

Dear Readers,
Dealing with fundamental pillars in the field of Instrumentation and Measurement is a mandatory task to be accomplished to assure a right contextualization and development of rigorous measurement methodologies, as well as their implementation in effective measurement systems.



This issue offers interesting reading in essential subjects such as “fundamentals of measurement,” “measurement methodology,” “instrumentation and measurement systems” and “measurement and applications.”

In the “fundamentals of measurement” column, we have the very interesting reading “Giovanni Giorgi and the International System of Units,” dealing with the problem of choosing right measurement units and their conversion. Two contributions deal with “measurement methodology.” The first column, “Radar-Based Human Activity Recognition,” presents the development of radar-based methodologies for human activity recognition aimed for a reliable and accurate fall event detection. The other one, “Visualizing Uncertainty in Machine Learning-Assisted Measurements,” mainly addresses the fundamental theme of appropriately estimating and declaring uncertainty in machine learning based measurement methodologies.

In the field of “instrumentation and measurement systems,” the contribution “TinyML: Methods, Applications and Opportunities for Instrumentation and Measurement” provides an overview of the development of TinyML models and their applications in the instrumentation and measurement framework.

The use of measurement systems, enabling “smart home technology” is addressed in the “measurement and applications” column “Technology Enabling Aging in Place—The Supportive Smart Home,” which clearly highlights the added value of such approaches to support independent living of elderly people.

This issue also includes feature articles that introduce topics deserving strong consideration, such as the use of IoT instrumentation to empathize with plants in tropical botanical gardens, wearable sensing devices for injury prevention in human activities, as well as advanced sensors for bio-applications.

My personal gratitude is extended to all contributors willing to share their valuable skills to our readership. A special thank goes to Ruth A. Dyer for conveying such unique message on the behalf of the Instrumentation and Measurement Society.

Enjoy this reading,

Bruno