

MTM & ROBOTICS 2024 - THE JOINT INTERNATIONAL CONFERENCE OF THE XIV INTERNATIONAL CONFERENCE ON MECHANISMS AND MECHANICAL TRANSMISSIONS (MTM) AND THE XXVI INTERNATIONAL CONFERENCE ON ROBOTICS (ROBOTICS)

Ioan Doroftei

The Joint International Conference of the XIV International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXVI International Conference on Robotics (ROBOTICS) - MTM & ROBOTICS 2024, <https://mtm-robotics2024.upt.ro/>, was organized by Department of Mechanical Engineering, Mechatronics and Robotics at “Gheorghe Asachi” Technical University of Iasi, Romania (TUIASI), and Technical Sciences Academy of Romania - ASTR, in Iasi, Romania, on November 14 – 15, 2024, with the support of: International Federation for Promotion of Mechanism and Machine Science – IFToMM (Technical Committee for Linkages and Mechanical Controls, Technical Committee for Robotics and Mechatronics), Romanian Association of Mechanism and Machine Science – ARoTMM, Robotics Society of Romania– SRR.

The previous editions of the two conferences were held in Romania until 2012, beginning with 1972, every four years—MTM and since 1981, every two years—ROBOTICS. In 2012, the two conferences have been organized as joint conferences at Pascal Institute, Clermont-Ferrand, France, and then, in 2016, at RWTH Aachen, Germany, and in 2020 at Politehnica Timisoara, Romania.

The joint conference was organized under the Patronage of IFToMM (International Federation for the Promotion of Mechanism and Machine Science: Technical Committee for Linkages and Mechanical Controls; Technical Committee for Robotics and Mechatronics).

The aim of the joint conference was to bring together researchers, scientists, industry experts and PhD students involved in the general area of mechanisms, mechanical transmissions, robotics and mechatronics, to disseminate their latest research results and exchange views on the future research directions of these fields.

The topics of the symposium are related to mechanisms and robotics within aspects of theory, design, practice, and applications in engineering, including but not limited to: Mechanisms analysis and synthesis; Dynamics of mechanisms and machines; Mechanical Transmissions; Biomechanics; Precision mechanics; Mechatronics; Micromechanisms and Microactuators; Computational and Experimental Methods; CAD in mechanism and machine design; Serial and parallel robots; Mobile robots; Collaborative robots; Micro and Nano robots; Sensors and actuators; Advanced control; Artificial intelligence; Medical robots; Teleoperation, haptics, Virtual reality.

The scientific committee, consisting of prestigious personalities from all over the world, accepted 29 contributions of 82 authors from Germany, Portugal and Romania, on a variety of topics, presented above.

The talks of the conference have been presented in a plenary session, 6 onsite sessions and one poster session. Three keynote speakers, from Germany, Portugal and Romania, showed new applications and trends for the conference participants.

The scientific contributions will be published by Springer Publisher, as a printed volume, in the prestigious series Mechanisms and Machine Science, indexed in several data bases and monitored by all major abstract media.

During the joint conference two of the plenary speakers received the Doctor Honoris Causa title from „Gheorghe Asachi” Technical University of Iasi: Prof. Karsten Berns from RPTU Kaiserslautern-Landau, Germany; Prof. Joao Paulo Flores Fernandes, University of Minho, Portugal.

