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Editorial Overview of the Special Issue "Air Quality Monitoring for Smart Cities and Industrial Applications"

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The Special Issue entitled "Air Quality Monitoring for Smart Cities and Industrial Applications" addresses the pressing concern of environmental pollution, particularly air pollution, and its impact on global well-being. The primary focus is on monitoring air quality, which is pivotal for combating air-related health issues, such as obstructive pulmonary diseases, cardiovascular illnesses, lung cancers, asthma, or lower respiratory infections [1,2].

This Special Issue examines gaseous compounds released from industrial plants, considering the challenges posed by strict government regulations, trying to contain pollution that nowadays is felt as a global burden [3]. The concept of circular economy is being correctly forced into our daily lives, especially in manufacturing activities [4]. This is why humans are trying to reduce the generation of solid, liquid, and gaseous waste.

Therefore, the significance of investing in air quality research is emphasized, covering indoor and outdoor monitoring systems, pollution-related health reviews, and pollution's connection to human health. Specific themes include gaseous waste treatment, air quality monitoring equipment development, analysis of outdoor air quality and industrial emissions, and indoor air quality assessment in inadequately ventilated spaces. The impact of air pollutants on health, especially during the COVID-19 pandemic, is also explored.

Papers published within this Special Issue include research that developed a network of low-cost sensors to monitor PM2.5 particulate matter in Temuco City, Chile, assessing spatial and temporal air quality variations [5]. Another paper explores the evolution of research trends in ozone formation sensitivity using bibliometric analysis [6]. Among the studies presented in this issue, there is one that reports a crowdsensing-based vehicle sensor network system for real-time monitoring of urban PM levels, discussing its cost-effectiveness and benefits [7]. The impact of poor indoor air quality on work efficiency is examined through a case study of PM2.5 levels in a large shopping mall in Macao [8].

Moreover, the research delves into aircraft emissions within Spain's domestic aviation market, emphasizing the importance of balancing economic profitability and environmental impact [9]. In the aims of sustainability, nowadays it is fundamental to satisfy simultaneously the conditions of profitability, environmental impact, and social impact. Only after balancing these three conditions can we address our research efforts to the path of global Earth sources regeneration.

The effects of the COVID-19 lockdown measures on criteria pollutants are analyzed, particularly in relation to Australia's prescribed burns during the first worldwide lockdown period due to the COVID-19 pandemic illness [10]. A study focuses on blood heavy metal absorption in areas with varying environmental impacts, assessing the connection between air quality and health [11]. An investigation predicts PM2.5 concentrations using multi-time scale fusion, contributing to environmental protection efforts [12]. The global burden of disease due to air pollution is assessed, revealing trends in disease attribution over the

years [13], revealing the same problems all over the world [14]. Additionally, research simulates the spread of the novel Coronavirus in an aircraft cabin [15] and in other different transportation moods [16], highlighting infection risk.

In summary, this Special Issue addresses the multifaceted aspects of air quality monitoring, pollution's effects on health, and the potential implications for policy and public awareness. The published papers delve into various facets of air quality, pollution sources, monitoring technologies, and health impacts, aiming to contribute to a deeper understanding of these critical environmental and health issues.

Conflicts of Interest: The authors declare no conflict of interest.

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