

## Home Legacy Device Output Estimation Using Temperature and Humidity Information by Adaptive Neural Fuzzy Inference System

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**Abstract :** Home energy management system (HEMS) has been issued to reduce the power consumption. The HEMS performs electric power control for the indoor electric device. However, HEMS commonly treats the smart devices. In this paper, we suggest the output estimation of home legacy device using the artificial neural fuzzy inference system (ANFIS). This paper discusses the overview and the architecture of the system. In addition, accurate performance of the output estimation using the ANFIS inference system is shown via a numerical example.

**Keywords :** artificial neural fuzzy inference system (ANFIS), home energy management system (HEMS), smart device, legacy device

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