في راحة حرارية بإستخدام قليل للطاقة أو بإستخدام طاقة خالية من إنبعاثات الكربون طاقة المستقبل وإستخدام مواد متجددة وتدوير المياه .

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