Tutorial section at MeSSAC 2025

Managing measurements demands expertise in diverse areas. Each measurement field requires a deep understanding of its specific objects, methods, and instruments, including mathematical models, signal processing, and electronics. The measurement field is vast, with various applications and tools. Despite this diversity, the core of measurement science lies in defining and refining measurement models and validating results through uncertainty estimation. This core principle, essential in both academia and industry, unites the field and emphasizes the importance of maintaining focus on the fundamentals of measurement to foster a shared culture and strengthen IMS membership.

2. Information for Tutors

The tutorial session targets all the participants attending the conference and should provide the participants with the opportunity to enhance their knowledge on both the fundamentals of measurement science and its applications. Participants attending the tutorials are expected to be qualified with a minimum of an undergraduate degree in a relevant area of engineering or science.

Experts interested in delivering a tutorial on one of the given topics are requested to submit as their CV and an abstract of no more than 2 pages, containing:

- Title of the tutorial

- Abstract (200 words maximum) to be shown on the website

- A description of the technical issues that the tutorial will address, emphasizing its significance and timeliness

- An outline of the tutorial content

The deadline for submission is **26 January 2025**. The proposal will undergo a review process, and selected applicants will be asked to prepare the final material by **14 February 2025**.

3. The Tutorial Organization

The tutorial will feature top global specialists, offering participants access to the best knowledge and diverse perspectives. Informal moments will allow students and participants to engage beyond lectures, fostering deeper discussions.

Each tutorial will last one hour and a half, including 15 minutes for discussions and comments. We are considering covering 2 or 3 tutorial topics, each consisting of 3 tutorials. The speakers will present the topic from different perspectives, starting with the fundamentals and then focusing on applications. The structure is as follows:

- Fundamentals of Measurement Science (1.5 hours) – common to all participants

- Modern Measuring Devices and Techniques: 3 tutorials of 1.5 hours each

- Digital Signal Processing and Methods in Measurements: 3 tutorials of 1.5 hours each

- AI Methods in Measurements: 3 tutorials of 1.5 hours each