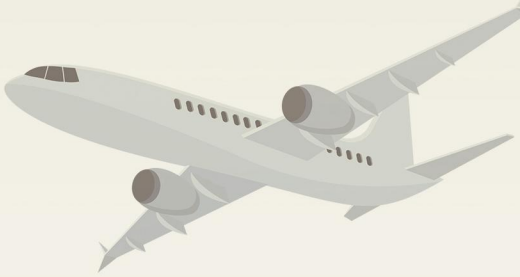


IDST 2025

2025 2ND INTERNATIONAL CONFERENCE ON

INTELLIGENT DRIVING AND SMART TRANSPORTATION

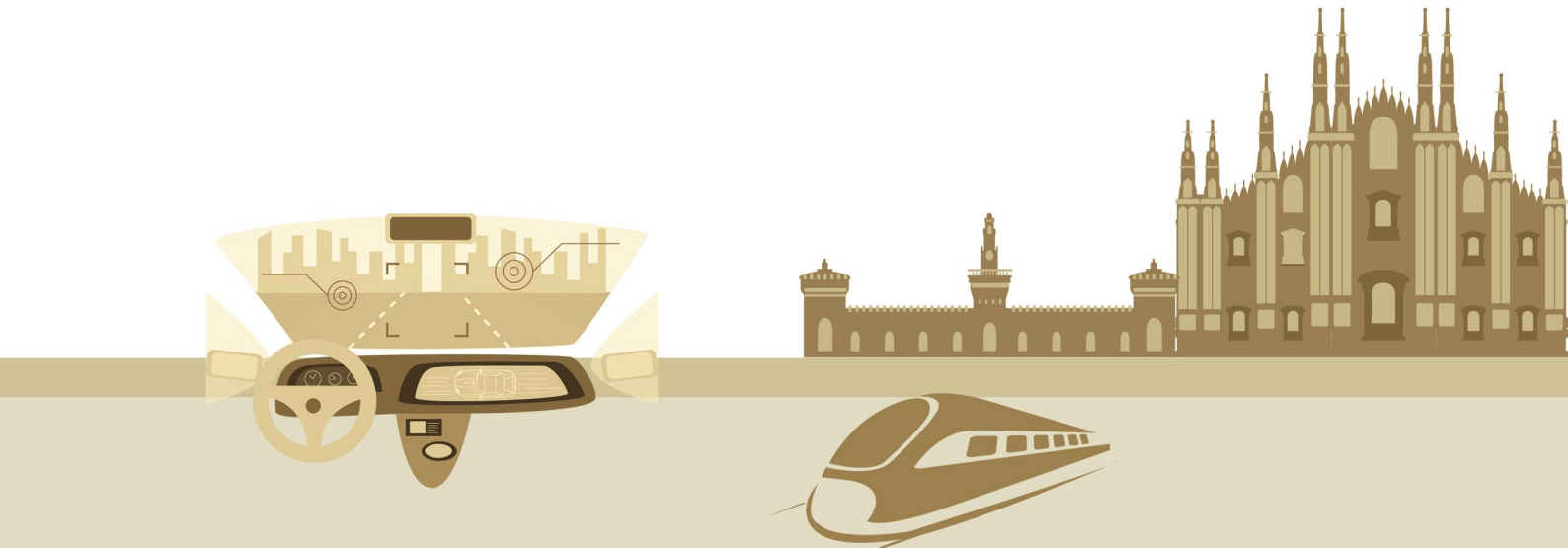
Conference Program

November 24-26, 2025 **Milan, Italy** MILAN

Organizers: Politecnico di Milano | Università Roma Tre

POLITECNICO MILANO 1863

ROMA TRE UNIVERSITÀ DEGLI STUDI



Conference Guidelines

Dear Guests:

Welcome to Milan, Italy to attend the 2025 2nd International Conference on Intelligent Driving and Smart Transportation (IDST 2025) ! To ensure we could have a great time in the conference, kindly please read the conference brochure carefully.

About IDST 2025

Intelligent driving and smart transportation uses new and emerging technologies to make moving around a city more convenient, more cost effective and safer. Under this background, organized by Politecnico di Milano and Roma Tre University and supported by Zhejiang University of Technology, 2025 2nd International Conference on Intelligent Driving and Smart Transportation (IDST 2025) will be held from November 24 to 26, 2025 in Milan, Italy. The conference bridges together academic researchers and industrial practitioners to share and exchange the latest developments in the area of intelligent driving and smart transportation. We hope that this conference will stimulate our participants to explore innovative advances and applications in intelligent driving and smart transportation.

