

RelStat-2023

“RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION”
(RelStat-2023)

Agenda

Date: 19-21 October 2023

Time: 9:00 – 18:00

Organised by: Transport and Telecommunication Institute (TSI)

Keynote Speakers

Invited speakers



DR. EVANGELOS BEKIARIS

Director, Hellenic Institute of Transport (HIT), Vice President, Centre for Research and Technology Hellas (CERTH), Greek representative, Horizon Europe Mission on "Climate Neutral and Smart Cities" Thessaloniki, Macedonia, Greece

Digital Twins for CCAM Applications – the Case of AUGMENTED CCAM and Beyond



PROF. DR. THOMAS SCHÜNING

Professor, Materials - Joining Technology - Laser Material Processing, Department of Engineering - Mechanical Engineering University of Applied Sciences, Supervisor of the Hyperloopteam "HyperpodX", Foundation and Head of "Institute of Hyperloop Technology", Emden/Leer, Germany

Digital Twin as a Tool for Project Development



PHD, ASSOC. PROF. Y. SONG (WOLF)

Associate Professor in Mechatronics Design, Department of Design Engineering at the Faculty of Industrial Design Engineering, University of Technology, Delft, The Netherlands
Human Digital Twin for Comfort Experience in Aviation



ASSOC. PROF. DR. MIGUEL MUJICA MOTA

Chair of Dutch Benelux Simulation Society Aviation Academy Amsterdam University of Applied Sciences/School of Engineering, Amsterdam, The Netherlands

Simulation in Aviation

Date	Time	(Aud.130)	(Aud. I)	(Aud. III)	
19.10.2023	09:00 – 10:00	Registration for RelStat'23			
	10:00 – 12:30	Opening and Plenary Session (Aud.130)			
	12:30 – 13:30	Lunch (Aud. 221)			
	13:30 – 15:30	Parallel Sessions			
		Session 3 Artificial Intelligent Applications	Session 5 Supply Chain Management	Session 1 Smart Solutions in Transport Systems	
	15:30 – 15:45	Break			
	15:45 – 17:30	Parallel Sessions		(Aud.710)	
		Session 7 Digital Twin Application	Session 2 Sustainable Transportation	Special Session eMediator Project Session	
18:30	Dinner (Restaurant LIDO)				
End of day 1					
20.10.2023	10:00 – 12:00	Parallel Sessions			
		Session 9 Digital Economy and Business	Session 8 Society Transformation	Session 4 Aviation	
	12:00 – 13:00	Lunch (Aud. 221)			
	13:00 – 14:00	Tutorial (Aud. 130)			
	14:00 – 15:30	Parallel Sessions			
		Session 9 Digital Economy and Business	Session 6 Transport Technologies	Session 10 Modern Trends in Higher Education & Research	
	15:30 – 16:00	Closure of the Conference (Aud. 130)			
16:30 – 18:30	Old Riga Town (Guided Walking Tour)				
21.10.2023	10:00 – 13:00	Social Program Walking Tour to Riga Central Market with Local Food Degustation and Observation Deck of Latvian Academy of Sciences			

PLENARY SESSION (AUD.130)

Join Zoom Meeting <https://us06web.zoom.us/j/89059269925?pwd=iuk2xsaqkbwbnyxpuh4n3pvw0fecp.1>

Moderator:	TSI Chairwoman of the Board, Prof. Irina Yatskiv (Latvia)	
10:00 – 10:10	Welcome Speech	Asst. Prof. Dr.sc.pol Juris Kanels , TSI Rector
10:10 - 12:30	Digital Twins for CCAM Applications – the Case of Augmented CCAM and Beyond	Dr. Evangelos Bekiaris Director, Hellenic Institute of Transport (HIT), Vice President, Centre for Research and Technology Hellas (CERTH) Greek Representative, Horizon Europe Mission on "Climate Neutral and Smart Cities", Greece
	Digital Twin as a Tool for Project Development	Prof. Dr.-Ing. Thomas Schüning Materials - Joining Technology - Laser Material Processing, Department of Engineering - Mechanical Engineering University of Applied Sciences Supervisor of the Hyperloopteam "HyperpodX", Foundation and Head of "Institute of Hyperloop Technology", Germany
	Human Digital Twin for Comfort Experience in Aviation	PhD MSc BEng, Assoc. Prof. Y. Song (Wolf) Mechatronics Design, Department of Design Engineering at the Faculty of Industrial Design Engineering, University of Technology, The Netherlands
12:30 - 13:30	Break	
13:30 – 17:30	Parallel Sessions	

