A RESEARCH ON PARABOLIC TROUGH SOLAR COLLECTOR SYSTEM CONTROL BASED ON HEDGE ALGEBRA

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This paper presents a new method in controlling a parabolic trough solar collector system to improve the efficiency of the solar-to-thermal energy. It is designing an intelligent pre- processor using Hedge Algebra algorithm to calculate the setpoint for the control loop, in which besides the information about the trajectory calculated by a software, wind speed and fluid temperature of the collector are included. Moreover, this paper introduces a new simple flexible calculation tool which enables to calculate with a higher accuracy.