

# EPiC SUMMER SCHOOL 2025

Location: CAMPUS Research Institute, Conference Room 2 (<https://campus.pub.ro/>)

Dates: 18-20 June 2025

## Day 1 – June 18<sup>th</sup> (Wednesday)

8:00-8:45

**Registration**

9:00-9:20

**Welcome & Introduction to Erasmus Mundus Programs**

Prof.em.dr.ing. Dan Alexandru STOICHESCU

Conf.dr.ing. Mădălin-Corneliu FRUNZETE

POLITEHNICA Bucharest

9:20-10:00

**Thermal Modeling for Safe and Reliable Lithium-ion Battery Storage Systems**

Dr. Hamzeh BEIRANVAND

CAU

10:00-10:15

**Coffee break**

10:15-11:00

**Dyanmic and Energetic Performances of Electric Vehicles**

Șl.dr.ing. Alexandru-Adrian ANCUȚA

POLITEHNICA Bucharest

11:00-11:45

**A Romanian Perspective for EPiC Master: the Automotive Green Technologies Lab**

Conf.dr.ing. Lucian PERIȘOARĂ

POLITEHNICA Bucharest

12:00-13:00

**Lunch break**

13:00-13:20

**EPiCo+ Management and Students**

Marie-Pierre PECHOUTRE

ECN

13:20-13:45

**The Benefits of Erasmus+ Mobilities**

Cristian DIMA

POLITEHNICA Bucharest

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## Day 2 – June 19<sup>th</sup> (Thursday)

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| 9:00-9:45   | <b><i>Improvement of Electric Vehicle Performances</i></b><br>Prof. Malek GHANES<br>ECN  |
| 9:45-10:30  | <b><i>Experimental Validation of Phase-Shift Modulation Control for Dual Active Bridge (DAB) Converters</i></b><br>Prof. Arezki FEKIK<br>ECN                               |
| 10:30-10:45 | <b><i>Coffee break</i></b>   |
| 10:45-11:30 | <b><i>The Problem of Output Regulation: A Review of Classical and Recent Results</i></b><br>Prof. Bernardino CASTILLO<br>CINVESTAV   |
| 11:30-12:15 | <b><i>Nonlinear Control Applied to an Autonomous Vehicle</i></b><br>Prof. Stefano DI GENNARO<br>UAQ  |
| 12:15-13:15 | <b><i>Lunch break</i></b>  |
| 13:15-13:35 | <b><i>Steering by Wire Motor Controller Demo</i></b><br>Ing. Andrei GRIGORE<br>POLITEHNICA Bucharest - EPiC Alumni   |
| 13:35-14:00 | <b><i>Evolution of Urban Traffic Control: From Early Innovations to Modern Systems</i></b><br>As.drd.ing. Alin-Alexandru ȘERBAN<br>POLITEHNICA Bucharest - Ph.D. Candidate |

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## Day 3 – June 20<sup>th</sup> (Friday)

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9:00-10:30 *NXP Presentation and Demo*

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10:30-11:00 *Infopro Digital Automotive Presentation*  
Ing. Alexandru-Jan COADĂ  
Quality Control Manager

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11:00-11:15 *Coffee break*

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11:15-12:00 *Feedback session with associated professors of the local EPiC Master*

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12:00-12:45 *Lunch break*

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13:00-14:00 *Closing ceremony*

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# EPiC SUMMER SCHOOL 2025

## Speakers' Presentation

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**Prof. Malek GHANES (ECN, France):** Prof. GHANES is the general coordinator of E-PiCo+. He is a permanent member of the Consortium and the committees. He leads the chair Renault-ECN on EVs and his research interests include differentiation/observation and control of nonlinear systems, with applications mainly to electric systems.

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**Marie-Pierre PECHOUTRE (ECN, France):** As member of ECN International office, Mrs. PECHOUTRE will be in charge of E-PiCo+ program as an administrative and financial point of view within E-PiCo+ Management Office team. She will be the main point of contact of the students through the dedicated email address.

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**Prof. Arezki FEKIK (ECN, France):** Dr. FEKIK is the local coordinator in ECN. He is a researcher in the chair Renault-ECN and will be mainly in charge of the academic aspects in ECN: student's and teachers' planning's, local juries, local projects/internships management.

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**Dr. Hamzeh BEIRANVAND (CAU, Germany):** Dr. BEIRANVAND is specialized in power electronics, batteries and passive components.

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**Prof. Stefano DI GENNARO (UAQ, Italy):** Prof. DI GENNARO is the local coordinator in UAQ. He will be a member of the Consortium as well as the Selection Committee and leader of the Advisory Committee.

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**Prof. Bernardino CASTILLO (CINVESTAV, Mexico):** Prof. CASTILLO is the local coordinator in CINVESTAV. He will be a member of the Consortium as well as leader of the Advertising and Dissemination Committee Outside Europe.

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**Conf.dr.ing. Mădălin-Corneliu FRUNZETE (POLITEHNICA Bucharest, Romania):** Prof. FRUNZETE is the local coordinator in POLITEHNICA Bucharest, with his areas of interest in research being the study of dynamic systems, random number generators for cryptographic applications and blockchain technologies.

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**Conf.dr.ing. Lucian PERIȘOARĂ (POLITEHNICA Bucharest, Romania):** Prof. PERIȘOARĂ is a professor in POLITEHNICA Bucharest. His fields of interests are Information Theory and Coding, Decision and Estimation in Information Processing, Information Transmission in Wireless Networks, Automatic Testing of Equipments and Processes, MIMO Systems, Embedded Systems, Automotive Electronics.

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**Șl.dr.ing. Alexandru-Adrian ANCUȚA (POLITEHNICA Bucharest, Romania):** Prof. ANCUȚA is a professor in POLITEHNICA Bucharest. Some of his papers are entitled: „Modeling and simulation of an electric propulsion system equipped with Fuel Cell”, „Simulation of the Parameters of a Lithium-ion Battery that Equips an Electric Vehicle.

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**Cristian DIMA (POLITEHNICA Bucharest, Romania):** As member of POLITEHNICA Bucharest International office, Mr. DIMA is in charge of Erasmus+ program as an administrative and financial point of view.

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# EPiC SUMMER SCHOOL 2025

## E-PiCo+ Partners



*National University Of Science And Technology  
Politehnica Bucharest (POLITEHNICA Bucharest)  
– Romania*



*Ecole Centrale De Nantes (ECN) – France*



*Christian-Albrechts-Universität Zu Kiel (CAU) –  
Germany*



*Università degli Studi dell'Aquila (UAQ) – Italy*



*Centro de Investigación y de Estudios Avanzados  
del Instituto Politécnico Nacional (CINVESTAV) –  
Mexico*