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REPORT

Study mobilities and training for students at EU partner universities

Deliverable 4.2

UDJG

Version 1.2
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Contents

Record of changes

Version#	Status of document	Date	Authors	Comments
0.6	First draft	29.03.26	RTU, UDJG, NKUA	First consolidated version
1.0	Second draft	01.04.26	UDJG, I. Ion	Consolidated report
1.1	Ready version	02.04.26	RTU A. Zabašta	Editorial adjustments
1.2	Final version	10.04.26	UDJG, I. Ion, RTU A. Zabašta	Adjustments according to the PO recommendations

Quality assurance

No.	Date	Version	Approved by
1	03.04.26	1.1	N. Kuņicina, RTU

Introduction

Following the project specific objective "Strengthen the capacities of Moldavian and Ukrainian HEIs to network effectively in research, scientific and technological innovation" the EU, MD and UA partners arranged three schools for students in the premises and laboratories of Riga Technical University (RTU), "Dunarea de Jos" University of Galati (DJUG) and National and Kapodistrian University of Athens (NKUA) with physical presence and on-line mode.

In these schools, students were introduced in the EU university's education and research practices (focusing on innovative pedagogies, intercultural skills, student centred, critical thinking, and challenge-based learning, bridging theoretical knowledge with practical, real-world application), gained additional knowledge related to new developed curricula, tested and evaluate particular elements of newly developed curricula, acquired a mindset of QA procedures, tested particular elements of the industry-oriented courses. Students experienced diverse cultures and gain international experience, which helps them acquire "soft skills" and gain a deeper understanding of their career paths.

The partners successfully implemented the activity, obtaining high-quality results. The number of students expected to be retrained was exceeded by almost 30% (93 instead of 72 planned).

Preparation session on Webex

Prior to the training week, students received information about the structure of the DIGITRANS Students Training School and the topics that would be covered during the program. Instructions regarding the online platform, participation requirements, and training objectives were provided to all registered participants.

The training school was organized and hosted by the Riga Technical University (RTU), "Dunarea de Jos" University of Galati (DJUG) and National and Kapodistrian University of Athens (NKUA), Evripos Campus, and delivered online using the Webex platform.

The working plan

Riga Technical University (RTU)

DAY 1 – MONDAY, 12 JANUARY 2026 (Joint morning with Workshop & MC)

109 room, Zundas Str. 8.

09:00–09:30 Registration and Welcome Coffee (joint with Workshop & MC Meeting)

09:30–10:00 Opening Session – RTU Management and Project Coordinator

10:00–11:15 Introduction to the DIGITRANS Student School (structure, outcomes, project-based work)

Azenes 12/1, Room 525 and lab 219

11:15–11:30 Coffee Break

11:30–13:00 RTU: Prof. Nadežda Kuņicina **and the Laboratory 219 manager.** Classroom sessions: digital transformation in engineering education; group formation; project topics.

13:00–14:15 Lunch Break

14:30–15:15 Visiting od Dizaina factory SkyLAB https://www.youtube.com/watch?v=2zKy5WNSvAE Dr. Elina MIkelsone

15:15 – 16:30 Robot test flight Dr. Armands Senfelds, Pavels Maksimkins & Andrejs Stupans

16:30–17:00 Coffee Break

17:00–18:00 Student laboratory work (continued)

DAY 2 – TUESDAY, 13 JANUARY 2026

Room 525

09:00–10:30 RTU lecture – Prof Ilja Galkins, Introduction to programmable logic chips

10:30–10:45 Coffee Break (fully aligned with Workshop & MC Meeting)

10:45–12:45 Classroom sessions:

- LNTU, Prof Valerii Dembitskyi: lecture on Digital Soft Skills for Engineers;
- CPNU, Prof Volodymyr Kazymyr: lecture (topic to be confirmed)

Room 525 and lab 219

13:00–14:00 Lunch Break

14:00–15:30 KTU Lecture – Prof. Rasa Bruzgiene: From Strategy to Simulation: Fortifying Cybersecurity in Industry X ***Room 522***

15:30–15:45 Coffee Break

15:45–17:00 Student laboratory work (continued)

DAY 3 – WEDNESDAY, 14 JANUARY 2026

Room 525

09:00–10:30 KTU session – Assoc. prof. Rasa Bruzgiene, Table-top game with integrated AI agent "NOrisk" (cybersecurity simulation exercise)

10:30–10:45 Coffee Break

10:45–12:45 KTU Assist. prof. dr. Dangis Rimkus and Assist. prof. dr. Donatas Sandonavičius. Cyber security for everyone. Lecture, theory. ***Room 522***

12:45–13:00 Guided discussion and Q&A

13:00–14:00 Lunch Break

14:00–15:30 RTU Dr Ansis Avotiņš**:** Introduction to energy efficient LED lighting systems. Lecture.