Welcome scholars and researchers working in the field of intelligent driving and smart transportation from all over the world to attend the conference and share your experiences and lessons with other enthusiasts, and develop opportunities for cooperation.

Organizations

Organizers: Politecnico di Milano | Roma Tre University

Supporter: Zhejiang University of Technology

Technically Supporters: IEEE | IEEE Italy Section | IEEE Italy Section PE Chapter | IEEE Vehicular Technology Society Italy Chapter

Conference Venue

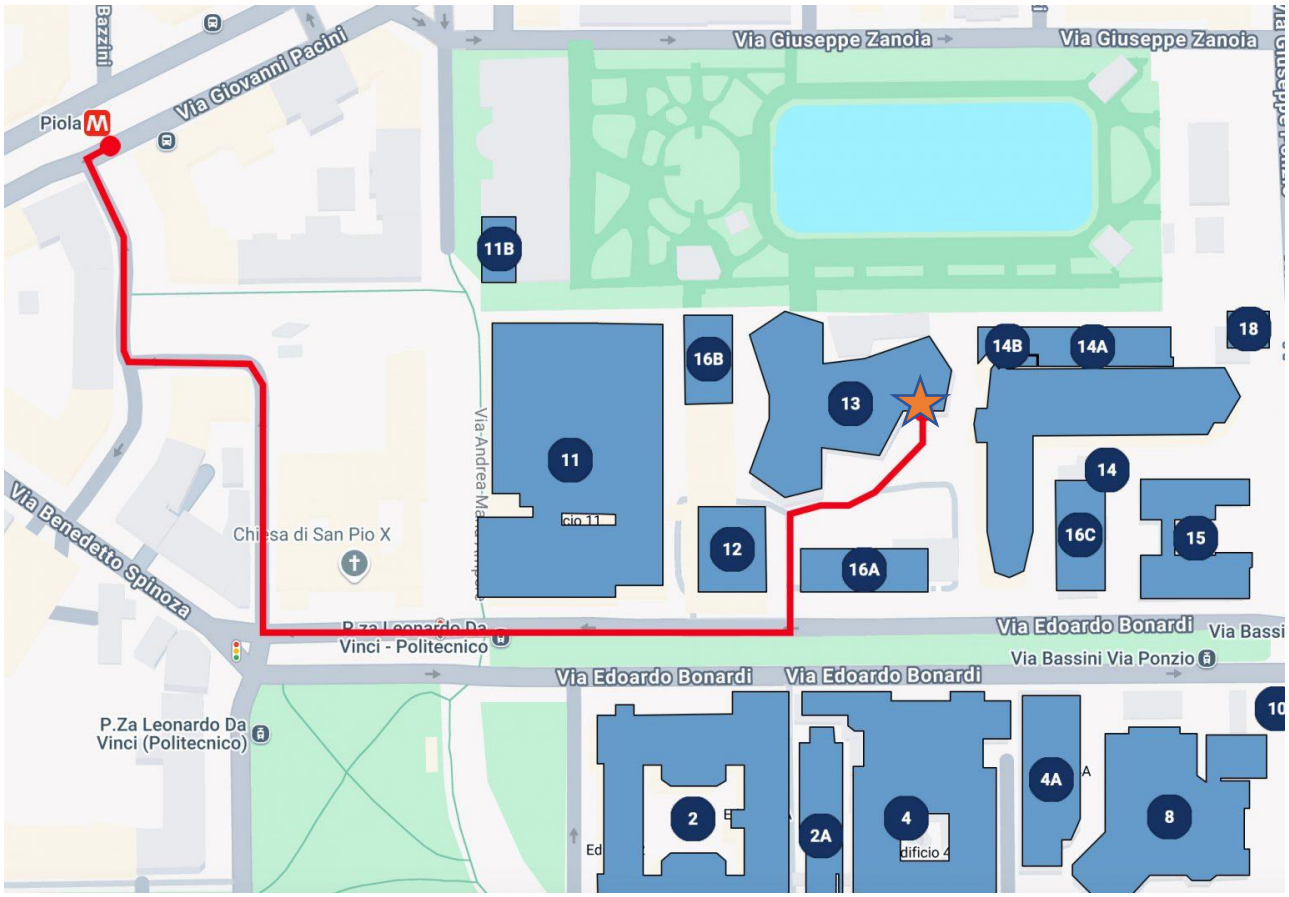
Onsite Venue: Glass Room – Building 13, Via Bonardi 9, Milano, Politecnico di Milano-Leonardo Campus

Address: Politecnico di Milano, Piazza Leonardo da Vinci 32, 20133 Milano

Direction:

Get off the metro at Piola stop.

