

CEEPUS Partner Conference - Sept 25, 2024, Budapest, Hungary

Good Practices in the CEEPUS Network BG-1103

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Technical University of Sofia, Bulgaria
Coordinator of BG-1103

CEEPUS network coordinator

BG-1103-08-2324

Modelling, Simulation and Computer-aided Design in Engineering and Management



<http://ceepusmodcad.ubt-uni.net/>

2023/2024: 43 partners from 16 countries

5 silent industrial partners

Diverse activities – Summer schools, conferences (ex. IWSSIP'2022)

New Joint Doctoral Program “Modelling, Simulation and Computer-aided Design in Engineering and Management”

Flexible course

Galia Marinova, TU-Sofia, CEEPUS Partner Conference - Sept 25, 2024, Budapest, Hungary

CEEPUS COORDINATORS TOUR

Steps in the tour:

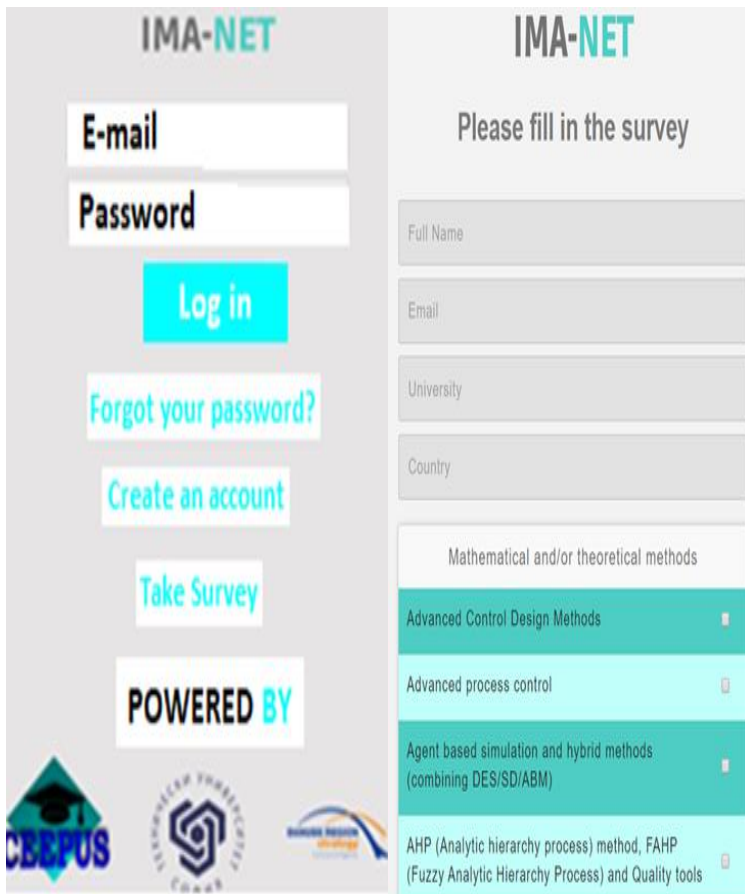
- University “Alexander Moisiu”, Durres, Albania
- UBT, Pristina, Kosovo
- Pecs, Hungary
- US and UES, Sarajevo and Jahorina, BiH
- University North, Varazdin, Croatia
- Palacky, Olomouc, Czech Republic
- UEiK, Katowice, Poland
- University of Nis, Faculty of Electronics, Nis, Serbia
- University of Maribor, FERI, Slovenia
- Graz University of Technology, Graz, Austria
- Technical University of Sofia, Sofia, Bulgaria, CEEPUS Coord.
- Technical University of Moldova, Chisinau, Moldova
- University of Montenegro, Podgorisa, Montenegro (virtual)
- Slovakian University of Technology in Bratislava, Bratislava, Slovakia
- Transilvania University of Technology, Brasov, Romania
- Polytechnic University of Bucharest, Romania
- Mother Teresa University, Skopje, North Macedonia (Tetovo, Shtip – 6 faculties).
- University of Kragujevac, Kragujevac, Serbia
- University of Pannonia, Veszprem, Hungary

I understood the potential of the region for development and prosperity through cooperation.

