

October 23-24, 2025

Cosmos Saint-Petersburg Pulkovskaya Hotel

EXTREME ROBOTICS



36th International scientific and technological conference

☎ +7 (812) 552-4521 ✉ mrspsb@rtc.ru 🏠 er.rtc.ru
📱 t.me/extremrobotics

📍 Saint Petersburg, pl. Pobedy, 1

TOPICS OF THE CONFERENCE



Ground Robotics

- Ground robotic systems
- Technologies and components of robotic systems



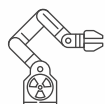
Industrial and Professional Service Robotics

- Robots in production
- Technologies for robot-operator interactions
- Industrial exoskeletons and collaborative robots
- Professional service robotics



Marine Robotics

- Technologies and components for underwater communication and navigation
- Technologies for development of robotic systems and equipment for unmanned underwater and surface vehicles
- Robotic systems for underwater technical and emergency rescue operation
- Advanced areas for underwater robotics application



Robotization of Nuclear Industry

- Robotics for decommissioning nuclear power facilities
- Robotic systems for diagnostics and non-destructive monitoring of nuclear power facilities
- Radiation-resistant components of robotic systems
- Problems and their solutions in creating radiation-resistant components for robotic systems and complexes



Space Robotics

- Orbital and on-planet robotic bases and rovers
- Robotics in manned spaceflights
- Robotization of space research missions and space security monitoring



Youth Robotic School

- Subject sessions on robotics
- Master-classes
- Presentations of specialists and experts
- Exchange of experience
- Expert opinion of professionals



Theoretical Foundations of Robotics

- Structure and arrangement of robots and their subsystems
- Robot control systems
- Theory of mechanisms and machines
- Digital information processing



Educational Robotics

- Youth robotics competitions as a way to involve schoolchildren and students in technical creativity
- Career guidance and project activities with students and schoolchildren
- Methodological support for educational activities



Artificial Intelligence Technologies and Digital Development Technologies in Robotics

- Situational analysis and formation of behavior of autonomous robots
- Automation of data markup, formation of structured databases
- Intellectualization of robotic systems based on distributed computational resources
- Intelligent systems for robot group communication and coordination
- Ensuring cybersecurity of cyber-physical systems application



Meeting of Technical Committee on Standardization "Robotics" (TC-141) *(by invitation)*

- Report on activities in 2024
- Work plan for 2025 – 2026
- Activities in ISO and IEC
- Discussion on issues of standardization in the field of robotics

* Topics of the Conference will be refined

ORGANIZERS



Ministry of Science and Higher Education
of the Russian Federation



Russian State Scientific Center for Robotics and Technical Cybernetics
(RTC)