THURSDAY, OCTOBER 19

THURSDAY, OCTOBER 19			
Time	Session 3 (Aud. 130) Online https://meetings.tsi.lv/b/jel-sch-rms-cs9	Session 5 (Aud. I) Online https://meetings.tsi.lv/b/jel-hxa-kch-ths	Session 1 (Aud. III) Online https://meetings.tsi.lv/b/jel-if7-jmo-7yn
	Artificial Intelligent Applications <i>Moderators:</i> <i>Prof. Dmitry Pavlyuk (Latvia)</i> <i>Prof. Evangelos Bekiaris (Greece)</i>	Supply Chain Management <i>Moderators:</i> <i>Asst. Prof. Juris Kanels (Latvia)</i> <i>Prof. Gunnar Prause (Germany)</i>	Smart Solutions in Transport Systems <i>Moderators:</i> <i>Prof. Irina Yatskiv (Latvia)</i> <i>Assoc. Prof. Paulius Skačkauskas (Lithuania)</i>
13:30 - 15:30	<i>Anomaly Detection for Intrusion Detection/Prevention Systems Using Machine and Deep Learning: Experimental Study and Feature Reduction Approach - Boriss Misnevs, Aleksandr Krivchenkov and Alexander Grakovski (Latvia)</i>	Development and Practical Application of Hybrid Decision-Making Model for Selection of Third-Party Logistics Service Providers - <i>Aleksandrs Kotlars (Latvia)</i>	Analysing Distribution Approaches for Efficient Urban Logistics - <i>Salar Salehi, Nicola Ippolito and Guido Gentile (Italy)</i>
	Development of a Conceptual Network for AI-Based Management and Leadership Applying Graph Theory - <i>Nicolas Dolle and Dmitry Pavlyuk (Germany, Latvia)</i>	Fashion Supply Chain Modeling as Major Area of Management Science and its Disconnect with Practice - <i>Berdymyrat Ovezmyradov (Latvia)</i>	Electric Kick Scooter Driving Simulation - Risks and Safety - <i>Mykola Karpenko, Olegas Prentkovskis, Paulius Skačkauskas (Lithuania)</i>
	Forecasting IT Project Completion Time: Artificial Neural Networks Approach - <i>Konstantin Dinar, Inna Stecenko, Boriss Mišņevs (Latvia)</i>	Transformation of Supply Chains in the Context of “Industry 4.0” - <i>Ieva Meidutė-Kavaliauskienė and Renata Činčkaitė (Lithuania)</i>	Graph-Based Approach for Personalised Travel Recommendations - <i>Francesco Maria Turno and Irina Yatskiv (Latvia)</i>
	Comparison of Classical Decision-Making Methodologies with AI-Based Decision-Making Methodologies Applied on Management Decisions - <i>Nicolas Dolle (Germany)</i>	Application of New Technologies in the Supply Chains of the Lithuanian Industrial Sector - <i>Ieva Meidute-Kavaliauskiene and Renata Činčkaitė (Lithuania)</i>	Optimizing Ride-Sharing Potential in New York City: a Dynamic Algorithm Analysis of Peak and Off-Peak Demand Scenarios - <i>Marzieh Afsari, Nicola Ippolito, Lory Michelle Bresciani Mistrice and Guido Gentile (Italy) ONLINE</i>
	Review of AI-Based Vision Detection Algorithms for Autonomous Mobile Robots - <i>Samuel Moveh, Emmanuel Alejandro Merchán-Cruz (Latvia) ONLINE</i>	The Issues on Digital Maturity of Wood-Based Supply Chain – Case Study - <i>Natalia Gnacy and Sylwia Werbińska-Wojciechowska (Poland)</i>	Smart City and Smart Port Concepts: a Conceptualisation for Digital Small and Medium-Sized Port-City Innovation Ecosystems - <i>Christopher Meyer, Laima Gerlitz and Gunnar Prause (Germany) ONLINE</i>
	A Case Study On Retroreflective Marker Usage in Industrial 3D Lidar Applications - <i>Maik Groneberg, Daniel Sopauschke, Martin Hünermund and Klaus Richter (Germany) ONLINE</i>	Inventory Management under Dependent Demand in the Conditions of Risk - <i>Valery Lukinskiy, Vladislav Lukinskiy, Darya Bazhina, Ekaterina Gazizova, Nikolay Nikolaevskiy (Russia) ONLINE</i>	The Problematical Issue of Protection of Commercial Secrets in Conducting Scientific Research in Business Institutions. Insights from the ePICenter project - <i>Darius Bazaras, Viktor Skrickij, Algirdas Šakalys, Raimondas Šakalys (Lithuania) ONLINE</i>
The Use of Artificial Intelligence to Convert Social Media Data Into Actionable Insights - <i>Ioseb Gabelaia (Latvia) ONLINE</i>			
15:30 -15:45	Break		