15:30–15:45 Coffee Break

Room 525

15:45–17:15 RTU: Assoc.prof. Nadezda Zenina Intelligent Transportation Systems role in supporting the development of smart city

17:15- 18:00 Student laboratory work 219

DAY 4 – THURSDAY, 15 JANUARY 2026

Room 525 and lab 219

09:00–11:00 Assist. prof. dr. Donatas Sandonavičius, Topic 3. "Social IT Security: Detecting and Preventing Scams and Phishing Attacks", 90min. theory. ***Room 522***

11:00–11:15 Coffee Break

11:15–13:00 KhNAHU, Andrii Hnatov, Lecture: History of Electric Vehicles and Hybrids. Electric Vehicles Classification

13:00–14:00 *Lunch Break*

14:00–15:30 Student laboratory work: finalisation of prototypes; preparation for Student Pitch

15:30–15:45 *Coffee Break (students)*

15:45–17:00 Pitch coaching and final preparations

DAY 5 – FRIDAY, 16 JANUARY 2026

Room 525 and lab 219

09:00–11:00 Final classroom sessions: RTU, prof Ingars Steiks - Kuka robot (lecture + laboratory)

11:00–11:15 Coffee Break

11:15–13:00 Final classroom sessions: RTU, prof Ingars Steiks - Kuka robot (lecture + laboratory)

13:00–14:00 Lunch Break

14:00–16:00 STUDENTS PITCH SESSION: presentation of innovative prototypes

16:00–17:00 Closing of the DIGITRANS Student School; awarding of Certificates of Attendance

"Dunarea de Jos" University of Galati (DJUG)

DAY 1, MONDAY, FEBRUARY 9, 2026

Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01

Activity	**Time**
Registration, administrative procedures	**9:00 – 9:30**
Welcome by DJUG	**9:30 – 9:45**
Introduction to the DIGITRANS Student School (Overview schedule + main goals of the Training School)	**9:45– 10:00**
Introducing of school participants	**10:00 – 10:30**
Photo of the group	**10:30 – 10:45**
COFFEE BREAK	***10:45 –11:00***
Presentation of "Dunarea de Jos" University of Galati	**11:00 – 12:00**
Visit of laboratories (ship model testing pool; welding lab, material science lab; mechatronic lab etc.)	**12:00 – 13:00**
LUNCH	***13:00 – 14:00***
Classroom session: (lecture with examples) CAD in the Automotive Industry	**14:00 – 15:45**
COFFEE BREAK	***15:45 –16:00***
Classroom session: (lecture) Hydrogen in automotive sector	**16:00 – 17:30**

DAY 2, TUESDAY, FEBRUARY 10, 2026

Building Workshop School (ITP), 3 Calea Prutului Street, Room ITP 04

Classroom session: (lecture and practice) Electric and hybrid car testing	**9:00 – 13:00**
LUNCH	***13:00 –14:00***

Classroom session: (lecture) Skills in Technical Diagnostics of Vehicle	**14:00 –15:30**
COFFEE BREAK	***15:30 – 15:45***
Classroom session: (lecture) Economic and Environmental Impact of Electric Vehicles	**15:45 – 17:15**
Cultural event: Galati city tour	**17:15 – 18:30**
DAY 3, WEDNESDAY, FEBRUARY 11, 2026	
Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01	
Visit to the automotive component manufacturer Yazaki Company, Braila	**9:00 – 13:30**
LUNCH	***13:30 – 14:30***
Visit to the APAN Automobile, Braila & Galati	**14:30 –17:00**
Cultural event: Visit of Natural Science Museum Complex Galati	**17:00 – 18:30**
DAY 4, THURSDAY, FEBRUARY 12, 2026	
Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01	
Classroom session: (lecture and practice): maintenance, inspection, diagnosis, repair, and reconditioning of automotive. TRANSURB SA Galati https://transurbgalati.ro/	**9:00 – 13:00**
LUNCH	***13:00 – 14:00***
Classroom session: (lecture) Use of alternative fuels in transportation	**14:00 – 15:30**
COFFEE BREAK	**15:30 – 15:45**
Classroom session: (lecture) Advanced technologies of energy conservation in internal combustion engines	**15:45 – 17:00**
DAY 5, FRIDAY, FEBRUARY 13, 2026	
Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01	
Classroom session: (lecture) Computer-aided design (CAD) in automotive development	**9:00 – 10:30**
COFFEE BREAK	**10:30 – 10:45**
Classroom session: (lecture) CFD use in automotive engineering	**10:45 – 12:15**
LUNCH	**12:15 – 13:15**
Classroom session: (lecture and practice) Recent advances in vehicle dynamics	**13:15 – 14:45**
COFFEE BREAK	**14:45 – 15:00**
Classroom session: (lecture) Advanced Materials in Automotive Engineering	**15:00 – 16:00**
Closing of the DIGITRANS Student School; awarding of Certificates of Attendance	**16:00 – 17:00**

National and Kapodistrian University of Athens (NKUA)

Day	Date	Session / Topic

Day 1	2 March 2026	Opening Session; Introduction to Microgrids; Network Security Fundamentals
Day 2	3 March 2026	Microgrid Modeling and Optimization; Public Key Cryptography and Message Authentication
Day 3	4 March 2026	Microgrid Design Tools Demonstration (HOMER, REopt); Introduction to Inverter Design and Simulation
Day 4	5 March 2026	Microgrid Analysis using Xendee; Power Electronics Concepts and Onboard Charger Architecture
Day 5	6 March 2026	Dual Active Bridge Converter Analysis; Simulation and Charging Operation; Closing Session

The arrangement of the schools for the students

The DIGITRANS Students Training School was organized as an intensive five-day training activity aimed at strengthening students' knowledge in modern electrical engineering technologies related to digitalized energy systems.