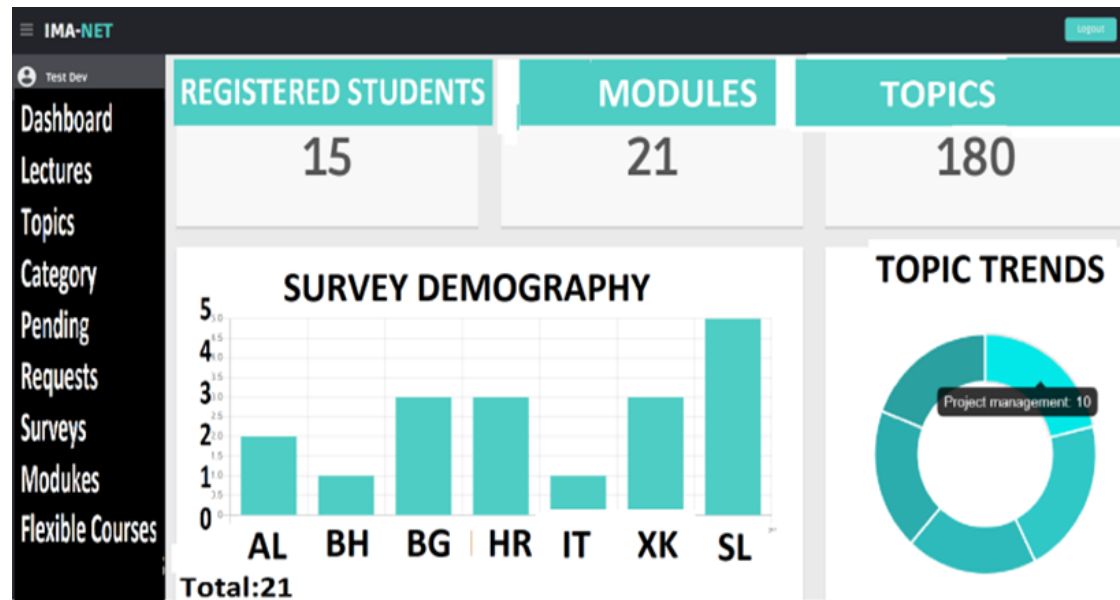
we created an instrument

IMA-NET: Innovative e-Management Platform for Academic Network within CEEPUS link: <http://ima-net.ubt-uni.net/survey>

Login and Web page of the Survey in IMA-NET Dashboard



The image shows the IMA-NET login and survey form. On the left, there is a login section with fields for E-mail and Password, a Log in button, and links for 'Forgot your password?' and 'Create an account'. Below this is a 'Take Survey' button and a 'POWERED BY' section with logos for CEEPUS, Technical University of Sofia, and another partner. On the right, there is a survey form titled 'Please fill in the survey' with fields for Full Name, Email, University, and Country. Below these fields is a section for 'Mathematical and/or theoretical methods' with a list of topics: Advanced Control Design Methods, Advanced process control, Agent based simulation and hybrid methods (combining DES/SD/ABM), and AHP (Analytic hierarchy process) method, FAHP (Fuzzy Analytic Hierarchy Process) and Quality tools.

