ICMLC 2026 in Cagliari: Advancing Safe and Trustworthy AI and Looking Ahead to ICMLC 2027 in Osaka

The **International Conference on Machine Learning and Cybernetics (ICMLC)** (http://www.icmlc.com) has provided an international forum for researchers, practitioners, and students in machine learning, cybernetics, artificial intelligence, and intelligent systems since its first conference in 2002. Over the years, the conference has maintained a close connection with the **IEEE Systems, Man, and Cybernetics (SMC) community**, with many current and former SMC Society leaders contributing as keynote speakers, conference organizers, advisors, and panelists.

ICMLC 2026: Safe, Trustworthy, and Responsible AI in Cagliari

The **25th International Conference on Machine Learning and Cybernetics (ICMLC 2026)** was held jointly with ICWAPR 2026 in **Cagliari, Italy, from 12–15 July 2026**. The program combined technical sessions with keynote lectures, a tutorial, a panel discussion, and the Lotfi Zadeh Best Paper Award, with particular attention to emerging challenges in AI security, trustworthy AI, and responsible intelligent systems.

One of the highlights was the keynote **"Ethics of Physical Intelligence"** delivered by **Dr. Adrian Stoica**, NASA Jet Propulsion Laboratory Emeritus and **Junior Past President of the IEEE SMC Society**. As AI becomes increasingly embedded in autonomous robots and other physical systems, his presentation emphasized the need to treat ethics, safety, transparency, and accountability as fundamental engineering requirements rather than afterthoughts.

A second keynote, **"An Energy-Based Modeling Perspective on Adversarial Robustness, LLMs, and Neural Inversion,"** was delivered by **Dr. Iacopo Masi of Sapienza University of Rome**. His presentation connected energy-based modelling with several important contemporary problems, including adversarial robustness, hallucination detection in large language models, and neural model inversion.

Responsible AI was also explored through the tutorial **"Responsible AI in the GenAI Era to Enhance Human–AI Collaboration."** Supported by the **IEEE SMC Society Transforming Educational Assets and Materials (TEAM) Program**, the tutorial addressed practical challenges associated with Generative AI, including hallucinations, model and dataset bias, privacy, human-in-the-loop validation, explainability, monitoring, and reproducibility.

The discussion continued in the special panel **"Safe AI: How to Develop Safe and Trustworthy AI Systems."** Moderated by **Professor Kevin Wong of Murdoch University**, a current member of the IEEE SMC Board of Governors, the panel brought together experts from academia, government, and industry to examine how AI systems can be made safer, more trustworthy, and better aligned with human values. Panelists included Adrian Stoica, Iacopo Masi, Patrick Chan, Battista Biggio, Maura Pintor, and Jonathan Pan.

Another highlight was the **2026 Lotfi Zadeh Best Paper Award**, presented to: **"Exposing Spurious Features in Traffic Anomaly Detectors for the 5G Core Network"** by **Cristian Manca, Christian Scano, Giorgio Piras, Maura Pintor, Fabio Brau, and Battista Biggio**, University of Cagliari, Italy.

The work is particularly relevant to the conference's growing emphasis on the interaction between **machine learning, cybersecurity, and AI security**.

Looking Ahead: ICMLC 2027 in Osaka, Japan

Building on ICMLC 2026, we warmly invite members of the IEEE SMC community to participate in the **26th International Conference on Machine Learning and Cybernetics (ICMLC 2027)**, which will be held jointly with the **24th International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR 2027)** in **Osaka, Japan, from 3–6 July 2027**.

ICMLC 2027 is technically sponsored by IEEE SMC Society and will continue to provide a platform for researchers and practitioners from academia and industry to exchange new ideas and develop international collaborations. The conference will place special emphasis on four timely areas: **Adversarial Learning, AI Security, Generative AI, and Uncertainty Modelling.**

The broader topics of interest include large language models, ethical AI, cybersecurity, evolutionary computation, fuzzy and rough sets, soft computing, quantum AI, data and web mining, decision-support systems, multimedia processing, intelligent and fuzzy control, and ubiquitous social intelligence.

ICMLC 2027 will also feature a **Panel Discussion on AI Security** and the **Lotfi Zadeh Best Paper Award**. The General Chairs are **Tadahiko Murata of The University of Osaka** and **Peng Shi of Adelaide University**, with an international organizing, steering, and advisory team supporting the conference.

