UNIVERSITI TEKNOLOGI MARA

DESIGN AND FABRICATION OF SMART AIR PURIFIER AND HUMIDIFIER USING WATER BASED FILTER

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ABSTRACT

Lately air pollution has crossed all bounds till this year. WHO (World Health Organization) estimates that up to seven million people die every year from exposure to polluted air. To counter this issue, an air purifier and humidifier that only uses water as an air filter is fabricated. An air purifier is a device that removes contaminants from the air in a room to improve indoor air quality. Through several studies and research, the main problem found is that many people can't afford to buy an air purifier which does cost quite expensive. Therefore, an affordable air purifier that uses a non-expensive filter was developed. This device also acts as a humidifier as it can kill bacteria and viruses present in the air. The process of fabricating this air purifier starts with designing the air purifier using water as the main function for purifying the air. The device, designed to improve air quality, operates by pulling in indoor air, passing it through water to trap contaminants, and then releasing clean air. With this newly developed air purifier, the main objectives of this project was obtained which to develop a low-cost air purifier as well as to provide better indoor air quality for people. In essence, the air purifier is a cost-effective solution for combating air pollution, particularly benefitting those with respiratory issues like asthma.

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