- Head to Via Francesco d'Ovidio towards Via Dino Compagni.
- Turn left and take Via Benedetto Spinoza.
- Continue on Via Edoardo Bonardi.
- Turn left towards Building 13 of Politecnico.
- Reach the entrance marked on the map: **Glass Room – Building 13, Via Bonardi 9, Milano**



Registration: 08:15-09:00 November 25, 2025 | Glass Room – Building 13, Via Bonardi 9, Milano

Lunch: 12:30-13:30 November 25, 2025 | Glass Room – Building 13, Via Bonardi 9, Milano

Dinner: 20:00-21:00 November 25, 2025 | Place to be confirmed

Conference Committee

General Chairs

- **Prof. Francesco Benedetto**, Roma Tre University, Italy (IEEE Italian Vehicular Technology (VT) Society Chapter Chair, IEEE Senior Member)
- **Prof. Xiangjie Kong**, Zhejiang University of Technology, China (IEEE Senior Member)
- **Asst. Prof. Marzio Barresi**, Politecnico di Milano, Italy (IEEE Italian Vehicular Technology (VT) Society Chapter Vice Chair, IEEE Member)

Technical Program Committee Chairs

- **Prof. Gaetano Giunta**, Roma Tre University, Italy (IEEE Senior Member, Member of the IEEE Signal Processing, Communications, and Vehicular Technology Societies)
- **Prof. Luigi Piegari**, Politecnico di Milano, Italy
- **Prof. Hugo Morais**, INESC-ID and Instituto Superior Técnico, Portugal

Publication Chairs

- **Prof. Samuele Grillo**, Politecnico di Milano, Italy (IEEE Italy PES Chapter Chair)
- **Assoc. Prof. Law Teik Hua**, Universiti Putra Malaysia, Malaysia
- **Assoc. Prof. Xie Ming**, Nanyang Technological University, Singapore

Organizing Committee Chairs

- **Prof. Pierangelo Di Sanzo**, Roma Tre University, Italy
- **Prof. Guojiang Shen**, Zhejiang University of Technology, China

Technical Program Committee Members

- **Prof. Maria Stefania Carmeli**, Politecnico di Milano, Italy (IEEE Member)
- **Prof. Kalapraveen Bagadi**, Vellore Institute of Technology University, India
- **Prof. Samuele Grillo**, Politecnico di Milano, Italy (IEEE Italy PES Chapter Vice Chair)
- **Prof. Hugo Morais**, INESC-ID and Instituto Superior Técnico, Portugal
- **Assoc. Prof. Riccardo Mandrioli**, University of Bologna, Italy (IEEE Member)
- **Asst. Prof. Veerpratap Meena**, National Institute of Technology Jamshedpur, India (IEEE Member)
- **Asst. Prof. Stefano Longari**, Politecnico di Milano, Italy
- **Asst. Prof. Davide De Simone**, Politecnico di Milano, Italy

Organizing Committee Members

- **Mengmeng Wang (Assoc. Researcher)**, Zhejiang University of Technology, China
- **Dr. Jiaxin Du**, Zhejiang University of Technology, China
- **Dr. Zhenzhen Zhao**, Zhejiang University of Technology, China

Conference Program

November 25, 2025		
Onsite Venue: Glass Room – Building 13, Via Bonardi 9, Milano		
08:15-09:00	**Registration**	
09:00-09:15	**Opening Session**	
Keynote Speech Session		
09:15-10:15	**Prof. Giambattista Gruosso, Politecnico di Milano, Milano, Italy** **Speech Title:** Shaping the Future of EV Charging: Impacts and Integration with Power, Communication, and ICT Systems	
10:15–11:15	**Prof. Vinko Lešić, University of Zagreb, Croatia** **Speech Title:** Data-driven Optimisation of Transportation Infrastructure	
11:15-11:30	**Coffee Break**	
11:30–12:30	**Fabio Pressi, A2A E-mobility** **Speech Title:** The future of mobility? Electric, autonomous, shared	
12:30-13:30	**Lunch & Break** **Glass Room – Building 13, Via Bonardi 9, Milano**	
Oral Presentation Session		
13:30–13:45	**Meysam IMANIPOUR, ESTACA'Lab, ESTACA** **Speech Title:** Road projection ADAS impact on cyclists: comparison between real and VR experiments **Authors:** Meysam IMANIPOUR, Sébastien SAUDRAIS, Bertrand BARBEDETTE, ESTACA'Lab, ESTACA	Online
13:45–14:00	**Ali Karimoddini, NC A&T State University** **Speech Title:** From City Streets to Country Roads: Can Automated Vehicles Generalize Lane Detection? **Authors:** Tesfamichael Getahun, Ali Karimoddini, North Carolina A&T State University	Online