The program combined theoretical lectures with demonstrations and practical examples covering several technological domains relevant to modern engineering education.

The training topics focused on three main thematic areas:

Riga Technical University (RTU)

The Student School addressed a broad spectrum of topics relevant to digital transformation in engineering education. Core thematic areas included:

- **Digital transformation in engineering education**, including curriculum innovation and project-based learning approaches.
- **Programmable logic and embedded systems**, introducing students to modern hardware platforms and digital control concepts.
- **Cybersecurity and digital resilience**, with a strong emphasis on practical applications, including simulations, table-top exercises with AI-supported tools, and social IT security (scam and phishing detection).
- **Energy efficiency and sustainable technologies**, such as energy-efficient LED lighting systems and intelligent transportation systems for smart cities.
- **Robotics and automation**, including hands-on laboratory sessions with robotic systems (e.g., KUKA robots) and applied demonstrations such as robot test flights.
- **Electric mobility**, covering the history, classification, and technological evolution of electric and hybrid vehicles.
- **Digital soft skills**, supporting students' ability to work in interdisciplinary teams, communicate effectively, and engage with real-world engineering challenges.

The five-day training programme combined lectures, laboratory work, site visits, and project-based learning to strengthen students' digital, technological, and transversal competences aligned with Industry 4.0 and sustainable engineering education.

The training brought together academic staff and students from multiple partner universities and was organised in close coordination with project meetings, ensuring coherence between educational

activities and project objectives. The programme structure followed a progressive learning logic, moving from foundational concepts of digital transformation towards applied laboratory work and student-driven innovation.

The school was attended by **22** students and **7** professors from Kharkiv National Automobile and Highway University (KhNAHU), Chernihiv Polytechnic National University (CPNU), Lutsk National Technical University (LNTU), Technical University of Moldova (UTM), Alecu Russo Balti State University (USARB) and Cahul State University B.P. Hasdeu (USC).

"Dunarea de Jos" University of Galati (DJUG)

The school program blends theoretical coursework, hands-on experience in university laboratories and research centres, demonstration-based site visits and cultural/tourist activities (museum visits and city tour). It was designed to bridge the gap between academic theory and real-world application in the field of automotive and transport engineering.

The studied topics includes:

- use of CAD and CFD in the automotive industry;
- use of hydrogen and alternative fuels in transport;
- economic and environmental impact of electric vehicles;
- practical aspects related to testing, maintenance, inspection, diagnosis, repair, and reconditioning of automotive;
- advanced materials used in automotive industry**.**

The purpose of school was to prepare students (the workforce) for Industry 4.0, for smart manufacturing by integrating digital technologies, and artificial intelligence with practical, hands-on experience, a workforce capable of managing the real-world automotive and transport engineering and the current industry shifts, such as electric vehicles (EVs), and sustainable mobility.

The school also included introducing students to the university education system in Romania/Europe.

The number of participating students from the UA and MD universities: 20 onsite + 13 online = **33**

The number of participating professors from the UA and MD universities: **3**

National and Kapodistrian University of Athens (NKUA)

The training topics focused on three main thematic areas:

- microgrid design and modeling tools
- cybersecurity in energy systems
- inverter technologies and EV onboard charger design

The lectures and demonstrations were delivered by academic staff from NKUA. During the preparation phase, 38 students from partner universities registered for the training school (annex 4, sensitive). According to the Webex attendance reports and daily attendance lists, between 25 and 27 students actively participated in the sessions throughout the week (annex 5, sensitive).

The training school also strengthened collaboration among partner universities and provided students with exposure to modern digital energy technologies, contributing to the DIGITRANS project objective of modernizing engineering education and promoting digital competencies.

Alternative Learning Arrangements for CPNU Students

Due to the challenging security and communication conditions in the Chernihiv region during the period of the DIGITRANS Students Training School, representatives and students from Chernihiv Polytechnic National University were unable to participate in the scheduled online sessions because of significant disruptions to internet connectivity. To mitigate the impact of these circumstances and ensure that students could still benefit from the training activities, the local project coordinator organized alternative study sessions at the university level.

These sessions were conducted using the training materials provided by the organizers through the project's shared repository, including presentation slides and recordings of the training school lectures. Students followed the training content under the supervision of the local academic coordinator, allowing them to review the key topics and learning materials presented during the event.

