



## Investigating Warm and Humid Climate with the Approach of Production of Quantitative and Qualitative Architectural Models

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### Abstract

Climate change is one of the most significant threats facing the world today. Buildings are one of the largest energy consuming sectors in the world. Most contemporary buildings are highly dependent on air conditioning systems and electricity, reliant on fossil fuels and increasingly unable to adapt to a warming climate. Iran's hot and cold climatic regions are vast. With the advancement of technology, life in every weather condition is possible. Humans can provide living conditions. Passive design responds to local climate and site conditions in order to maximize the comfort and health of building users while minimizing energy use. The key to designing a passive building is to take best advantage of the local climate. Passive cooling refers to any technologies or design features adopted to reduce the temperature of buildings without the need for power consumption. Today been proven that seasonal fossil contamination causes irreparable damage to our planet's ecosystem, which is the result of global warming. According to studies conducted so far, the use of clean fuel cannot alone meet our needs in severe weather conditions. Eco-friendly architecture helps to save energy by avoiding energy losses. In this paper, with the careful analysis of weather information in Dezful, computer software solutions provide architectural solutions that can be measured and can be applied to each of the suggested patterns as Checked a number. Gaven Comfort conditions in this city without any static and dynamic system is 17.7% of the year, which can be increased by 78.8% of the year using static systems.

*Keywords:* Comfort Conditions; Climate; Climate Design; Energy Dissipation; Climate Approach.

### 1. Introduction

Global warming is one of the most critical components of environmental degradation. Global temperature which has risen by over 0.7°C in the last 300 years is predicted to rise by up to 8°C by 2050 in the worst global warming scenario (IPCC, 2007). The building sector is one of the major energy consumers in the world. The proportion of total energy use attributable to buildings generally ranges from 10 - 15% in undeveloped countries to more than 40% in the developed countries.

Recently, the risks of global warming and the depletion of fossil fuels have required reductions in energy consumption in many countries [1]. The building sector is one of the largest economic sectors worldwide; it generally accounts for one-third of the global energy consumption and leads to a significant amount of greenhouse gas emissions [2]. Due to population growth, increased urbanization, and improvements of living standards, most of the energy-consuming buildings will be located in urban centers of the developing world. The depletion of energy resources and the risk of climate change require a sustainable development path based on renewable sources of energy and energy efficiency [3].

In Iran statistics show that buildings account for about 39% of total energy consumption (IFCO, 2007). According to a report in "The 2nd conference of Fuel Conservation in Buildings" in Tehran (2003), the amount of energy consumed

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