Special Issue

Applications of Signal and Data Processing in Chemical Sensing

Message from the Guest Editor

This Special Issue of *Signals* focuses on the essential role of signal and data processing in enhancing chemical sensing technologies, ranging from low-cost sensors to advanced analytical instruments. Recent advancements in signal processing and machine learning have significantly improved the accuracy, sensitivity, and robustness of chemical detection systems, allowing them to be applied in various fields. We invite contributions exploring signal and data processing methods in low-cost sensors, particularly in areas such as drift compensation, calibration transfer, and feature extraction for environmental monitoring, air quality, food safety, and biomedical sensing applications. We also encourage articles on advanced analytical techniques, including near-infrared spectroscopy, laser-based spectroscopy, mass spectrometry, nuclear magnetic resonance, and ion mobility spectrometry. Studies that utilize multivariate analysis and machine learning to enhance detection and interpretation are especially welcome...

Guest Editor

Prof. Dr. Santiago Marco

1. Department of Electronics and Biomedical Engineering, University of Barcelona, Marti I Franqués 1, 08028 Barcelona, Spain
2. Signal and Information Processing in Sensor Systems, Institute for Bioengineering of Catalonia, The Barcelona Institute of Science and Technology, Baldiri Rexac 10-12, 08028 Barcelona, Spain

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Signals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
signals@mdpi.com

mdpi.com/journal/signals

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Message from the Editor-in-Chief

Our primary goal is to encourage scientists and engineers to publish their theoretical results and developed methods in as much detail as possible. There is no limit to the maximum length of papers. Whenever possible, authors are encouraged to provide relevant data and developed code so that the results can be reproduced. Our goal is to provide a platform for scientists and engineers to share new approaches to signal processing in various application domains.

Editor-in-Chief

Prof. Dr. Santiago Marco
1. Department of Electronics and Biomedical Engineering, University of Barcelona, Marti I Franqués 1, 08028 Barcelona, Spain
2. Signal and Information Processing in Sensor Systems, Institute for Bioengineering of Catalonia, The Barcelona Institute of Science and Technology, Baldiri Rexac 10-12, 08028 Barcelona, Spain

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