IEEE

AI4IM

IEEE Symposium on Artificial Intelligence for Instrumentation and Measurement

Amalfi, Italy || May 21-23, 2026

IEEE INSTRUMENTATION & MEASUREMENT SOCIETY®

CALL FOR PAPERS

IMPORTANT DATES

Submission deadline
January 31, 2026

Notifications
(Accept, Minor, Reject)
February 12, 2026

Minor revisions due
February 19, 2026

Minor revisions final decision
(Accept, Reject)
February 23, 2026

Final manuscript and early registration
February 26, 2026

OJIM or TIM Special Section Submission
June 15 - July 15, 2026

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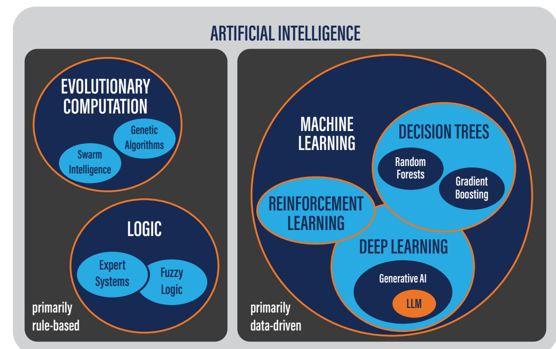
Artificial Intelligence (AI) is now prevalent in all technology domains, including instrumentation and measurement (I&M). In recent years, public discourse and media attention have largely centered on generative AI, particularly Large Language Models (LLMs), driven by the popularity of tools like ChatGPT and other chatbots. However, AI extends far beyond just LLMs, as shown in the diagram. Machine learning, deep learning, reinforcement learning, evolutionary computation, and logic are now routinely used in I&M systems for measurement, detection, tracking, monitoring, characterization, identification, sensing, estimation, recognition, or diagnosis of physical phenomena.



These AI-assisted I&M systems offer many benefits due to their data-driven and practical approach, providing feasible solutions for optimizing and calibrating measurement model parameters, improving measurement accuracy, and handling noisy, imprecise, ambiguous, or uncertain signal data. However, they also face many challenges that remain unresolved, such as AI's compatibility with measurement standards, cross-domain transferability and generalization, uncertainty quantification, trustworthiness of AI predictions, data engineering, and more.

This symposium will provide an opportunity for researchers and practitioners in this field to present their latest innovations, approaches, and results to their peers, while receiving valuable feedback and having the opportunity to further network and collaborate with one another. Topics of interest include the following and similar subjects:

» AI-assisted soft sensors
» AI-assisted synthetic instruments
» AI-assisted virtual instrumentation
» Evolutionary computation-assisted I&M with genetic algorithms or swarm intelligence
» Fuzzy-logic and logic-driven I&M
» Generative AI-assisted I&M
» I&M with decision trees, random forests, and gradient boosting
» Interpretation and compatibility of measurement standards in the world of AI
» Large language models for measurement
» Machine learning and deep learning for I&M
» Reinforcement learning-assisted I&M
» Uncertainty quantification in AI-assisted measurements
» Transfer learning and cross-domain generalization of AI-assisted measurements
» Trustworthiness and explainability of AI-assisted measurements
» AI-assisted measurement systems and applications, including but not limited to:
  - Fault diagnosis
  - Intelligent maintenance
  - IoT and industrial measurements
  - Localization
  - Medical measurements
  - Metrology
  - Network and communication measurements
  - Quantum measurements
  - Vision-based measurements

Paper Format

At least 4 full pages and no more than 6 pages in **IEEE conference format**.

TIM & OJIM Special Sections

All papers which are accepted, registered, and presented as per the presentation guidelines (oral or poster) for Ai4IM are eligible to submit a technically extended version to the Ai4IM Special Section in the IEEE **Open Journal of Instrumentation and Measurement** (OJIM) or **IEEE Transactions on Instrumentation and Measurement**. In case the author decides to submit to OJIM, the open access fees are waived.

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