Through this approach, students from Chernihiv Polytechnic National University were able to access the educational content of the training school despite the connectivity limitations. Documentation of these locally organized sessions, including the list of participating students and screenshots of the activities, has been collected and included in the annexes of the CPNU report (annexes 6 and 8).

During the preparation phase, 38 students from partner universities registered for the training school (annex 4, sensitive, not submitted). According to the Webex attendance reports and daily attendance lists, between 25 and 27 students actively participated in the sessions throughout the week (annex 5, sensitive, not submitted).

The lectures and demonstrations were delivered by academic staff from NKUA.

Training Content and Learning Approach

Riga Technical University (RTU)

A distinctive feature of the Student School was its strong emphasis on **hands-on learning and real-world exposure**. Students participated in:

- laboratory-based prototyping and experimentation,
- site visits to innovation environments (e.g., SkyLAB design factory),
- applied demonstrations of advanced technologies,
- guided coaching sessions focused on pitching and innovation communication.

This approach enabled students to connect theoretical knowledge with practical implementation, reinforcing the DIGITRANS objective of bridging university education and industry-relevant competencies.

"Dunarea de Jos" University of Galati (DJUG)

This report provides an overview of modern automotive engineering, covering design simulation, alternative fuels, electric vehicle impacts, practical maintenance, and advanced materials.

1. CAD and CFD in the Automotive Industry

Computer-Aided Design (CAD) and Computational Fluid Dynamics (CFD) are indispensable in modern vehicle development, reducing reliance on expensive physical prototypes and accelerating R&D cycles.

- **CAD Applications:** Used for creating detailed 3D models, optimizing structural lightweighting, and improving interior ergonomics. CAD data serves as the foundation for CAE simulations.
- **CFD Applications:**
    - **Aerodynamics:** Optimizing drag coefficients to improve fuel efficiency and EV range, particularly in styling smooth surfaces to reduce turbulence.
    - **Thermal Management:** Modeling airflow for battery cooling and HVAC systems in electric vehicles.
    - **Internal Flows:** Simulating fuel combustion, intake/exhaust manifold performance, and lubrication flows within gearboxes.
- **Emerging Trends:** The combination of AI (artificial intelligence) with CFD allows for real-time simulation, enabling faster iterative design improvements.

2. Hydrogen and Alternative Fuels in Transport

Hydrogen is a promising zero-emission fuel, crucial for decarbonizing sectors where electrification is impractical (e.g., long-haul trucking, shipping, and aviation).

- **Use Cases:**
    - **Fuel Cells (FCEVs):** Highly efficient for long-range, heavy-duty transport, providing faster refueling times and higher payload capacities compared to batteries.
    - **Internal Combustion Engines (H2ICE):** A "drop-in" or modified solution for immediate decarbonization, though less efficient than fuel cells.
- **Storage and Infrastructure:** Hydrogen is stored as high-pressure gas (350–700 bar) or liquid (cryogenic). Type IV tanks (carbon fiber with polymer liner) are preferred for transport.
- **Challenges:** High cost of clean "green" hydrogen production, infrastructure requirements, and low volumetric density requiring large storage volumes.
- **Other Alternative Fuels:** Biofuels and synthetic "e-fuels" (methane, ammonia) serve as complementary solutions, allowing the use of existing engine architectures.

3. Economic and Environmental Impact of Electric Vehicles (EVs)

EVs are a critical part of the transition to sustainable transport, offering lower tailpipe emissions but posing initial high-cost barriers.

- **Environmental Impact:** EVs produce up to 89% fewer lifetime emissions compared to ICE vehicles, especially when powered by clean grids. However, battery manufacturing is energy-intensive, generating up to 80% more emissions during production than conventional cars.
- **Economic Impact:** While EV purchase prices are higher, lower maintenance costs and energy savings (fuel cost advantage) make them competitive in the long term (estimated 10-year payback in Europe).
- **Battery Recycling:** Up to 95% of battery materials (lithium, cobalt, nickel) can be recovered, mitigating raw material supply risks.

4. Practical Aspects of Automotive Service and Maintenance

The shift toward complex, software-defined vehicles necessitates advanced diagnostic capabilities.

- **Diagnostics:** Modern diagnostics rely on OBD-II scanners to identify codes, but advanced diagnostics now involve interpreting sensor data to address issues like brake fade, powertrain, and HVAC failures.
- **Maintenance & Repair:** High-voltage systems in EVs require specialized safety training. Key maintenance tasks for EVs include battery thermal management system inspections and software updates, rather than oil changes.
- **Inspection:** Tailpipe emission testing (NDIR) remains crucial for internal combustion engines to verify that repairs have reduced pollutants, especially in areas with strict environmental regulations.

5. Advanced Materials in the Automotive Industry

The demand for lightweight vehicles, particularly EVs, drives the adoption of advanced materials to extend range.

