

CybPhys Training School at the University of Cyprus

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KIOS Research and Innovation Center of Excellence
University of Cyprus

<http://www.kios.ucy.ac.cy>



Funded by:



Imperial College
London

Jan. 30-Feb.10, 2023



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Introduction

- **Place:** KIOS Research and Innovation Center of Excellence at the University of Cyprus
- **Period:** January 30th and February 10th, 2023
- **Mode:** hybrid



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Main Goals of the CybPhys Student Mobility & Training School at UCY

The Student Mobility & Training School aims to

- Enhance learning mobility;
- Improve the quality and internationalization of education and growth;
- Enhance the relevance of educational curricula;
- Equip students with the required skills and competences to compete in the labor market;
- Transfer knowledge from European to Ukrainian Higher Education institutions (HEIs);



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Main Goals of the CybPhys Student Mobility & Training School at UCY

- Offer quality lectures and hands-on training on various curricula topics and study program related to Cyber-Physical Systems (CPSs);
- Demonstrate to students the hardware and software of networks;
- Immerse students in cutting-edge research and innovation in ICT, including electric power systems;
- Introduce students to new knowledge and tools implemented to solve real-life problems;



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Main Goals of the CybPhys Student Mobility & Training School at UCY



- Offer students a chance to be exposed to new knowledge and novel research undertaken in various areas including
 - Electric and hybrid vehicles;
 - Power quality assessment in active distribution grids using data science models;
 - Integration of renewable energy resources;
 - Simulation and analysis of water testbeds;
- Participate in collaborative group projects on various areas related to Cyber-Physical Systems (CPSs);



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Presenters



Dr. Stella Hadjistassou



Dr Irina Ciornei



Dr Andrii Hnatov



Dr. Stelios G. Vrachimis



Dr. Lenos Hadjidemetriou

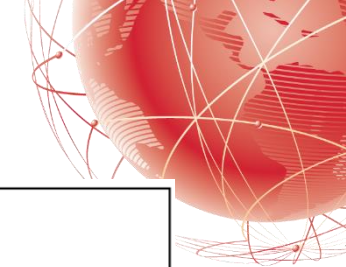


Dr. Markos Asprou



Ms Hanna Hnatova

Agenda



Day 1 - Monday, January 30, 2023 (LRC 014)

9:30 AM – 10:30 AM	Coffee Break and Registration
10:30 AM – 11:00 AM	Introduction to the Training Event. Administrative Rules at the KIOS CoE and UCY Premise <i>(Irina Ciornei and Stella Hadjistassou)</i>
11:00 AM – 11:45 AM	Introduction to the Main Goals of the Student. Training Event at UCY. Prerequisites and Software to Install: Matlab/ Simulink/ Simscape/ Electrical/ Specialized Power Systems <i>(Irina Ciornei/Stella Hadjistassou & Hanna Hnatova)</i>
12:30 PM – 2:00 PM	Lunch break
2:00 PM – 4:00 PM	Advanced Technical Communication <i>(Dr. Stella Hadjistassou)</i>

Day 2 - Tuesday, January 31, 2023 (LRC 014)

9:00 AM – 12:30 AM	1. History of Electric and Hybrid Vehicles 2. Classification of Electric Vehicles <i>(Prof. Andrii Hnatov (KhNAHU))</i>
12:30 PM – 2:00 PM	Lunch break
2:00 PM – 4:00 PM	Advanced Technical Communication <i>(Dr. Stella Hadjistassou)</i>

Day 3 - Wednesday, February 1, 2023 (LRC 019)

9:00 AM – 12:30 AM	3. Economic and Environmental Impact of EV 4. The Electric Motor/Generator <i>(Prof. Andrii Hnatov (KhNAHU))</i>
12:30 PM – 2:00 PM	Lunch break
2:00 PM – 3:00 PM	Learning Resource Center, UCY Library “Stelios Ioannou” Tour & Campus Tour (Dr. Stella Hadjistassou) <i>(UCY Student Ambassador)</i>
3:00 PM – 4:00 PM	5. The High-Voltage Battery <i>(Prof. Andrii Hnatov (KhNAHU))</i>

