

# Air Pollution Detection using Embedded System

Mrs. Jeevn Musle, Pranav Kharat, Shivraj Nimbalkar, Vishvtej Bhosle

SVERI's College of Engineering Pandharpur, India

**Abstract:** *Smart cities are growing as a crucial area of research on an international level; they improve infrastructure to address issues brought on by the high rate of development. With Arduino's assistance, this system is cheap and simple to construct, and it operates relatively efficiently in locations with medium traffic. The public plays a significant role in deciding on policies to fight air pollution. To encourage public recognition of the duty and some form of action is a crucial role in any society.*

*The studies determined the pollution level; if the level exceeds the permissible level, a decision is made to notify the authorities, who can use this information to plan preventive actions and take steps to halt the ongoing negative effects of air pollution and prevent the evolution of developments in technology are beneficial to us; in our current surroundings, air pollution monitoring systems play an important role since they directly affect our daily lives. The government determines the acceptable emission limits in accordance with Bharat Stage standards. The level of a vehicle's emissions rises as a result of incorrect maintenance. The owner of the car will be warned of the dangerous levels of pollution when the emission levels of the vehicle grow. There will be emissions from every car. Emissions cannot be totally avoided, but they may be tracked and managed with the use of an embedded pollution detection system. In order to provide some insightful ideas for the sustainable growth of urban traffic, it focuses on learning some achievable strategies for managing and effectively reducing urban traffic pollution.*

**Keywords:** *air pollution*

## REFERENCES

- [1]. H. Chourabi, T. Nam, S. Walker, J. R. Gil-Garcia, S. Mellouli, K. Nahon, et al., "Understanding smart cities: an integrative framework", 45th Hawaii International Conference on System Sciences, Jan. 2012. Publisher: IEEE
- [2]. K. Gupta and R. P. Hall, "The Indian perspective of smart cities", Smart City Symposium Prague (SCSP), May 2017.
- [3]. Y. Mehmood, F. Ahmad, I. Yaqoob, A. Adnane, M. Imran and S. Guizani, "Internet-of-Things-Based Smart Cities: Recent advances and challenges", IEEE Communications Magazine, vol. 55, no. 9, pp. 16-24, 2017.
- [4]. S. B. Sharma, S. Jain, P. Khirwadkar and S. Kulkarni, "The effects of air pollution on the environment and human health", Indian Journal of Research in Pharmacy and Biotechnology, vol. 1, no. 3, pp. 391-396, May-June 2013.
- [5]. A. Zanella, N. Bui, A. Castellani, L. Vangelista and M. Zorzi, "Internet of Things for Smart Cities", IEEE Internet of Things Journal, vol. 1, no. 1, pp. 22-32, Feb. 2014.
- [6]. F. K. Shaikh, S. Zeadally and E. Exposito, "Enabling technologies for green Internet of Things", IEEE Systems Journal, vol. 11, no. 2, pp. 983-994, June 2017.
- [7]. R. L. Baggam, "Smart City with Internet of Things", International Journal of Advanced Research in Computer Science, vol. 8, no. 5, pp. 1242-1245, May – June 2017.
- [8]. A. R. Al-Ali, Imran Zualkernan and Fadi Aloul, "A Mobile GPRS-Sensors Array for Air Pollution Monitoring", IEEE Sensors Journal, vol. 10, no. 10, pp. 1666-1671, Oct. 2010.
- [9]. M. Ibrahim, A. El-Zaart and C. Adams, "Smart sustainable cities roadmap: Readiness for transformation towards urban sustainability", Sustainable Cities and Society, vol. 37, pp. 530-540, February 2018.
- [10]. Simon E. Bibri, "The IoT for smart sustainable cities of the future: An analytical framework for sensor-based big data applications for environmental sustainability", Sustainable Cities and Society, vol. 38, pp. 230-253, April 2018.