- **Lightweighting:** Increased use of high-strength steel, aluminium alloys, and carbon fiber composites reduces vehicle weight without sacrificing crashworthiness.
- **Battery Materials:** Development focuses on materials that improve energy density (kWh per kg) and faster charging capability.
- **Additive Manufacturing (3D Printing):** Used for prototyping, jigs/fixtures, and low-volume production of complex parts, allowing for "generative design" optimization (producing organic, complex geometries that reduce weight).

National and Kapodistrian University of Athens (NKUA)

The first thematic module addressed microgrid technologies and distributed energy systems. Students were introduced to the concept of microgrids as decentralized energy systems that integrate distributed generation, energy storage systems, and controllable loads. The lectures explained the ability of microgrids to operate in both grid-connected and islanded modes, which increases system resilience and reliability.

Participants were also introduced to modelling approaches used to evaluate generation capacity, storage sizing, economic performance, and system stability. Optimization techniques such as Mixed Integer Linear Programming (MILP) were presented as commonly used methods for minimizing system costs while satisfying operational constraints. Several software tools for microgrid analysis were demonstrated, including HOMER QuickStart, REopt, and Xendee, which support the techno-economic evaluation and simulation of microgrid configurations.

The second module of the training school focused on cybersecurity in digital energy infrastructures. Participants were introduced to the basic principles of information security, including confidentiality, integrity, availability, authenticity, and accountability. The sessions explained both symmetric and asymmetric cryptographic techniques used to secure communication channels in digital systems. Algorithms such as DES and AES were presented as examples of symmetric encryption methods, while the RSA algorithm was discussed in the context of public-key cryptography and secure key exchange. Students also learned about techniques used to ensure message authenticity and integrity, including hash functions, message authentication codes, and digital signatures. The training addressed common cyber threats such as man-in-the-middle attacks and explained the role of certificate authorities in verifying digital identities.

The third module addressed power electronics systems used in electric mobility and renewable energy applications. Participants were introduced to the structure of inverter systems, including switching devices, control circuits, and filtering components. The lectures explained the role of inverters in bidirectional energy conversion between the electric vehicle battery and the electrical grid, supporting both G2V (grid-to-vehicle) and V2G (vehicle-to-grid) operating scenarios. The architecture of an electric vehicle onboard charger was presented, consisting of a three-phase AC-DC converter followed by a dual active bridge (DAB) DC-DC converter. The training explained how phase-shift modulation is used to control the direction and magnitude of power transfer between the grid and the vehicle battery. Simulation examples illustrated the interaction between system components and demonstrated how the system regulates DC-link voltage and charging current in real time.

The students training in NKUA was conducted in online mode. The decision about the mode of training was taken during the proposal development phase, taking into account the operational conditions of the department conducting the project. At that time, extensive renovation and restructuring works were underway in the department's laboratories. These works were expected to significantly limit the

availability and proper functioning of the facilities, potentially causing delays or disruptions to the implementation of in-person training activities. To mitigate these risks and ensure the smooth, timely, and uninterrupted delivery of the training, it was decided to adopt an online format, because this approach provides the necessary flexibility and ensured continuity and quality of the educational activities, regardless of physical infrastructure constraints. The delivery of the training school in an online format was provided in line with the approved project proposal. No travel costs are foreseen for this event.

Overall Assessment and Feedback from the Trainees

Riga Technical University (RTU)

The DIGITRANS Student School at RTU successfully delivered an intensive, multidisciplinary training programme that:

- enhanced students' digital and technological competences,
- promoted project-based and experiential learning,
- strengthened international and inter-institutional collaboration,
- and contributed directly to the project's objectives of modernising engineering education in line with digital transformation and sustainability principles.

The training serves as a strong example of effective integration of education, research, and innovation within the DIGITRANS project framework.

"Dunarea de Jos" University of Galati (DJUG)

The overall assessment of students' training school at Galati in automotive engineering shows a satisfactory to very satisfactory performance level, with students generally possessing the required knowledge and skills to perform assigned jobs in the industry. While theoretical knowledge often exceeds expectations, there is a consistent, significant gap between university training and industry requirements, requiring improved practical, hands-on training.

National and Kapodistrian University of Athens (NKUA)

Overall, the DIGITRANS Students Training School successfully provided participants with interdisciplinary knowledge combining energy systems engineering, cybersecurity, and power electronics technologies. The activity also strengthened collaboration among partner universities and supported the DIGITRANS project objective of modernizing engineering education and promoting digital competencies in higher education institutions.

The hosting universities: RTU, UDJG and NKUA arranged the surveys of the students at the end of each school. All surveys were conducted using Google forms anonymously to get real students' perception about the schools. The general perception of the schools was **highly positive**, for example, we can see the students' responses concerning "Overall Satisfaction and Experience of the school" (students' school in Riga).

- **76%** of respondents *strongly agreed* that the overall school experience was positive.
- **18%** *agreed* with this statement.
- Only **6%** expressed a *neutral* position.
- No negative responses were recorded.

This indicates a strong alignment between the school's objectives and participant expectations, as well as a consistently positive learning environment.

Conclusions

All 3 student schools were successfully completed. According to the collected feedback from trainees, both students and teachers reported very high satisfaction with academic quality, program, organisation, and outcomes.

