

## Special Issue

# AirGuard: Advances in Air Quality Monitoring, Assessment and Control

### Message from the Guest Editors

It is a well-established fact that the quality of the air that we breathe has an impact on our overall health, either directly or indirectly. Both short- and long-term air quality monitoring, using various techniques and protocols, have become of paramount importance, forming part of a comprehensive assessment of the environmental quality. It is hoped that this Special Issue will encourage and attract interest from seasoned experts in the field, as well as younger scientific researchers. Additionally, we welcome contributions that explore the integration of Artificial Intelligence and Machine Learning to enhance air quality monitoring and analysis. In this Special Issue articles, short communications, and technical notes pertaining to original research, as well as reviews, are all welcome. Research areas may include but are not limited to:

- Urban air quality modelling and monitoring;
- Air pollution data analysis;
- Use of artificial intelligence and machine learning techniques in air quality studies;
- Emission and dispersion of air pollutants;
- AI-driven air quality monitoring systems;
- Integrating air pollution and climate change models using AI.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 November 2025)



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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