Call for Papers
IEEE Instrumentation and Measurement Society
IEEE Instrumentation and Measurement Magazine
Special issue on
"Acoustic Measurement and Information Retrieval"

Sound is all around us. The acoustic environment is rich with information. If we only *listen* to a scene, we can infer much about: *who* (or what) is in the scene, *what* is happening in the scene, *where* the scene is, and potentially more about *how* things are interacting and *why*.

Acoustics provide a distinct perspective on *qualities* of objects, things, or even people. We may be informed of the ripeness of a melon by thumping it, the properties of a wall or door by knocking on it, or the general wellness of a person by the sound of their voice.

Microphones and recording devices are readily available (from special-purpose audio acquisition equipment to smartphones), providing unending sources of data to process. This endless stream of data inspires ever-increasing wish lists of what we would like to automatically identify and analyze, from speech to music to animals to warning signals and on and on.

The aim of this special issue is to present to the I&M audience a wide array of acoustic measurement applications, particularly those that lead toward the extraction of *information* from audio signals. In doing so, we hope to feature research from a variety of disciplines and perspectives, providing fodder for new ideas and potential new applications of acoustic measurement.

Prospective authors are invited to submit tutorial-style papers on topics related to Acoustic Measurement and Information Retrieval, including (but not limited to) the following:

- Computational auditory scene analysis
- Sound scene classification
- Sound event detection
- Acoustic monitoring
- Music information retrieval
- Bioacoustics
- Acoustic applications to health care
- Acoustic applications to industry
- Acoustic applications to agriculture
- Acoustic applications to ecology / conservation
- Psychoacoustic measurement
- Audio-informed autonomous systems, and
- Analysis via acoustic properties.

Papers should present to a wide audience a general overview of your research framed in the field of Instrumentation and Measurement.

While drafting your paper to be submitted to IMM, you are strongly invited to take care that:

- Papers are expected to have technical content, but primarily they should present to the wide audience a general overview of the scientific subject addressed. Contributions dealing with Open Problems in IM are very welcome, presenting challenging and ambitious solutions which could be assisted by current and advancing technology.

- Since the IEEE Instrumentation and Measurement Magazine has the goal of providing overviews of hot and challenging topics in instrumentation and measurement to a wide engineering audience, it is strongly recommend to focus the Introduction and "State of the Art" sections to properly highlight open problems in the subject addressed by this paper and to demonstrate its contextualization in the framework of Instrumentation and Measurement. This may be aided by including references from I&M-related Journals and Conferences.

- The technical contribution of the paper should not be too in-depth. It could consist of a SHORT case study to demonstrate the methodology/technology addressed by the paper.

- In line with the mission of the I&MM, papers have to be written for the general IM audience.

The paper format is compliant with the IMM's author guidelines:
http://ieee-ims.org/publications/im-magazine

In general, each paper should contain 3500-5000 words, and present 4-6 figures.

When your paper is ready, please submit it completely through:
https://www.editorialmanager.com/IMM/default.aspx

We expect to receive your paper by **31 January 2021** to begin the review and production process.

Guest Editor:
David Heise