

# **IOT GREEN TRANSFORMATION FOR ACADEMIC SOCIETY AND BUSINESS ORIENTED ECOSYSTEM IN WESTERN BALKANS**

# **NEWSLETTER**

**ISSUE no. 3 - December 2024**



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## Dear reader,

Welcome to the third edition of our newsletter dedicated to IoT Green Transformation for Academic Society and Business-Oriented Ecosystem in the Western Balkans.

In today's fast-evolving world, the integration of sustainable practices and high end technology is not just an aspiration but a necessity. Our project takes a bold step forward, harnessing the transformative power of Internet of Things (IoT) to drive green innovation across academia, business, and society in the Western Balkans. Together, we aim to build a more sustainable, resilient, and interconnected future.

This newsletter serves as your gateway to the latest updates, milestones, and stories from our journey. Here, you will find insights into the work being undertaken by our talented teams, spotlights on impactful initiatives, and the collaborative spirit that unites universities, businesses, and policymakers in our region.

The Western Balkans is at a pivotal moment, with immense potential to lead the way in green and digital transformation. By bridging the gap between academia and industry, strengthening cross-border collaborations, and embracing innovative solutions, we are laying the foundation for a thriving ecosystem that benefits all stakeholders.

We invite you to join us on this exciting journey—whether you are a researcher, a business leader, a policymaker, or simply someone passionate about the future of sustainable innovation. *Together, we can create lasting change and inspire others to follow our lead.*

Let's stay connected and make an impact, one IoT-driven solution at a time.

Warm regards,  
IoT ECO Team

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# PROJECT ACTIVITIES:

## >>> IOT-ECO HUB-VIRTUAL TRAINING 25 JUNE 2024

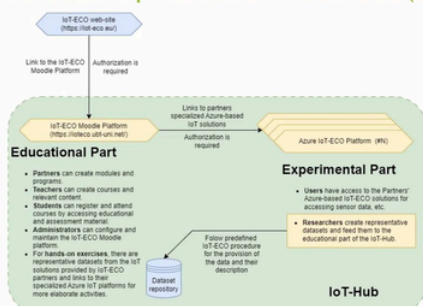
The recent virtual training session organized by the IoT-ECO Hub has been hailed as a remarkable success, bringing together participants from diverse backgrounds to explore cutting-edge advancements in IoT technology and develop sustainable solutions for a greener future.

The event was marked by a vibrant exchange of ideas, featuring engaging discussions, insightful presentations, and thought-provoking questions that kept the dialogue dynamic and impactful. Attendees demonstrated a keen enthusiasm and curiosity, creating an atmosphere of collaboration and innovation that resonated throughout the session.

Organizers expressed their gratitude to all participants, highlighting their contributions as pivotal to the event's success. "Your energy, curiosity, and active engagement truly made this experience special and inspiring for everyone involved," they remarked.

This session is just the beginning of an exciting journey for the IoT-ECO Hub, which has announced plans for future events and initiatives aimed to learn and innovate. The IoT Eco Hub was conceptualised by the Greek Eu partners and also implemented in the IoT-Eco website where can be accessed by all the pre defined teams from each university

### General concept of the IoT-ECO hub (2/2)



IoT-ECO hub on-line training, 25 June 2024

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IoT Green Transformation for Academic Society and Business Oriented  
Ecosystem in Western Balkans  
Project number: 101083018 - IoT-ECO - ERASMUS-EDU-2022-CBHE-STRAND-2



On-line training for sharing content via IoT-ECO Hub  
(part of D4.2)

