

SPHERE Conference

'Mechanics of Transportation: Green, Safe and Smart'

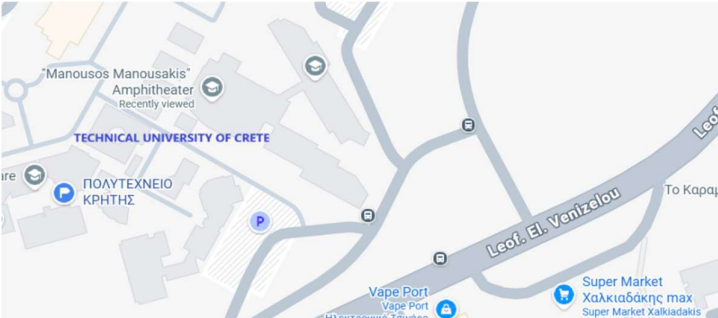
Agenda

Project title: Sustainable Transportation within the Framework of Green Deal

Project: 101128065

Acronym: SPHERE

Work package	Title
WP7	Dissemination and Exploitation
Task	Title
7.7	Promotion of ST and promotion of the project results

Dates	7 th – 8 th September 2026 (Arrival date: 6 th September 2026, Departure date: 9 th September 2026)
City	Chania, Greece
Meeting venue	Technical University of Crete (TUC)
Address	University Campus, Akrotiri Chania 73500
	 https://maps.app.goo.gl/3zTHcB4x3ih1biH88

Monday, 07 th September 2026		
Technical University of Crete in Chania - "Manousos Manousakis" Amphitheater		
08:30-09:30	Participant registration	
First Session:		
T7.7. Opening Ceremony		
09:30-10:00	Welcome speeches	-Prof. Konstantinos-Alketas Ouggrinis, Rector, Technical University of Crete -Prof. Dr. Nebojša Arsić, Rector, University of Pristina in Kosovska Mitrovica (UPKM) -Prof. Georgios E. Stavroulakis -SPHERE Project Coordinator -Representative of the Municipality of Chania

Sustainable transportation within the framework of green deal - SPHERE

Call: ERASMUS-EDU-2023-CBHE-STRAND-2

Project Number: 101128065

Second Session: Plenary Session		
10:00-10:20	Good Practices in Sustainable Urban Mobility in the City of Chania	Marina Michailidou Architect – Scientific Advisor to the Mayor of Chania, Session Chair: Dr. Charalampos Litos
10:20-10:40	Smart Noise Monitoring and Management for Safer and Greener Maritime Operations: A Review	Afroditi Doulkeridou ¹ , Nikolaos M. Papadakis ² , Konstantinos Marakakis ² , Georgios E. Stavroulakis ² ¹ Merchant Marine Academy of Crete, ² Technical University of Crete
10:40-11:00	Sustainable Transport in Higher Education: Curriculum Development in Line with the Green Agenda and “Green, Safe and Smart” Mobility Principles – A Case Study of the University of Pristina in Kosovska Mitrovica within the Erasmus+ SPHERE Project	Aleksandra Petrović, Nebojša Arsić, Predrag Stanojević, Miloš Pljakić University of Pristina in Kosovska Mitrovica, Faculty of Technical Sciences, Kosovska Mitrovica, Serbia
11:00-11:20	Coffee Break	
Third Session: Sustainable Transportation and Smart Mobility		
11:20-11:40	Optimization of Vehicle Exploitation Parameters in Carsharing Systems for Sustainable Urban Mobility in Uzbekistan	Bobaxonov Mashxurbek Maqsud o’g’li Asia International University
11:40-12:00	Project-Based Teaching of Sustainable Vehicle Engineering through Shell Eco-Marathon Participation	F. Umerov, S. Asanov Department of Mechanical and Aerospace Engineering, Turin Polytechnic University in Tashkent
12:00-12:20	Vehicle Diagnostics as a Core Component in the Education of Future Engineers for Green and Smart Transportation	S. Asanov, F. Umerov Department of Mechanical and Aerospace Engineering, Turin Polytechnic University in Tashkent
Fourth Session: Driver Training, Simulation and Safety		
12:20-12:40	Analysis of Driving Mistakes on a Simulator	Turaev Azamat Alisherovich Kimyo International University in Tashkent
12:40-13:00	Analysis of Modern Approaches to Assessing Driver Professionalism and the Potential of Driving Simulators for Their Application	Turaev Azamat Alisherovich, Xudayberdiev Ziyadilla Ibadillayevich Kimyo International University in Tashkent
13:00-14:00	Lunch Break	
14:00-14:20	The Importance of Using Driving Technologies in Emergency Situations in Driver Training	A. Baboev Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek
14:20-14:40	Determination of the Critical Speed of a Vehicle during Skidding Using a Virtual Laboratory	S. Usmanov, Z. Abdurakhmanov Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek

Fifth Session: Traffic Flow and Smart Urban Infrastructure		
14:40-15:00	Assessment of the Comfortability and Safety of Bicycle Ramp Infrastructure: A Case Study of Shota Rustaveli Street in Tashkent	E. Islamov, O. Meliqoziyev Kimyo International University in Tashkent, Uzbekistan
15:00-15:20	Modeling of Traffic Flow at Controlled Intersections of Urban Streets	R. Abdurakhmanov Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek
15:20-15:40	Improving Road Traffic Efficiency through Traffic Flow Movement Modeling	R. Abdurakhmanov Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek
15:40-16:00	The Importance of Intelligent Parking Systems in Urban Conditions	Salakhdin A. Usmanov Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek
16:00-17:00	Project management related issues	Aleksandra Petrovic, UPKM All partners
17:00-17:20	Conclusions of the First Day	All partners
19:30	Conference Dinner Address to be defined	