Time	Session 7 (Aud. 130) Online https://meetings.tsi.lv/b/jel-dpj-pxb-vel	Session 2 (Aud. I) Online https://meetings.tsi.lv/b/jel-p3a-pon-x0q	Special Session (Aud. 710) Online https://meetings.tsi.lv/b/jel-wi9-tfj-r9e
	<p>Digital Twin Moderators: <i>Prof. Emmanuel Alejandro Merchán-Cruz (Latvia)</i> <i>Prof. Thomas Schüning (Germany)</i></p>	<p>Sustainable Transport Moderators: <i>Prof. Alexander Grakovski (Latvia)</i> <i>Assoc. Prof. Paulius Skačkauskas (Lithuania)</i></p>	<p>eMediator Project Moderators: <i>Prof. Boriss Misnevs (Latvia)</i> <i>Prof. Igor Kabashkin (Latvia)</i></p>
	Digital Twin Concept for Managing Manual Sorting of Municipal Waste - <i>Robert Giel and Alicja Dąbrowska (Poland)</i>	On Safety Aspects of Ammonia as Marine Fuel - <i>Georg Finger and Gunnar Prause (Germany, Estonia)</i>	Mobility Education as a Service: General Concept, Model and Demo Portal - <i>Igor Kabashkin, Boriss Misnevs, Olga Zervina (Latvia)</i>
15:45	Cyber-Physical Waste Stream Control System – a Digital Twin Framework - <i>Robert Giel and Alicja Dąbrowska (Poland)</i>	Assessment of the Strategies of Maritime Transport Sector Organizations to Reduce the Negative Impact on the Environment - <i>Aidas Vasilis Vasiliauskas, Olga Navickienė (Lithuania)</i>	Organizational Model for the Mobility Education as a Service Ecosystem: a Multidimensional Approach - <i>Igor Kabashkin, Boriss Misnevs, Olga Zervina (Latvia)</i>
- 17:30	Framework for Digital Twins Concept Implementation in Internal Transportation Systems - <i>Robert Giel, Sylwia Werbińska-Wojciechowska and Klaudia Winiarska (Poland)</i>	Modelling of Hydrodynamics Processes in Liquefied Natural Gas Transportation Systems - <i>Vigale Semaskaite, Marijonas Bogdevicius, Tatjana Paulauskiene and Jochen Uebe (Lithuania)</i> ONLINE	Enhancing Competence-Based Job Skills Through Moodle: a Paradigm Shift in MOOC Applications - <i>Vasiliki Liagkou, Chrysostomos Stylios and Aikaterini Florou (Greece)</i> ONLINE
	The Role of 3D Laser Scanning in Historical Bulding Stock Analysis and Its Conceptual Development by the Method of Twinning Adaptation - <i>Nino Chachava, Malkhaz Lekveishvili, Giorgi Mikadze, Nikoloz Lekveishvili, Giorgi Sulashvili and Vazha Sulashvili (Georgia)</i>	Corporate Transition to Sustainable Low-Carbon Development as a Factor of Market Benchmarks' Dynamics - <i>Zokhid Rakhimov, Nadezhda Lvova, Svetlana Saksonova, Neli Abramishvili (Russia, Latvia)</i> ONLINE	Developing a Safer Educational Environment that Preserves Users' Privacy - <i>Vasiliki Liagkou, Sofia Sakka and Chrysostomos Stylios (Greece)</i> ONLINE
		Some Causes and Effects of Pressure Pulsation in a Hydraulic System Including the Impact on the Environment - <i>Michał Stosiak, Mykola Karpenko, Adam Deptula and Paulius Skačkauskas (Poland, Lithuania)</i> ONLINE	Competence Model Proposal for Mobility in Education as a Service - <i>José A. García-Berná, Juan M. Carrillo de Gea, Begoña Moros, José L. Fernández-Alemán, Boriss Mišņevs and Joaquín Nicolás-Ros (Spain, Latvia)</i> ONLINE
			Artificial Intelligence in the Implementation of Didactic Principles in a Novel Mobility Platform: the Case of the eMediator Project - <i>Małgorzata Gawlik-Kobylińska and Marcin Rojek (Poland)</i> ONLINE
18:30	Dinner (Restaurant LIDO, Krasta str., 76, Riga)		
End of day 1			