Training schools based on updated and industry-aligned curricula, connecting theoretical knowledge with practical applications, have made a substantial contribution to developing students' essential professional skills in line with employer expectations and increasing students' employability.

The number of students trained/retrained exceeds the project target by 21 (72).

Organising university	RTU	DJUG	NKUA
Number of participants - students - professors	 22 7	 33 3	 38 -
Participating countries	Ukraine & Moldova		
Period	12-16 January 2026	9-13 February 2026	2-6 March 2026

Annex 1. Training School Agenda

Riga Technical University (RTU)

DIGITRANS Student School

Digital Transformation of Engineering Education for Sustainable University–Enterprise Engagement

ERASMUS+ CBHE Project DIGITRANS
Riga Technical University (RTU), Zundas Str. 8 and Azenes iela 12/1, Riga, Latvia
12–16 January 2026

DAY 1 – MONDAY, 12 JANUARY 2026 (Joint morning with Workshop & MC)

109 room, Zundas Str. 8.

09:00–09:30 Registration and Welcome Coffee (joint with Workshop & MC Meeting)

09:30–10:00 Opening Session – RTU Management and Project Coordinator

10:00–11:15 Introduction to the DIGITRANS Student School (structure, outcomes, project-based work)

Azenes 12/1, Room 525 and lab 219

11:15–11:30 Coffee Break

11:30–13:00 RTU: Prof. Nadežda Kuņicina **and the Laboratory 219 manager.** Classroom sessions: digital transformation in engineering education; group formation; project topics.

13:00–14:15 Lunch Break

14:30–15:15 Visiting od Dizaina factory SkyLAB https://www.youtube.com/watch?v=2zKy5WNSvAE
Dr. Elina MIkelsone

15:15 – 16:30 Robot test flight Dr. Armands Senfelds, Pavels Maksimkins & Andrejs Stupans
Laboratory house https://www.lsm.lv/raksts/dzive--stils/tehnologijas-un-zinatne/21.03.2023-rtu-robots-simule-lidosanu-ved-leja-pa-siguldas-trasi-un-palidz-petit-cilvekus.a501690/

16:30–17:00 Coffee Break

17:00–18:00 Student laboratory work (continued)

DAY 2 – TUESDAY, 13 JANUARY 2026

Room 525

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09:00–10:30 RTU lecture – Prof Ilja Galkins, Introduction to programmable logic chips

10:30–10:45 Coffee Break (fully aligned with Workshop & MC Meeting)

10:45–12:45 Classroom sessions:

- LNTU, Prof Valerii Dembitskyi: lecture on Digital Soft Skills for Engineers;
- CPNU, Prof Volodymyr Kazymyr: lecture (topic to be confirmed)

Room 525 and lab 219

13:00–14:00 Lunch Break

14:00–15:30 KTU Lecture – Prof. Rasa Bruzgiene: From Strategy to Simulation: Fortifying Cybersecurity in Industry X ***Room 522***

15:30–15:45 Coffee Break

15:45–17:00 Student laboratory work (continued)

DAY 3 – WEDNESDAY, 14 JANUARY 2026

Room 525

09:00–10:30 KTU session –asoc. prof. Rasa Bruzgiene, prof. : Table-top game with integrated AI agent "NOrisk" (cybersecurity simulation exercise) ***Room 522***

10:30–10:45 Coffee Break

10:45–12:45 KTU Assist. prof. dr. Dangis Rimkus and Assist. prof. dr. Donatas Sandonavičius. Cyber security for everyone. Lecture, theory. ***Room 522***

12:45–13:00 Guided discussion and Q&A

13:00–14:00 Lunch Break

14:00–15:30 RTU Dr Ansis Avotiņš: Introduction to energy efficient LED lighting systems. Lecture.

15:30–15:45 Coffee Break

Room 525

15:45–17:15 RTU: Assoc.prof. Nadezda Zenina Intelligent Transportation Systems role in supporting the development of smart city

17:15- 18:00 Student laboratory work 219

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DAY 4 – THURSDAY, 15 JANUARY 2026

Room 525 and lab 219

09:00–11:00 Assist. prof. dr. Donatas Sandonavičius, Topic 3. "Social IT Security: Detecting and Preventing Scams and Phishing Attacks" 90min. theory. ***Room 522***

11:00–11:15 Coffee Break

11:15–13:00 KhNAHU, Andrii Hnatov, Lecture: History of Electric Vehicles and Hybrids. Electric Vehicles Classification

13:00–14:00 Lunch Break

14:00–15:30 Student laboratory work: finalisation of prototypes; preparation for Student Pitch

15:30–15:45 Coffee Break (students)

15:45–17:00 Pitch coaching and final preparations

DAY 5 – FRIDAY, 16 JANUARY 2026

Room 525 and lab 219

09:00–11:00 Final classroom sessions: RTU, prof Ingars Steiks - Kuka robot (lecture + laboratory)