Conference Program

Oral Presentation Session		
14:00–14:15	**Liankang Qin, Wuhan University of Technology, China** **Speech Title:** Bayesian Deep Q Learning From Demonstrations for Traffic Signal Control **Authors:** Liankang Qin, Tony Z.Qiu, Wuhan University of Technology China; Shiping Kuang, Huali Ismartways Technology Inc, China	In-person
14:15–14:30	**Seyed Mahdi Miraftabzadeh, Politecnico di Milano, Italy** **Speech Title:** Statistical and Temporal Analysis of Electrical Vehicles Charging Behavior at Caltech ACN **Authors:** Aramchehr Zare, Seyed Mahdi Miraftabzadeh, Michela Longo, Dario Zaninelli, Politecnico di Milano, Italy	In-person
14:30–14:45	**Cristian G. Colombo, Politecnico di Milano, Italy** **Speech Title:** Synergy of Electric Mobility Technologies: Toward Autonomous Dynamic Wireless Charging Systems **Authors:** Sofia Collura, Cristian Giovanni Colombo, Michela Longo, Politecnico di Milano, Italy; Inmaculada Casaucao, Alicia Triviño, University of Málaga	In-person
14:45–15:00	**Erika De Bardi, Politecnico di Milano, Italy** **Speech Title:** Cyberattack Impact on Electric Vehicle Charging and Power Grid Stability **Authors:** Erika De Bardi, Giambattista Gruosso, Politecnico di Milano, Italy	In-person
15:00–15:15	**Nicola Toscani, Politecnico di Milano, Italy** **Speech Title:** Robust VI Controller for a 80-kW Three-Level Active Front End Supporting Bidirectional EV Charging and V2G Integration **Authors:** Nicola Toscani, Marco Mauri, Francesco Castelli-Dezza, Politecnico di Milano, Italy	In-person
15:15–15:30	**Riccardo Mandrioli, University of Bologna** **Speech Title:** Comparison of DAB- and TAB-Based EV Charging from Isolated Trolleybus Feeding Sections **Authors:** Gianluca Gentile, Riccardo Mandrioli, Mattia Ricco, University of Bologna; Marzio Barresi, Politecnico di Milano; Filippo Pellitteri, University of Palermo; Giulia Di Capua, University of Cassino and Southern Lazio	In-person

Conference Program

Oral Presentation Session		
15:30-15:45	**Sıtkı Güner, Electrical and Electronics Engineering, Akdeniz University, Antalya, Turkiye** **Speech Title:** Optimal Charging Schedule for an Electric Metrobus Fleet under PV-Grid Integration **Authors:** Tuna Aykut, Ümmühan Başaran Filik, Eskisehir Technical University, Turkey; Sıtkı Güner, Akdeniz University, Turkey	In-person
15:45–16:05	**Coffee Break**	
16:05–16:20	**Safoin Rahal, Liverpool John Moores University, Liverpool, United Kingdom** **Speech Title:** Design of a Model Predictive Control Strategy for Adaptive Cruise Control in Vehicles **Authors:** Safoin Rahal, Dingli Yu, Liverpool John Moores University, UK	Online
16:20–16:35	**Kun Ren, Tsinghua University** **Speech Title:** Intelligent Safety Testing of Autonomous Vehicles with Implicit Traffic Behavior Distributions	Online
16:35–16:50	**Hamed Jafari Kaleyba, Politecnico di Milano, Italy** **Speech Title:** FEM-Based Thermal and Power Losses Analysis for Different Pad Types in High-Power EV Wireless Power Transfer Charging System **Authors:** Pejman Nemati, Hamed Jafari Kaleybar, Morris Brenna, Dario Zaninelli, Politecnico di Milano, Italy	In-person
16:50–17:05	**Luigi Pio Di Noia, University of Napoli Federico II, Italy** **Speech Title:** Simplified dynamic thermal model of contactless power transfer for electric buses **Authors:** Luigi Pio Di Noia, Renato Rizzo, University of Napoli Federico II, Italy	In-person
17:05-17:20	**Xiaoyue Zhu, Zhejiang University, China** **Speech Title:** Overcoming propagation losses with intelligent gain metasurfaces **Authors:** Xiaoyue Zhu, Chao Qian, Hongsheng Chen, Zhejiang University, China	In-person