FRIDAY, OCTOBER 20

FRIDAY, OCTOBER 20			
Time	Session 9 (Aud. 130) Online https://meetings.tsi.lv/b/jel-3cv-2dj-8ov	Session 8 (Aud. I) Online https://meetings.tsi.lv/b/jel-mpn-219-9cv	Session 4 (Aud. III) Online https://meetings.tsi.lv/b/jel-1yh-8bs-agm
	Digital Economy and Business Moderators: <i>Prof. Inna Stecenko (Latvia)</i> <i>Assoc.Prof. Harald Kitzmann (Estonia)</i>	Society Transformation Moderators: <i>Prof. Irina Kuzmina-Merlino (Latvia)</i> <i>Assoc.Prof. Jelena Popova (Latvia)</i>	Aviation Moderators: <i>Prof. Igor Kabashkin (Latvia)</i> <i>Prof. Walter Neu (Germany)</i>
	Enhanced Economic Sustainable Evaluation of Operational Planning in Industrial Engineering - <i>Harald Kitzmann, Anna Strimovskaya, Elena Tsyplakova, Galina Sinko and Elena Serova (Estonia, Russia)</i>	The Spatial Planning System's Influence on Civic Participation Digital Transformation in Europe - <i>Laura Minskere, Jelena Salkovska and Anda Batraga (Latvia)</i>	Aviation Technical Support as a Service Model for Aircraft Operation of Small Airlines - <i>Igor Kabashkin and Vladimir Perekrestov (Latvia)</i>
10:00	Development of a Technical Solution Concept for Process and Data Mining in Organizations Focused and Applied on E-Mail Processes - <i>Nicolas Dolle (Germany)</i>	Navigating Italy's Growing Smart Working Landscape: Insights from Employee Cluster Analysis - <i>Melissa Berutti Bergotto, Mohamed Eldafrawi and Guido Gentile (Italy)</i>	Value Proposition Benchmarking: Case Study of Middle East Airlines - <i>Olga Zervina, Neil Rubens (Latvia)</i>
- 12:00	The Readiness of Port Logistics Services in the Caspian Sea Within the Eurasian Transport Corridor – Case Study of the Port of Aktau - <i>Anatoli Beifert and Aisulu Moldabekova (Germany, Kazakhstan)</i>	Drivers of Sports Globalization and Commercialization - <i>Daniil Kulikov, Irina Kuzmina-Merlino (Latvia)</i>	Choosing Optimal Maintenance Service Level Depending on Financial Model of Aircraft Maintenance Organization - <i>Danila Larin, Roman Fedorov, Timur Tyncherov and Vladimir Perekrestov (Latvia)</i>
	Water Transport Enterprises Competitiveness Estimation Model - <i>Natalia Maslii, Maryna Demianchuk, Valentin Ternovsky and Valerij Skribans (Ukraine, Poland, Latvia)</i>	Role Model for Independent Surveyors During the Covid-19 Pandemic and Similar Critical Situations - <i>Olga Navickienė, Aidas Vasilis Vasiliauskas (Lithuania)</i>	Suitability of Inventory Policies for Supply of Spare Parts in Aviation Industry - <i>Artem Kharlov, Jurijs Tolujevs and Berdymyrat Ovezmyradov (Latvia) ONLINE</i>
	Digital Connectivity and Increase in Labor Productivity: a Case Study of Sub-Saharan African Countries - <i>Etian Boress Kemgou Voptia and Yulia Stukalina (Latvia) ONLINE</i>	The Impact of "Quiet Quitting" on Overall Organizational Behavior and Culture - <i>Ioseb Gabelaia and Ramune Bagociunaite (Latvia, USA, Lithuania) ONLINE</i>	Strategies of Sustainability in the Aviation Industry: the Single European Sky Project - <i>Federico De Andreis, Filippo Mattavelli, Federico Maria Sottoriva and Federico Petrocchi (Italy) ONLINE</i>
		The Impact of User-Generated Marketing on Creating Greater Audience Connections and Brand Loyalty - <i>Ioseb Gabelaia and Jeffery W. McElroy (Latvia, USA) ONLINE</i>	Verification of Vibration Diagnostic Technique for Flow Path of Turbomachines - <i>Aleksey Mironov and Pavel Doronkin (Latvia) ONLINE</i>
12:00 -13:00	Break		

Tutorial (Aud.130)

