DESIGN OF SOLAR WATER AND SPACE HEATING FOR A BUILDING

by

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INTRODUCTION

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As the year 2000 is approaching people all over the world are talking about shortage in fuels and that other sources of energy must be found.

One source of energy that cause a lot of interest among the scientists is the solar energy because is the most plentyful energy that there is today and is also free.

Solar energy is the world's most abundant permanent source of energy.The ammount of solar energy intercept by the earth is 170 trilion KW , an ammount 5000 times greater than the sum of all other inputs (terrestrial nuclear , geothermal and gravitational energies and lunar gravitational energy).

Solar radiation had only early practical use as a drying agent for foods , in the dehydration of sea water to obtain salts and in the distillation of sea water.

Many studies have been made on how to collect and store the solar energy and for the past 25 years scientists all over the world are trying to design better collective mediums in

order to collect more solar energy as possible.The most common collective medium today is the flat plate collector.Also are different ways for better storage of the solar energy.

Since solar energy is available only during daylight hours and during periods when the sun is not significantly obscured by clouds an auxiliary energy must be used to the system when there is insufficient solar energy to supply the heat requirements of the building.

Solar energy can be utilized for heating of buildings by placing flat plate collectors by either on the roof or the side of the building.Collectors are fairly simple in construction.A black surface is used to absorb the sun light.This surface is covered with one or several planes of glass which reduce radiation.

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