

46 A Study And Implementation of an Automated and Integrated System to Support Home Electrical Power and Heating.

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46.1 Abstract

Nowadays the energy problem has peaked. The essence of the problem lies in the correlation between continuously decreasing energy reserves with continuously increasing energy demands. The current thesis presents an automated water heating system powered by the sun via a solar tracker that aims at heating not just running water but also the whole residence through underfloor heating. The system is capable of rotating its collectors, so that when the desired water and room temperature has been achieved, it can additionally produce electrical energy by means of polycrystalline silicon photovoltaic panels.