THE ECONOMICAL ANALYSIS OF A 5.9 KW PHOTOVOLTAIC AGRICULTURAL IRRIGATION SYSTEM IN KAHRAMANMARAS CONDITIONS

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Solar energy applications are more widely used in Turkey day by day. Kahramanmaraş, which is a productive area in terms of solar energy, is a new centre of attraction for investments. One of the fields in which solar energy is successfully used is agricultural irrigation systems. This study focuses on the modelling, performance and economic analysis of 5.9 kW photovoltaic agricultural irrigation system installed in Kahramanmaraş. The evaluation of irrigation system in terms of the data on Kahramanmaraş's annual climate conditions is followed by the detailed modelling and system analysis along with profit-loss calculations.