

SYROM & ROBOTICS 2022 - THE JOINT INTERNATIONAL CONFERENCE OF THE 13TH IFTOMM INTERNATIONAL SYMPOSIUM ON SCIENCE OF MECHANISMS AND MACHINES (SYROM) AND THE XXV INTERNATIONAL CONFERENCE ON ROBOTICS (ROBOTICS)

**Ioan Doroftei, Mircea Nitulescu,
Doina Pisla, Erwin – Christian Lovasz**

The IFToMM International Symposium on Science of Mechanisms and Machines (SYROM) is an international symposium organized by the Romanian Association of Mechanism and Machine Science – ARoTMM. The first edition of this symposium was organized in Bucharest, in 1973.

The International Conference on Robotics (ROBOTICS) is usually organized by the Robotics Society of Romania– SRR and the first conference was organized in Bucharest, in 1981.

The Joint International Conference of the 13th IFToMM International Symposium on Science of Mechanisms and Machines (SYROM 2022) and the XXV International Conference on Robotics (ROBOTICS 2022), <https://syrom-robot.upt.ro>, was organized by the Mechanical Engineering, Mechatronics and Robotics Department at the Mechanical Engineering Faculty, “Gheorghe Asachi” Technical University of Iasi, Romania, with the support of the: Romanian Association for the Science of Mechanisms and Machines (ARoTMM), Robotics Society of Romania (SRR), and Technical Sciences Academy of Romania (ASTR).

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. This conference also offered to the participants the opportunity to see each other face to face, after a long and difficult period offered by the COVID pandemic.



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: Theoretical and computational kinematics; Mechanism design; Experimental mechanics; Dynamics of machinery; Dynamics of multi-body systems; Mechanisms for biomechanics; Mechanical transmissions; Linkages and mechanical controls; Micro-mechanisms; History of mechanism science; Industrial and non-industrial applications; 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 42 contributions of 121 authors from 11 countries around the world, such as Belgium, France, Germany, Italy, Kazakhstan, Mexico, Portugal, Romania, Russia, Spain and Switzerland, on a variety of topics, presented above.

The talks of the conference have been presented in a plenary session, 4 onsite sessions, 2 online sessions and one poster session. Four keynote speakers, from Germany, Italy 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.

