عنوان مقاله:
A New Method for heating and cooling of buildings: Ground-Source Heat Pumps systems

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خلاصه مقاله:
Heating, Cooling and ventilation consumes the main part of energy in a building. Nowadays, modern heating systems are going to be more popular in comparison to conventional ones. A heat pump can be an efficient alternative to a standard home heating system. Moreover, during the cooling season, its function can be reversed, and it becomes an air conditioner. Because of restrictions according to fossil energy resources usage, using of renewable energies (such as solar, wind and geothermal) for heating or cooling of a building is an appropriate alternative. Renewable energies are free, clean, interminable and easily accessible everywhere. Cooling buildings using ground-source heat pump systems (also known as geothermal heat pumps) are becoming more and more popular. Typically, ground-source heat pump systems cost twice as much as conventional heating and cooling systems as a result of the cost of the outside piping to install but cost three to four times less to operate. In this paper we investigate aspects of this new technology.

کلمات کلیدی:
heat pump, Ground-source, Geothermal energy, HVAC, Renewable energies.

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