Simulation in Aviation

13:00 -
14:00

Assoc.Prof, Dr. Miguel Mujica Mota, Chair of Dutch Benelux Simulation Society
Aviation Academy, Amsterdam University of Applied Sciences | School of Engineering, The Netherlands

Join Zoom Meeting <https://us06web.zoom.us/j/89700621127?pwd=bv4fNajmaQu6bb8539uKcWc8czXd5N.1>

Time	<u>Session 9 (Aud. 130)</u> Online https://meetings.tsi.lv/b/jel-3cv-2dj-8ov	<u>Session 6 (Aud. I)</u> Online https://meetings.tsi.lv/b/jel-g1b-lpb-hc5	<u>Session 10 (Aud.III)</u> Online https://meetings.tsi.lv/b/jel-hv9-sba-3r0
14:00 - 15:30	Digital Economy and Business <i>Moderators:</i> <i>Prof. Yulia Stukalina (Latvia)</i> <i>Prof. Svetlana Saksonova (Latvia)</i>	Transport Technologies <i>Moderators:</i> <i>Prof. Mihail Savrasovs (Latvia)</i> <i>Assoc.Prof. Mykola Karpenko (Lithuania)</i>	Modern Trends in Higher Education & Research <i>Prof. Irina Pticina (Latvia)</i> <i>Prof. Aliaksandr Puptsau (Lithuania)</i>
	Increasing the Significance of the Company's Integrated Reporting to Investors in the Financial Market - <i>Irina Kuzmina-Merlino, Ferangiz Abdurakhmanova (Latvia)</i>	<i>Overview of Factors and Methods for Analysis of Hyperloop Project - Aleksejs Vesjolijis (Latvia)</i>	Using the Transformative Power of Artificial Intelligence in the Management of a Modern University - <i>Yulia Stukalina, Olga Zervina (Latvia)</i>
	Talent Management Performance Assessment in the Digital Economy Context - <i>Samoilenko Jelena and Yulia Stukalina (Latvia)</i>	Experimental Modal Analysis for Identification of Laminated Glass Fiber Reinforced Plastic - <i>Aleksejs Safonovs, Andrejs Kovalovs, Andris Chate and Vladimir Kulakov (Latvia) ONLINE</i>	Artificial Intelligence as a Tool for Human-Machine Partnership in the Educational Process - <i>Ryhor Miniankou, Aliaksandr Puptsau (Lithuania)</i>
	The Impact of ESG on Performance of Latvian Companies Listed on Baltic Stock Exchange - <i>Ieva Kozlovskā, Svetlana Saksonova (Latvia)</i>	Natural Frequencies of GFRP Beam Under Tensile Axial Loads - <i>Vitalijs Kuzmickis, Andrejs Kovalovs, Andris Chate and Vladimir Kulakov (Latvia) ONLINE</i>	Differences in Research Performance Between Central Asian and Baltic States - <i>Gennady Gromov and Berdymyrat Ovezmyradov (Latvia)</i>
	Competency Model as a Factor in the Social Development of the Enterprise - <i>Oksana Skorobogatova (Latvia)</i>	Reliability of Redundant Autonomous Life Support Systems for Deep Space Habitation - <i>Sergey Glukhikh (Russia) ONLINE</i>	Student Academic Satisfaction Scale (SASS): Development and Validation - <i>Ishgaley Ishmuhametov (Latvia)</i>
	Prospects of Lending Development in Latvia: Problems and Solutions - <i>Natalia Konovalova (Latvia) ONLINE</i>	Analysis of BMW I3 Battery Charging Process - <i>Darius Juodvalkis and Marius Mazeika (Lithuania) ONLINE</i>	The New Axioms of Media Education between Algorithms, Mass Surveillance and Inclusivity Protections - <i>Alba Maria Gallo and Tonia De Giuseppe (Italy) ONLINE</i>
	Evaluation of Sustainability and Efficiency in Banking System of Latvia and Georgia - <i>Natalia Konovalova, Nino Mikiashvili (Latvia, Georgia) ONLINE</i>	Study of the Lubrication Properties of Biofuels and their Blends with Tire Pyrolysis Oil - <i>Tomas Mickevicius, Paulius Motvydas (Lithuania) ONLINE</i>	
15:30 -16:00	Closure of the Conference (Aud. 130) Join Zoom Meeting https://us06web.zoom.us/j/85349229251?pwd=mF14R5jLZaYkmgS5V4vYvnyvlMvjIS.1		
16:30 –18:30	Old Riga Town (Guided Walking Tour)		