

SMART HVAC SYSTEM

*Jenny Vi Raymundo, Edsel Conrad Sabulao, Evan Vidal Sagge,
Charles Joseph Uy, Jeffrey Zamora, Tristan Calasanz and Carlos Oppus*

ECCE Department, Ateneo de Manila University

ABSTRACT

This project aims to develop an HVAC (heating, ventilating and air conditioning) system that can be automatically controlled to deliver an atmospheric condition which is comfortable and healthful to the human body. In particular, three atmospheric factors (outside air temperature, the room's relative humidity, and the relative air velocity) are used to determine a comfortable indoor temperature. A sensor for each of these factors is developed and interfaced to a PC. A control system is interfaced to the HVAC unit. A program is also developed which analyzes sensor readings using the Predicted Mean Vote system to determine the comfort temperature. The system controls the HVAC unit by automatically regulating the HVAC's compressor.