



## UOB-IEASMA-126: Design of HVAC System for Electrical Room, Saudi Arabia

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### Abstract

Today the air conditioning design field is more technically complicated than ever before. While design innovations and product improvements promise sleeker, more versatile, more powerful and more energy efficient air conditioners, the challenge today lies in identifying the most appropriate Energy Efficient product, or by products, for the usages at the other hand. Indeed, today the emphasize is no more on understanding air conditioning "products but on creating solutions and not just solutions but customized Energy Efficient solutions that suit specific cooling needs of specific establishments and business. The consultant or designer who understands the dynamic of the client business is more likely to offer better long-term solutions than one who does not. No one contradicts on the fact that man work effectively in conductive environments. The emergence of HVAC field made it possible to maintain himself in comfort zone with the thermal environment irrespective of seasonal variations within his surroundings. It is the cost and degree of comfort that determine to what extend the function of air conditioning is needed. Every air conditioning application has its own special needs and provides its own challenges College Building Airports, Hotels shopping mall Office complexes and Banks need uniform comfort cooling in every corner of their sprawling spaces and activities involving computer Electronics, secret products precession manufacturing communication network and operation in hospitals, in fact many areas of programming would come to a halt, so air conditioning is no longer luxury but an essential part of modern living. To provide human comfort while working it is very essential to maintain steady temperature at the working places.

Keywords: HVAC, Electrical Energy, Numerical Investigation, Heat load Calculation

### Introduction

The HVAC systems are playing delight role in and around the world. Heating Ventilation Air