

TrustRobotics Challenge: Safe & Secure Robotic Systems in Action


Chair: Ionela Prodan

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The TrustRobotics Challenge of CSAW'25 Europe (<https://esisar.grenoble-inp.fr/en/research/csaw>) is a competition dedicated to highlight innovative and impactful research in the field of safe and secure robotics. This unique initiative invites Master, PhD students and postdocs researchers from academia and industrial R&D labs across Europe to present their work, with a strong emphasis on demonstrable safety, resilience and trust in robotic systems. This year's 11 finalists will be evaluated by a panel of industrial and academic experts, focusing on how well their research resonates with industry and its practical relevance.

UNIVERSITEIT GENT

Adelina Giurea




BELGIUM
 Ghent University,
 Internet Technology
 and Data Science Lab

Integration of UWB Radar in Mobile Robots for Continuous Obstacle and Environment Mapping

UNIVERSITY OF CHEMICAL TECHNOLOGY AND METALLURGY UCTM SOFIA

Georgi Georgiev



BULGARIA
 University of Chemical
 Technology and Metallurgy

Safe Use of KUKA KR300 Industrial Robot in Electric Arc Furnace Operation

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

Nicola D'ambrosio



ITALY
 University of Naples
 Federico II
 Dept. of Electrical Engineering and
 Information Technology

Bridging Safety and Security: From Legacy Systems to Modular Cyber-Resilient Architectures in Aerospace

Technische Universität München TUM

Zhen Zhang




GERMANY
 Technical University of Munich,
 School of Computation, Information
 and Technology

Data-Driven Nonconvex Reachability Analysis Using Exact Multiplication for Safety-Critical Applications

Technische Universität München TUM

Ahmad Hafez Amr Hegazy





GERMANY
 Technical University
 of Munich,
 School of Computation, Information and
 Technology

Safe LLM-Controlled Robots with Formal Guarantees via Reachability Analysis

UNIVERSITY OF ZAGREB

Luka Siktar Branimir Caran

CROATIA
 Faculty of Mechanical
 Engineering and Naval
 Architecture,
 University of Zagreb

Project ROBOCAMP: Aerial Robotics for Autonomous Search and Rescue in Tourist Camps

GRENOBLE INP UGA **POLITEHNICA DE BUCURESTI**

Hung Truong Trang Nguyen Rares Zamfir





FRANCE,
 LCIS - Grenoble INP,
 University Grenoble
 Alpes
ROMANIA, Univ. Politehnica of Bucharest

B-Spline-Based SLAM for Safe Exploration and Navigation of Ground Robots Equipped with LiDAR

Università di Genova

Luca Tarasi




ITALY
 University of Genoa
 DIBRIS

COLREGs-Compliant Navigation Framework for Autonomous Surface Vehicles Using LiDAR and RGB Data Fusion

U. PORTO UNIVERSIDADE DO PORTO

Mohammad Reza Ranjbar Divkoti




PORTUGAL
 Faculty of Engineering,
 University of Porto

Dynamic Obstacle Avoidance and Motion Planning for UAV with Low-Cost Sensors Using Deep Reinforcement Learning and a Behavior Grid Map with Minimal Sensing

POLITEHNICA DE BUCURESTI

Vlad Angheluta



ROMANIA
 University Politehnica
 of Bucharest, Faculty of Automation
 and Computer Science

Safe control for leader-follower formations of Aerial Drones

GRENOBLE INP UGA

Cong Khanh Dinh



FRANCE
 LCIS - Grenoble INP,
 University Grenoble Alpes

Distributed Evolutionary Dynamics Formation Control and Reconfiguration for Nanodrones

JURY MEMBERS



Mata Khalili, PhD.
 Robotics Research Scientist,
 Nokia Bell Labs




Warody Lombardi, PhD.
 Inertial navigation engineer,
 Thales




Sylvain Bertrand, PhD.
 Senior Research Scientist
 ONERA - The French
 Aerospace Lab




Vincent Marguet, PhD.
 Control engineer,
 SurveyCopter,




Lucas Paillet
 Control Engineer,
 Safran Electronics &
 Defense



Louis Morge-Rollet, PhD.
 Associate Prof. in
 Embedded Systems,
 LCIS - Grenoble INP



Yoann Hervagault, PhD.
 Embedded electronics
 engineer, Actia 3E



Christophe Gauthier, PhD.
 Systems Chief Engineer,
 Volvo Trucks

Finalists' presentations and demonstrations: November 14, 2025, starting with 8:15 a.m. in room A049 at Esisar-Grenoble INP,
 Address: Esisar-Grenoble INP, 50 rue Barthélémy Laffemas, 26000 Valence
 To attend the presentations, registration is mandatory at the following link: [Link for subscription](#)

For further information please contact the Chair of the Competition, Assoc. Prof. Ionela Prodan (ionela.prodan@lcis.grenoble-inp.fr)