Day 4 - Thursday, February 2, 2023 (LRC 019)

9:00 AM – 12:30 AM	Power quality assessment in active distribution grids using data science models. Project: Matrix Profile for abnormality detection in power quality assessment <i>(Dr. Irina Ciornei)</i>
12:30 PM – 2:00 PM	Lunch break
2:00 PM – 4:00 PM	Advanced Technical Communication <i>(Dr. Stella Hadjistassou)</i>
4:00 PM – 7:00 PM	Dinner

Day 4 - Thursday, February 2, 2023 (LRC 019)

9:00 AM – 12:30 AM	Power quality assessment in active distribution grids using data science models. Project: Matrix Profile for abnormality detection in power quality assessment <i>(Dr. Irina Ciornei)</i>
12:30 PM – 2:00 PM	Lunch break

The topics discussed during the 2-week training school

- Advanced technical communication for engineers

(Dr. Stella Hadjistassou);



The topics discussed during the 2-week training school

- Introduction to Electric and Hybrid electric Vehicles

(Dr Andrii Hnatov) – online;



The topics discussed during the 2-week training school

- Critical infrastructure from a holistic perspective
 - Power quality assessment in active distribution grids (Dr. Irina Ciornei)



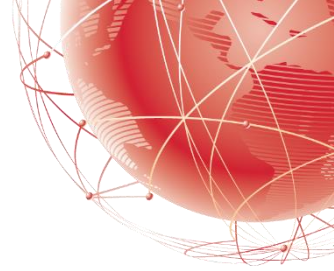
The topics discussed during the 2-week training school

- Critical infrastructure from a holistic perspective
 - Integration of renewable energy resources (Dr. Lenos Hadjidemetriou)



The topics discussed during the 2-week training school

- Critical infrastructure from a holistic perspective
 - Educational and research tools for modern power and energy systems (Dr. Markos Asprou)



The topics discussed during the 2-week training school

- Critical infrastructure from a holistic perspective
 - Smart water networks (Dr. Stelios Vrachimis)



The topics discussed during the 2-week training school

- Critical infrastructure from a holistic perspective
 - Live Demo at KIOS CoE's Water Systems

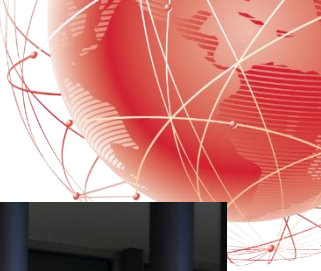


Activities during the 2-week training school

- Walking Tour in the Center of Old Nicosia
- UCY Library “Stelios Ioannou” Tour & Campus Tour