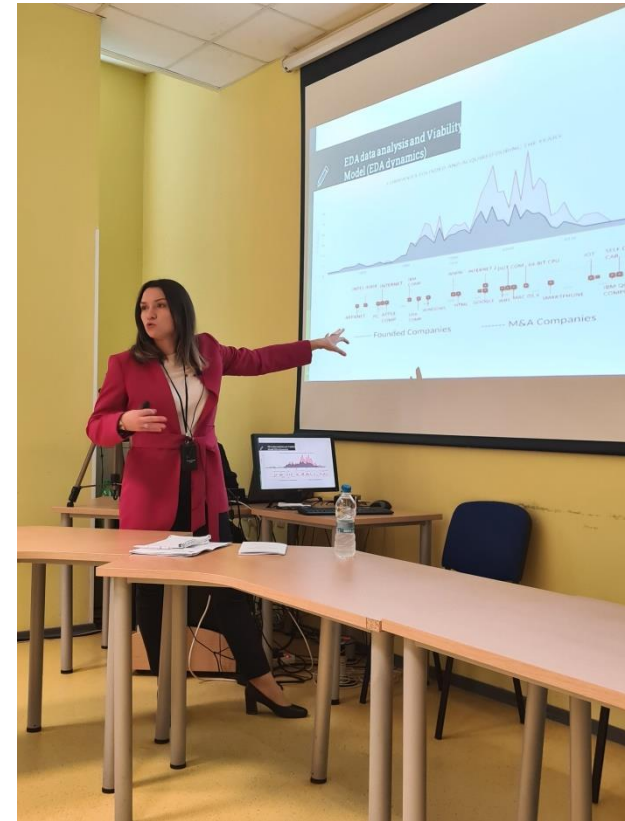


Optimize teaching proposals, mobility usage, Perform and support multiple surveys. Developed by my doctoral student Krisel Tola

Joint Doctoral Program

2 primary institutions TU-Sofia and IICT-BAS
12 doctoral students, one of them graduated in 2022
in TU-Sofia, one in IICT-BAS in 2024
4 students are preparing their defense

The network developed a joint doctoral program
and doctoral students are strongly involved in the
projects, publishing joint papers, attending Special
sessions to conferences organized in the CEEPUS
region.



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CEEPUS SUMMER SCHOOL

On Advanced Communications and global impact

Graz University of Technology in Graz, Austria, 6-15 July 2023

In parallel with conference CONTEL'2023



- 5 guest professors
- 24 students from 11 countries
- 2 Austrian companies
- KOHS, Vienna, Austria

CEEPUS Summer School Modelling and simulation of Advanced Communications and Global Impact, Maribor, Slovenia 02-13 July 2024

<https://urbanify2024.feri.um.si/>



11 guest professors
26 students from 13 countries
Slovenian companies

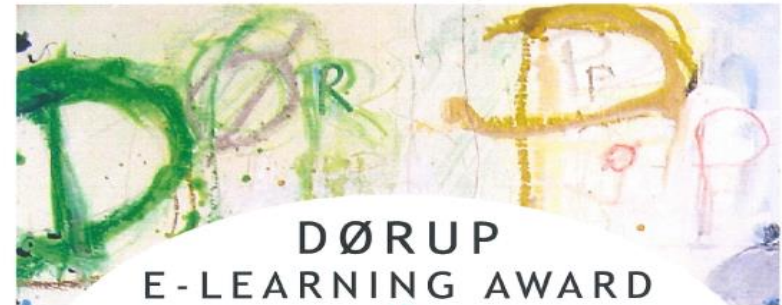
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International Recognition

CEEPUS Network CIII-BG-1103-03-1819, “Modelling, Simulation and Computer-aided design in Engineering and Management”