Submitted manuscripts should be **4–6 pages in IEEE conference format** and will be peer-reviewed by at least three reviewers. Accepted papers will be submitted for consideration for inclusion in **IEEE Xplore** and for indexing in **EI Compendex**, while selected papers will be recommended for publication in special issues of SCI-indexed journals, including the *International Journal of Machine Learning and Cybernetics*.

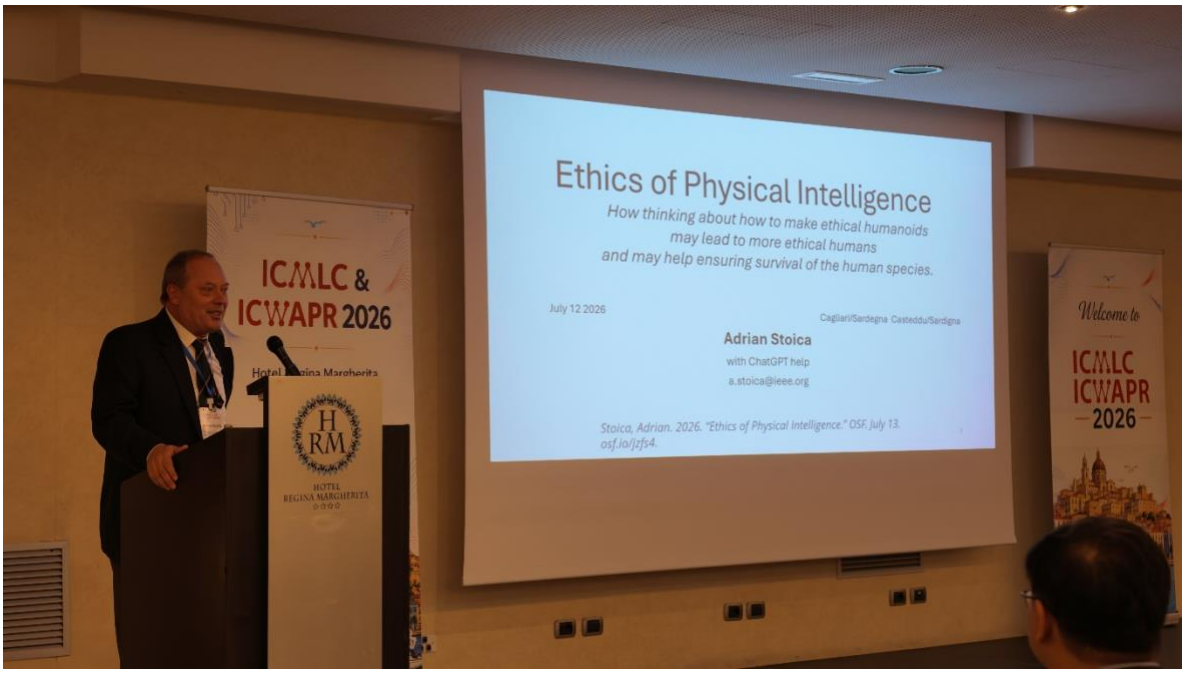
Important Dates

Paper Submission: 1 April 2027
Notification of Acceptance: 30 April 2027
Registration: 10 May 2027
Conference: 3–6 July 2027, Osaka, Japan

We warmly welcome researchers, practitioners, and students from across the **IEEE SMC community** to submit their latest research and **join us in Osaka in July 2027**.

Conference website: www.icmlc.com

Participants of ICMLC & ICWAPR 2026 in Cagliari, Italy.



Dr. Adrian Stoica, IEEE SMC Junior Past President, delivering his keynote, “Ethics of Physical Intelligence,” at ICMLC 2026.

Panel discussion on “Safe AI: How to Develop Safe and Trustworthy AI Systems” at ICMLC 2026, bringing together experts from academia, industry, and the IEEE SMC community.

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Biography

Dr. Patrick Chan received his Ph.D. from The Hong Kong Polytechnic University in 2009 and is currently an Associate Professor and Deputy Dean of Shien-Ming Wu School of Intelligent Engineering at South China University of Technology, China. His research focuses on AI security, Large Language Model, Deep Learning, Adversarial Learning.

He serves as an Associate Editor for leading journals, including IEEE Transactions on Cybernetics, Information Sciences, and the International Journal of Machine Learning and Cybernetics. He also served as a member of the IEEE SMC Society Board of Governors from 2014 to 2016.