Special Issue

Symmetry/Asymmetry in Active Noise Control and Acoustic Echo Cancellation: Advances and Applications

Message from the Guest Editors

In recent years, there has been increasing interest in the development of active noise control (ANC) and acoustic echo cancellation (AEC) systems since they are used in various commercial applications. ANC systems are commonly found in the automotive and aerospace industries, as well as in headphones and hearing devices. In contrast, AEC systems are utilized in video conferencing systems, intelligent voice control devices, and mobile communication systems. Despite significant advancements, both technologies face similar challenges, particularly in practical applications. These challenges arise from symmetric and asymmetric problems related to sensor positioning, the characteristics of noise sources, the properties of acoustic environments, and the control algorithms, among other factors. This Special Issue invites submissions that focus on new applications, sensing techniques, algorithm development, system modelling, and hardware implementation aimed at enhancing the reliability and effectiveness of ANC and AEC systems.

Guest Editors

- Prof. Dr. Juan Gerardo Ávalos
- Prof. Dr. Jesús Olivares-Mercado
- Prof. Dr. Eliseo Sarmiento Rosales

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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