**Recognition on
EUNIS congress in Norway
in June 2019.**

**Looking forward!
New projects, cooperation with
business are ahead...**



**FINALIST IN
THE EUNIS DØRUP E-LEARNING AWARD 2019**

**PROJECT
Impact of University Networking on Students' Mobility and Motivation**

**by
Galia Marinova**

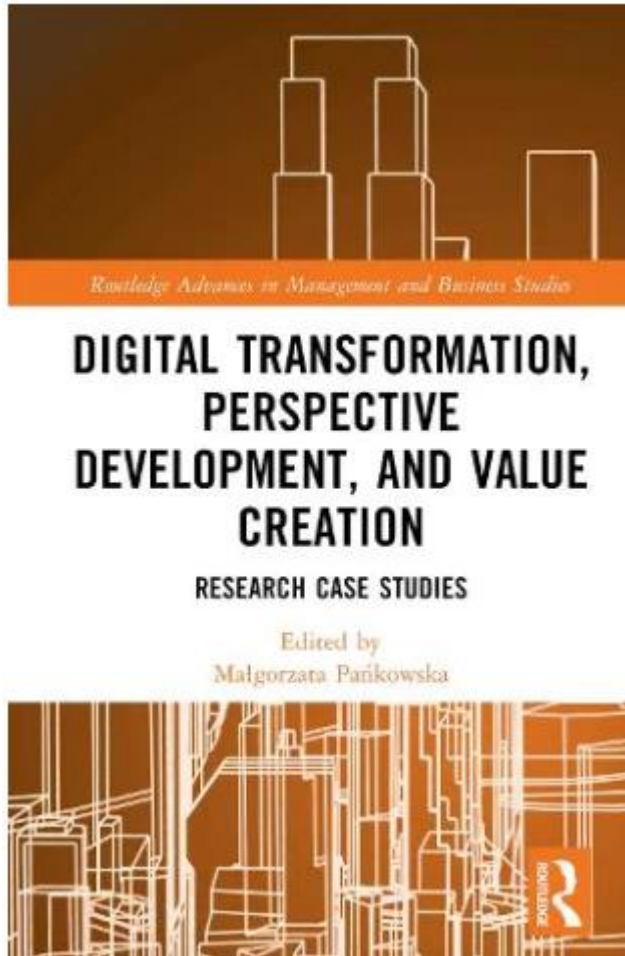


A handwritten signature in blue ink, likely belonging to Mads Ronald Dahl.

Mads Ronald Dahl
Chair of EUNIS Dørup E-learning Award



Paper dedicated to the good practices in BG-1103



Scientific Paper Dedicated To The CEEPUS Network BG1103:
G Marinova, K Tola , Innovations In A CEEPUS Academic Network And Their Impact On Management Effectiveness And Research Achievements, Digital Transformation, Perspective Development, And Value Creation, Pp.3-22, Taylor&Francis, 2024

Projects generated in BG 1103

Erasmus+ **bilateral** agreements – more than 15

Erasmus+ Capacity building in Higher Education (**CBHE**) IoT-ECO project focusing on technology implementation for green transformation in the Western Balkans,

Several **NATO Science for Peace Advanced Workshop** projects focused on:

- overcoming crises (Moldova),
- maritime monitoring and strengthening resilience in maritime critical infrastructures (Marocco)
- cybersecurity,
- promoting diversity and inclusion, etc.(Germany)

Erasmus+ K220 **CYBERCITY** A practical approach to teach and learn cybersecurity in smart cities, starting 2023, **KA220-HED - Cooperation partnerships in higher education**. Partners from Italy and Spain.

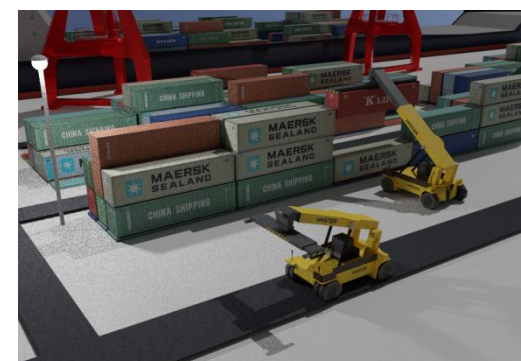
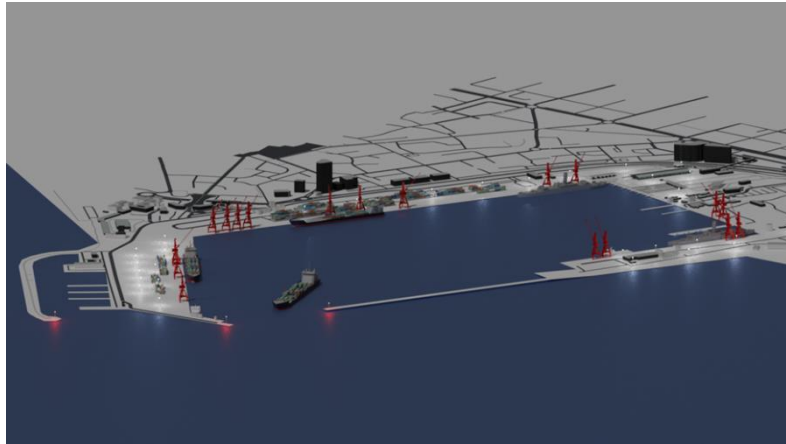
Erasmus+ Capacity Building Project in Higher Education