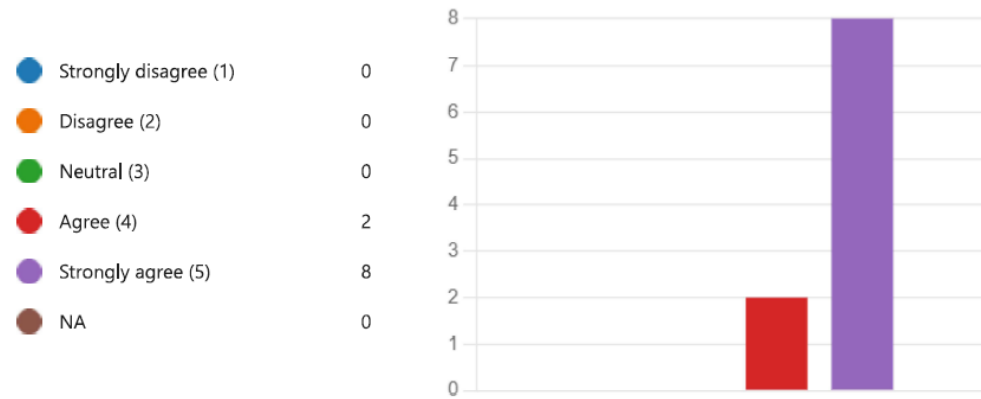
Results of the 2-week training school



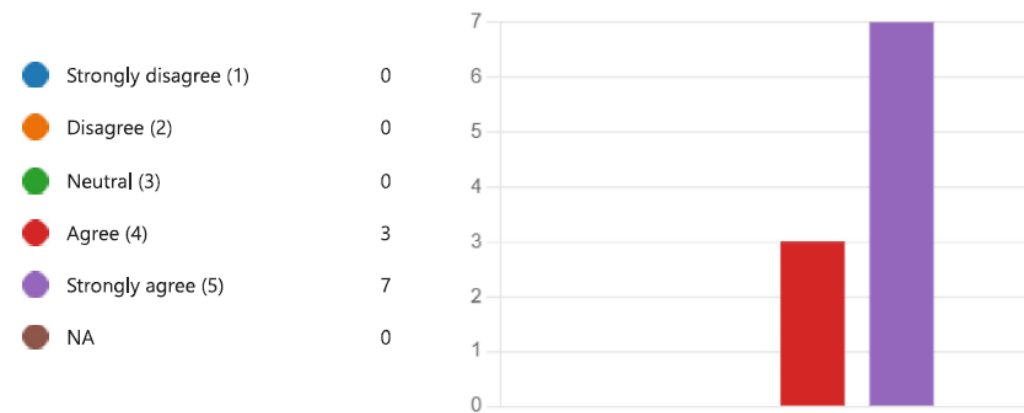
Participants' Feedback on the UCY Training School



1. The "**Student Mobility and Training Event**" on Cyber-Physical Systems offered by the University of Cyprus was **well organized**.



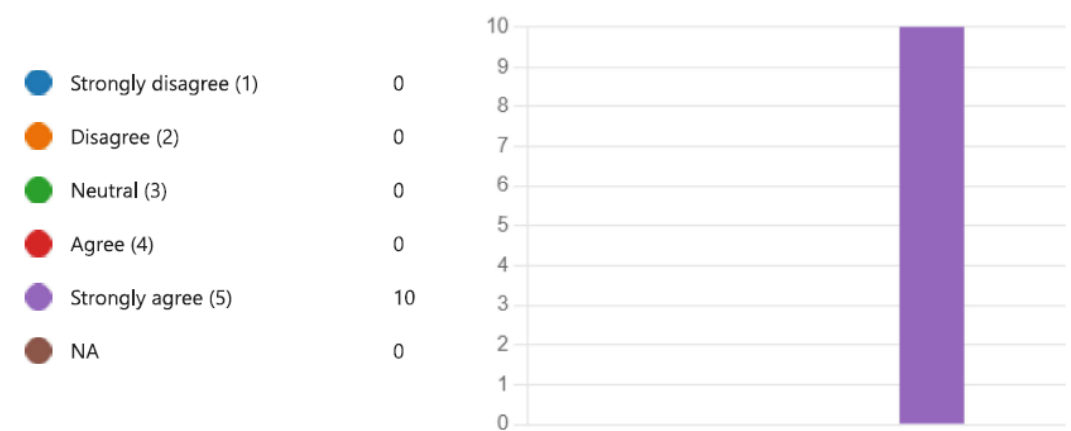
3. The training event included a wide repertoire of interesting and stimulating pedagogical and research topics that helped me expand my knowledge in the field.



2. The training event on Cyber-Physical Systems offered by the University of Cyprus was **effectively delivered**.



4. The session on the "**History of Electric and Hybrid Vehicles**" helped me understand better the history of automotive electric and hybrid technology.





**Thank you for your
attention!**