11:00–11:15 Coffee Break

11:15–13:00 Final classroom sessions: RTU, prof Ingars Steiks - Kuka robot (lecture + laboratory)

13:00–14:00 Lunch Break

14:00–16:00 STUDENTS PITCH SESSION: presentation and defense of innovative prototypes

16:00–17:00 Closing of the DIGITRANS Student School; awarding of Certificates of Attendance

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“Dunarea de Jos” University of Galati (DJUG)

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DIGITRANS

UNIVERSITAS GALATIENSIS

Digital transformation of HEIs education process in Ukraine and Moldova for sustainable engagement with enterprises: DIGITRANS

Training School for students in Galati

February 9 – 13, 2026

“Dunarea de Jos” University of Galati

Monday, February 9, 2026 Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01		
Activity	**Time**	**Lecturer**
Registration, administrative procedures	9:00 – 9:30	DJUG
Welcome by DJUG	9:30 – 9:45	Prof. Ion Ion, DJUG Prof. Costel Ungureanu, Dean of Naval Architecture Faculty, DJUG Prof. Michael Fratita, Vice - Dean of Engineering Faculty, DJUG Students’ organisation of DJUG
Introduction to the DIGITRANS Student School (Overview schedule + main goals of Training School)	9:45– 10:00	Ion Ion, DJUG Anatolijs Zabašta, project manager, RTU (by ZOOM)
Introducing of school participants	10:00 – 10:30	All participants
Photo of the group	10:30 – 10:45	All participants
COFFEE BREAK	*10:45 –11:00*	
Presentation of “Dunarea de Jos” University of Galati	11:00 – 12:00	Ion Ion, DJUG
Visit of laboratories (ship model test basin; welding lab, material science lab; mechatronic lab, electrical engineering lab etc.)	12:00 – 13:00	Prof. Costel Ungureanu, DJUG Prof. Michael Fratita, DJUG
LUNCH	*13:00 – 14:00*	
Classroom session: (lecture with examples) CAD in the Automotive Industry	14:00 – 15:45	Prof. Antonina Kolohoida, CPNU
COFFEE BREAK	*15:45 –16:00*	
Classroom session: (lecture) Hydrogen in automotive sector	16:00 – 17:30	Prof. Ion Ion, DJUG
Tuesday, February 10, 2026 Building Workshop School (ITP), 3 Calea Prutului Street, Room ITP 04		
Classroom session: (lecture and practice) Electric and hybrid car testing	9:00 – 13:00	Prof. Michael Frătiţa, DJUG
LUNCH	*13:00 –14:00*	DJUG
Classroom session: (lecture) Skills in Technical Diagnostics of Vehicle	14:00 –15:30	Prof. Valerii Dembitskyi, LNTU

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COFFEE BREAK	***15:30 – 15:45***	
Classroom session: (lecture) Economic and Environmental Impact of Electric Vehicles	**15:45 – 17:15**	Prof. Andrii Hnatov, KhNAHU
Cultural event: Galati city tour	**17:15 – 18:30**	DJUG
Wednesday, February 11, 2026 Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01		
Visit to the automotive component manufacturer Yazaki Company, Braila and Glorious Lighting Company	**9:00 – 13:30**	DJUG
LUNCH	***13:30 – 14:30***	DJUG
Visit to the APAN Automobile, Braila & Galati (https://www.apanautomobile.ro/?gad_source=1	**14:30 –17:00**	DJUG
Cultural event: Visit of Natural Science Museum Complex Galati (https://cmsngl.ro/)	**17:00 – 18:30**	DJUG
Thursday, February 12, 2026 Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01		
Classroom session: (lecture and practice): maintenance, inspection, diagnosis, repair, and reconditioning of automotive. TRANSURB SA Galati https://transurbgalati.ro/	**9:00 – 13:00**	Gabriel Mocanu, SOLARIS SA
LUNCH	***13:00 – 14:00***	DJUG
Classroom session: (lecture) Use of alternative fuels in transportation	**14:00 – 15:30**	Prof. Robert Chivu, DJUG
COFFEE BREAK	**15:30 – 15:45**	
Classroom session: (lecture) Advanced technologies of energy conservation in internal combustion engines	**15:45 – 17:00**	Prof. Michael Frătiţa, DJUG
Friday, February 13, 2026 Faculty of Naval Architecture, 111 Domneasca Street, Building D, Room D 01		
Classroom session: (lecture) Computer-aided design (CAD) in automotive development	**9:00 – 10:30**	Prof. Michael Frătiţa, DJUG
COFFEE BREAK	**10:30 – 10:45**	
Classroom session: (lecture) CFD use in automotive engineering	**10:45 – 12:15**	Prof. Florin Popescu, DJUG
LUNCH	**12:15 – 13:15**	
Classroom session: (lecture and practice) Recent advances in vehicle dynamics	**13:15 – 14:45**	Prof. Robert Chivu, DJUG
COFFEE BREAK	**14:45 – 15:00**	
Classroom session: (lecture) Advanced Materials in Automotive Engineering	**15:00 – 16:00**	Prof. Ion Ion, DJUG
Closing of the DIGITRANS Student School; awarding of Certificates of Attendance	**16:00 – 17:00**	Prof. Ion Ion, DJUG

