

# Smart Fan using IOT

**Prof. Minakshi Gatkar<sup>1</sup>, Prathmesh Shriram<sup>2</sup>, Yash Madavi<sup>3</sup>, Yogesh Madhare<sup>4</sup>, Shagun Yedulwar<sup>5</sup>**

Professor, Department of Computer Science & Engineering<sup>1</sup>

Students, Department of Computer Science & Engineering<sup>2,3,4,5</sup>

Rajiv Gandhi College of Engineering, Research & Technology, Chandrapur, Maharashtra, India.

**Abstract:** *When it is hot, using a fan is an inexpensive choice compared to spending more on using an air conditioner especially in some areas where high temperature is naturally normal. Some problems, nonetheless, arisen such as users forget to turn off when being away, some people might get a feeling of annoyance and perhaps frustration when getting up from the seat in order to adjust the speed. These result in a rise of electricity bill from leaving the fan on when it is not in use and it may cause disasters, fire for example, when the motor get heated up. A prototype of smart fan was built in this research using ESP8266 as a microcontroller, DHT22 and KY-038 are used to measure temperature for speed control and detect the user for automatic on/off and speeding respectively. A group of participants used the prototype and they were interviewed to give some feedbacks, comments, and suggestions from the experiences after using it. The results show that they were satisfied from the automation; it gave the sense of staying in a modern house with an automatic wind blower. It also assisted to reduce energy consumption according to target group. Some users stated that the environment and atmosphere in the room was not too hot because the fan was working in the background. This has shown that the prototype significantly gave the participants a feeling of relaxation and comfortability and also was a part of energy and cost reduction*

**Keywords:** Fan, IoT

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