Conference Program

Oral Presentation Session		
17:20-17:35	**Cristian G. Colombo, Politecnico di Milano, Italy** **Speech Title:** Safety Assessment of Wireless Power Transfer for Implantable Cardiac Devices **Authors:** Cristian Giovanni Colombo, Michela Longo, Politecnico di Milano, Italy; Harutaka Suzuki, Ryosuke Ota, Tokyo Metropolitan University, Japan; Stefano Accinelli, Boston Scientific S.p.A.; Antonio Curnis, University of Brescia	In-person
17:35-17:50	**Luigi Pio Di Noia, University of Napoli Federico II** **Speech Title:** Detecting PMSM Current-Sensor Offset Faults from the Battery Current Signature **Authors:** Ciro Attaianese, Luigi Pio Di Noia, University of Napoli Federico II; Matilde D'Arpino, Center for Automotive Research Ohio State University; Mauro Di Monaco, University of Cassino and Southern Lazio	In-person
17:50-18:05	**Michela Longo, Politecnico di Milano, Italy** **Speech Title:** Modeling and Simulation of a Rear-Wheel-Drive Electric Vehicle: Case Study on Tesla Model Y **Authors:** Tommaso Robbiano, Matteo Fresia, Simone D'Ambrosio, Stefano Bracco, Universit`a di Genova, Genova, Italy; Andrea Di Martino, Nicoletta Matera, Michela Longo, Politecnico di Milano, Milan, Italy	In-person
18:05-18:20	**Michela Longo, Politecnico di Milano, Italy** **Speech Title:** Estimating Electric Vehicle Fast-Charging Infrastructure Needs under Uncertainty: A Monte Carlo Approach **Authors:** Daniele Martini, Cristian Giovanni Colombo, Michela Longo, Dario Zaninelli, Politecnico di Milano; Gianfermo Lupi, Giuseppe Mastroviti, A35 Brebemi SPA	In-person
18:20-18:30	**Closing Remarks**	
20:00-21:00	**Social Dinner**	

Keynote Speakers

Prof. Giambattista Gruosso, Politecnico di Milano, Milano, Italy

President of the IEEE Italy Section, Vice-Chair of the IEEE European Public Policy Committee

Biography: Giambattista Gruosso graduated from the Polytechnic University of Turin in 1999 and received his Ph.D. in Electrical Engineering in 2003. Since 2022, he has been with the Politecnico di Milano, Italy, where he is currently an Associate Professor. He has authored more than 150 scientific publications in journals and international conferences and has collaborated extensively with companies in the mobility sector through consulting and research activities. Prof. Gruosso is widely recognized as an expert in mobility and charging infrastructures. He is an active member of the IEEE Vehicular Technology Society (VTS), where he also serves on the Board of Governors and is a Distinguished Lecturer. He is currently President of the IEEE Italy Section, Vice-Chair of the IEEE European Public Policy Committee, and Scientific Director of the MADE Industry 4.0 Competence Center. At the Politecnico di Milano, he leads the Simlab 4.0 research group. His research interests span industrial automation, electrical power systems, data analytics, big data, etc.

Prof. Vinko Lesic, University of Zagreb, Croatia

Chair of IEEE Croatia Section, Vice Chair of IEEE Region 8 Member Activities

Biography: Vinko Lesic received his Ph.D. in 2014 from the University of Zagreb Faculty of Electrical Engineering and Computing (UNIZG-FER), where he is now an Associate Professor. His research focuses on control algorithms, optimization, and artificial intelligence for renewable energy systems, with particular expertise in convex optimization and machine learning for energy efficiency in buildings, transport, and microgrids. He has led over 12 research and technology transfer projects, authored more than 100 publications and 5 patents, and founded the startup accelerator "Imagine, Create, Innovate." An active IEEE volunteer, he serves as Vice Chair of IEEE Region 8 Member Activities and is the current Chair of the IEEE Croatia Section.

Fabio Pressi, A2A E-mobility

CEO and President of A2A E-Mobility

Biography: Fabio Pressi joined the A2A Group in January 2021 as CEO and President of A2A E-Mobility. He is a lecturer at LUISS Business School, Major of the Master's program in Management and Technology and Smart Mobility, and has over 20 years of experience as a top manager in the field of smart mobility technologies. Since March 2024, he is President of the Motus-E Association. In 2025, he published the book Digital mobility, edited by Luiss University Press. Born in 1966, he graduated in Electronic Engineering from the Polytechnic University of Turin and worked for over ten years at the Atlantia Group in the fields of digital product development and big data. In particular, he served as CEO of Infoblu S.p.A., where, within a few years, he transformed the company into one of the leading firms in leveraging big data collected from vehicles, developing national infomobility services for both the public and private markets. Previously, he was the Chief Data Officer at Telepass S.p.A., where he led the company's expansion into the digital payments business.

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