IoT Green Transformation for Academic Society and Business Oriented Ecosystem in Western Balkans IoT-ECO



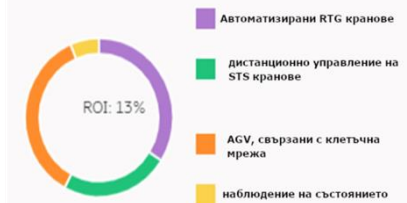
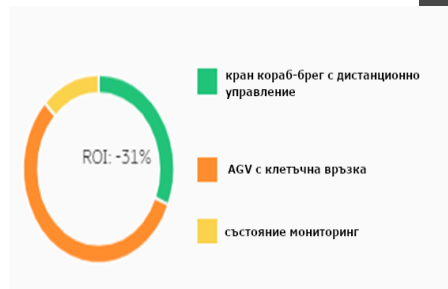
- IoT Hubs in partner HEIs
- Teaching materials, new courses and modules on IoT and Green transformation
- Green transformation ecosystem model of the Port of Durres as a virtual prototype made available on the IoT-ECO hub.
- Green transformation ecosystem model of the university campuses UBT in Kosovo and UoM in Montenegro

3D Digital model of the port of Durres



Ericsson calculator for a Smart port

Evaluation of the ROI for different scenarios for IoT implementation in a port

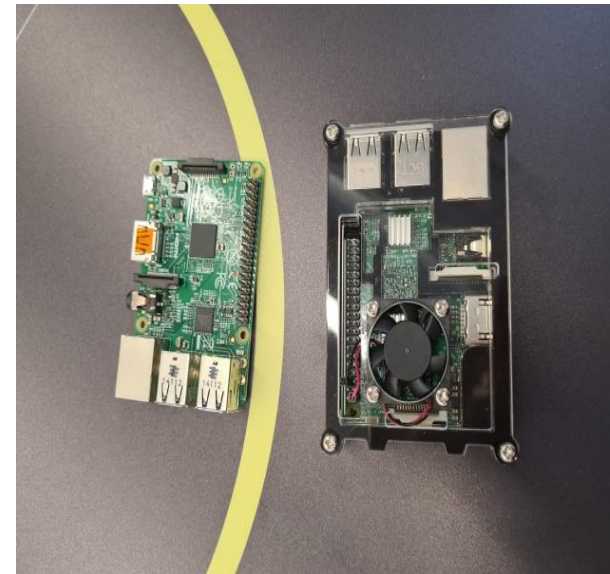


Angel Arsov,
Manjola Zeneli

Cybercity

A practical approach to teach and learn cybersecurity in Smart cities

University of Sannio, Benevento, Italy
Technical University of Sofia, Bulgaria,
University of Valencia, Spain
Perlatecnica, Naples, Italy



Prototypes to model the Smart city, emulate cyberattacks and plan cybersecurity



**Based on ST
Microelectronic devices,
Roseberry Pie, etc.**

**Software is currently
developed to control the
autonomous cars, the
traffic light system, the
cyberattacks, and the
cyberprotection...**

thank you!

Any questions?

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