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National and Kapodistrian University of Athens (NKUA)

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HELLENIC REPUBLIC
National and Kapodistrian University of Athens
EST. 1837

transformation of HEIs education process in Ukraine and Moldova for sustainable engagement with enterprises DIGITRANS:

Students Training School

National and Kapodistrian University of Athens,
Evripos Campus, Profiti Ilia 1, Psachna

March 2-6, 2026

Monday, March 2, 2026		
	Time	**Contributor**
Registration	***10:00***	
Welcome by NKUA	10:10	Christos Manasis
Official Opening of the Training School	10:15	Project coordinator, RTU
Microgrid Design Tools (part I)	10:30	Christos Manasis
Network Security (part I)	12:30	Lambros Sarakis

Monday, March 2, 2026
Meeting information
10:00 AM - 3:00 PM
https://uoa.webex.com/uoa/j.php?MTID=mc78045344d31c48c2e98a0fccf423ab5
Meeting link: https://uoa.webex.com/uoa/j.php?MTID=mc78045344d31c48c2e98a0fccf423ab5
Meeting number: 2731 989 9699
Meeting password: MZi4fgnYB73
Host key: 220301
Join by video system: 27319899699@uoa.webex.com

Tuesday, March 3, 2026		
Registration	***10:00***	
Microgrid Design Tools (Part II)	10:15	Christos Manasis
Network Security (Part II)	12:30	Lambros Sarakis

Tuesday, March 3, 2026
Meeting information
10:00 AM - 3:00 PM
https://uoa.webex.com/uoa/j.php?MTID=m723d6c1ac9f101802a4526bc2c4ad812
Meeting link: https://uoa.webex.com/uoa/j.php?MTID=m723d6c1ac9f101802a4526bc2c4ad812
Meeting number: 2787 306 8621
Meeting password: 3pvSKtQP29b
Host key: 945530
Join by video system: 27873068621@uoa.webex.com

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Wednesday, March 4, 2026		
Registration	***10:00***	
Microgrid Design Tools (Part III)	10:15	Christos Manasis
Inveter Design and Simulation (Part I)	12:30	Yiannis Konstadaras

Wednesday, March 4, 2026
Meeting information
10:00 AM - 3:00 PM
https://uoa.webex.com/uoa/j.php?MTID=ma22cd995984365b692253d8cbb2ea9f0
Meeting link: https://uoa.webex.com/uoa/j.php?MTID=ma22cd995984365b692253d8cbb2ea9f0
Meeting number: 2785 320 4534
Meeting password: wbXT88UHVN7
Host key: 651554
Join by video system: 27853204534@uoa.webex.com

Thursday, March 5, 2026		
Registration	***10:00***	
Microgrid Design Tools (Part IV)	10:15	Christos Manasis
Inveter Design and Simulation (Part II)	12:30	Yiannis Konstadaras

Thursday, March 5, 2026
Meeting Information
10:00 AM - 3:00 PM
https://uoa.webex.com/uoa/j.php?MTID=m4637f564a430b0a58310ce9d07010d00
Meeting link: https://uoa.webex.com/uoa/j.php?MTID=m4637f564a430b0a58310ce9d07010d00
Meeting number: 2794 535 7456
Meeting password: Nm6sqWgU4S8
Host key: 229752
Join by video system: 27945357456@uoa.webex.com

Friday, March 6, 2026		
Registration	***10:00***	
Inveter Design and Simulation (Part III)	10:15	Yiannis Konstadaras
Inveter Design and Simulation (Part IV)	12:30	Yiannis Konstadaras
Training School Closing and Evaluation	14:00	

Friday, March 6, 2026
Meeting Information
10:00 AM - 3:00 PM
https://uoa.webex.com/uoa/j.php?MTID=maeec600e87fd6e6491b4f30e2d8e5f14
Meeting link: https://uoa.webex.com/uoa/j.php?MTID=maeec600e87fd6e6491b4f30e2d8e5f14
Meeting number: 2791 068 5006
Meeting password: 32Wg3KWMDcC
Host key: 193945
Join by video system: 27910685006@uoa.webex.com

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Annex 2. Participant Statistics

	RTU	DJUG	NKUA
Registered participants	22 students 7 professors	Students: 20 onsite +13 online 3 professors	38 students (35 male, 3 female)
Active participants (daily attendance)	22 students 7 professors	Students: 20 onsite +13 online 3 professors	25–27 students
Participating countries	Ukraine, Moldova		
Training delivery mode	On site	On site + online	Online (Webex platform)

TOTAL number of trained students: 93

Project target: 72

Annex 3. Partner Universities Represented

Country	Host university	Participating university
Latvia	RTU	-
Greece	NKUA	-
Romania	DJUG	-
Ukraine		CPNU, KhNAHU, LNTU
Moldova		USARB, USC, UTM