Special Issue

System Applications and Methods Based on Sound Processing: AI Based and Conventional Approaches

Message from the Guest Editors

Sound is an essential component of nature. Any activity that involves the mediation of mechanical energy produces sounds. The sound characteristics determine the operating state of the system in question. When an abnormality occurs, the produced sound is modulated accordingly. This differentiation can be used to diagnose possible damages. This approach for diagnosis is well known and quite reliable and corresponding electronic systems have been developed for a multitude of applications. The exploitation of sounds is achieved either by using signal processing algorithms or by using artificial intelligence. The topics of the Special Issue include but are not limited to: Methods and systems using sound signals for:

- Leak detection and localization in pipelines
- Defect detection in materials and machines
- Classification of ground vehicles
- Applications of bioacoustics in animal ecology
- Identification in music
- Machine learning and deep learning approaches based on acoustic signals
- Acoustic signal applications on embedded systems
- Hardware for processing acoustic signals

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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