Message from the Guest Editors

Dear Colleagues,

Development in the field of gas sensors has witnessed exponential growth, with multitude of applications. These diverse applications have led to unexpected challenges. Recent advances in data science have addressed challenges such as sensitivity, selectivity, drift, aging, the limit of detection, and response time. Data-driven techniques have paved the way for converting raw sensor features into actual and meaningful information. The incorporation of modern data analysis involving artificial intelligence (AI) is poised to enable a self-sustaining gas-sensing infrastructure without human intervention. This is an exciting time to be working in gas sensors to derive solutions that continue to improve the ability to accurately sense and control our environment.

The goal of this Special Issue is to collect research focusing on accurate and field-ready gas sensors empowered by artificial intelligence and modern data analysis techniques. We invite investigators to contribute both original and review articles, covering the breadth and depth of the research and development of artificial-intelligence-enabled smart gas sensors.