Tuesday, 8 th September 2026		
Technical University of Crete in Chania - "Manousos Manousakis" Amphitheater		
09:30-10:00	SPHERE participant registration	
Sixth Session:		
Urban Mobility, Driving Cycles and Road Performance		
10:00-10:20	Analysis of the Effect of the Introduction of Autonomous Vehicles in Complex Traffic Scenarios	Felipe Jiménez, Marina Espejo, Juan Loma, Guillermo Sánchez, Slobodan Bojanic Universidad Politécnica de Madrid, Spain
10:20-10:40	Determining Time Losses of Vehicles Due to Traffic Congestion at Intersections and Junctions of Urban Main Roads	R. Abdurakhmanov Jizzakh Branch of the National University of Uzbekistan named after Mirzo Ulugbek
10:40-11:00	Computational Study of Passenger Car Driving Cycles in Urban Conditions	Fattohjonov B.R., Mukhitdinov A.A., Abdurazzokov U.A., Ziyaev K.Z. Department of Vehicle Engineering, Tashkent State Transport University
11:00-11:20	Performance Assessment of Variable-Depth Cultivation Techniques in Reducing Agricultural Energy Consumption	Tadjimuratova Aziza, Ruzimov Sanjarbek Turin Polytechnic University in Tashkent
11:20-11:40	Influence of Road Roughness on Ride Comfort and Energy Demand of Road Vehicles	Nurmukhammad Abdukarimov, Sanjarbek Ruzimov Turin Polytechnic University in Tashkent, Uzbekistan
11:40-12:00	Coffee Break	
Seventh Session:		
Vehicle Emissions and Environmental Assessment		
12:00-12:20	Expert Evaluation of the Environmental Impact of a Passenger Vehicle	Numanov M.Z., Mukhitdinov A.A., Ziyaev K.Z. Department of Vehicle Engineering, Tashkent State Transport University

12:20-12:40	Dynamics of Changes in the Amount of CO ₂ in Exhaust Gases during Engine Warm-Up and under Load	Ravshanbekov J.A., Mukhitdinov A.A., Abdurazzokov U.A. Department of Vehicle Engineering, Tashkent State Transport University.
12:40-13:00	Development of an Improved Method for Estimating Harmful Exhaust Emissions from Gasoline Vehicles Using On-Board Diagnostic Data	Turgunov D.Sh., Mukhitdinov A.A., Ziyaev K.Z. Department of Vehicle Engineering, Tashkent State Transport University
Eighth Session: Electrification and Energy Management		
13:00-13:20	Energy Efficiency Assessment of Electric Buses	Mukhitdinov A.A., Kasimov O.K., Saidov A.I., Abdurazzokov U.A. Department of Vehicle Engineering, Tashkent State Transport University
13:20-13:40	A Comparative Study of Vehicle Electrification: Evaluation of ICEVs, MHEVs, HEVs, and NEVs	Shafkatbek Alimov, Komiljon Tulaganov, Olimjon Tuychiev Department of Mechanical and Aerospace Engineering, Turin Polytechnic University in Tashkent
13:40-14:00	Dynamic Programming-Based Energy Management of Hybrid Electric Vehicles with Backward Recursion under Final SOC Constraint	Gulnora Shermuxammad Yakhshilikova Department of Mechanical and Aerospace Engineering, Turin Polytechnic University in Tashkent
Ninth Session: Advanced Materials, Structures and Design for Smart and Safe Transportation		
14:00-14:20	Synergies in the Design of Highly Integrated Transport Aircraft – From Multidisciplinary Integration to Acoustic Prediction	Lukas Outzen, Sabine C. Langer Technische Universität Braunschweig, Germany
14:20-14:40	Homogenization-Based Numerical Investigation of Auxetic Cellular Structures for Automotive Bumper Energy Absorbers	Iraklis Papadokostakis ¹ , Ioannis Ntintakis ¹ , Konstantinos Marakakis ² , Georgios E. Stavroulakis ² ¹ Hellenic Mediterranean University, ² Technical University of Crete
14:40-15:00	Accuracy against reliability: circuit depth and data re-uploading in a hybrid quantum-classical PINN for the dynamic Euler-Bernoulli beam	Nikolaos Schetakis ^{1,2} , Alik D. Mouratidou ¹ and Georgios E. Stavroulakis ¹ ¹ Technical University of Crete ² Quantum Innovation IKE
15:00-16:00	Lunch Break	
16:00-16:20	Physics-informed neural networks for vehicle suspension dynamics: towards smart and data-efficient transportation systems	Emmanouil Pyrovolakis, Alik Mouratidou, Konstantinos Marakakis, Georgios E. Stavroulakis Technical University of Crete
16:20-16:40	Smart PLC-Controlled Passive Shunt Piezoelectric Systems for Vibration Reduction in Transportation Structures: An Experimental Study	Evangelos Synnefakis, Konstantinos Igglezakis, Maria-Styliani Daraki, Konstantinos Marakakis, Georgios E. Stavroulakis Technical University of Crete
16:40-17:30	General discussion and closure of the meeting	All partners