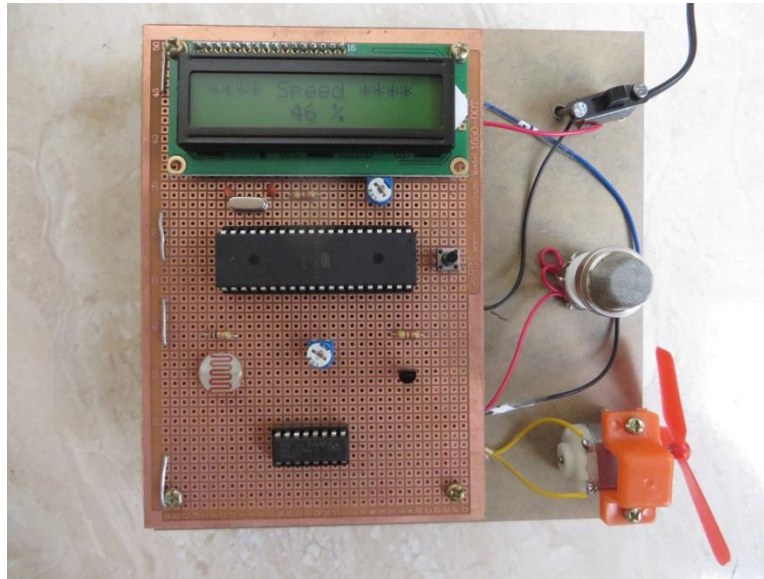


AutoFanSys

Automatic knowledge-based fan system



AutoFanSys is an automatic knowledge-based smart fan system that uses the Analytic Hierarchy Process (AHP) and a fuzzy interference system for performing the intelligent operations. The system is equipped with appropriate sensors to acquire ambient temperature, gas, and light data. The AHP component and fuzzy inference system determine the speed of the fan efficiently and intelligently. The simulation results verify that the energy consumption of the smart system is nearly 35% less than that of the non-smart system. In addition, comparisons with some other existing fan systems show the energy efficiency of the proposed fan system. The prototype of the proposed system is built to observe the simulation performance and effectiveness via experiments.