UPAT Team

25 June 2024



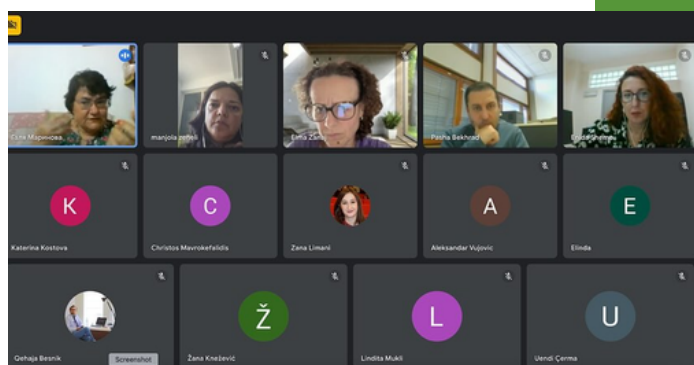
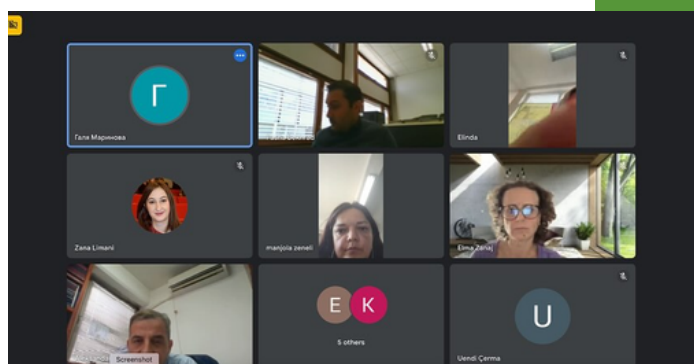
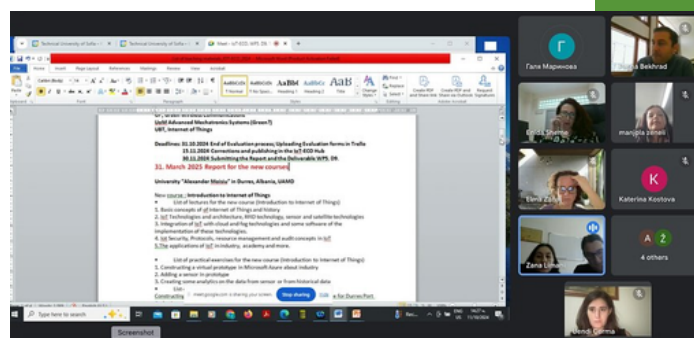
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## >>> ONLINE MEETING RELATED TO WP5

11 OCTOBER 2024



The IoT-ECO Hub project is making strides with impressive progress on Work Package 5 (WP5). Partners from Albania, Kosovo, and Montenegro have successfully uploaded their teaching materials, marking a critical milestone in the initiative.

The next phase involves a thorough review process, with partners from Austria, Bulgaria, and Greece set to evaluate the materials. This collaborative effort ensures the highest quality and relevance of the content, reflecting the shared commitment to excellence across all participating countries.

Once the review is complete, the finalized materials will form a key part of one of the project's deliverable reports and will be published on the IoT-ECO Hub, making them accessible to a broader audience.

Special recognition goes to all contributors for their dedication and hard work, particularly during the summer months. Their efforts underscore the collaborative spirit and determination driving the project forward.

Stay tuned as the IoT-ECO Hub continues to advance toward its goals in enhancing innovation and sustainable solutions across the region.





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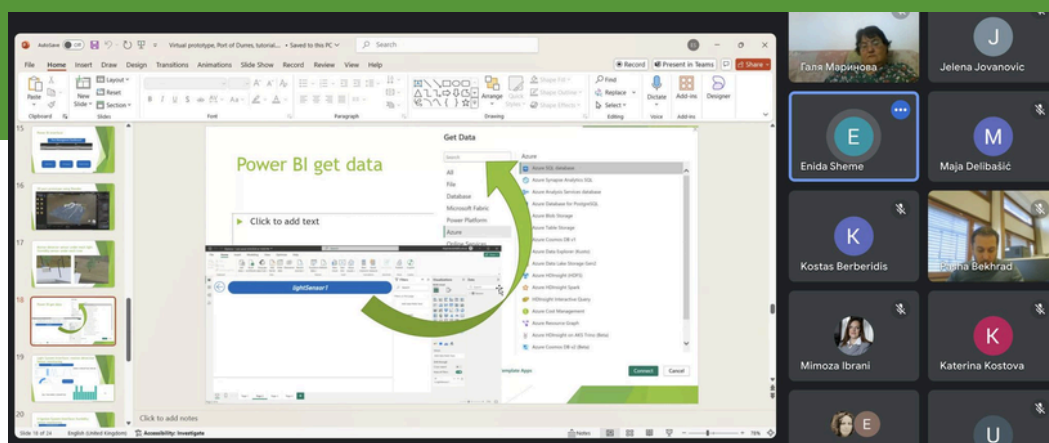
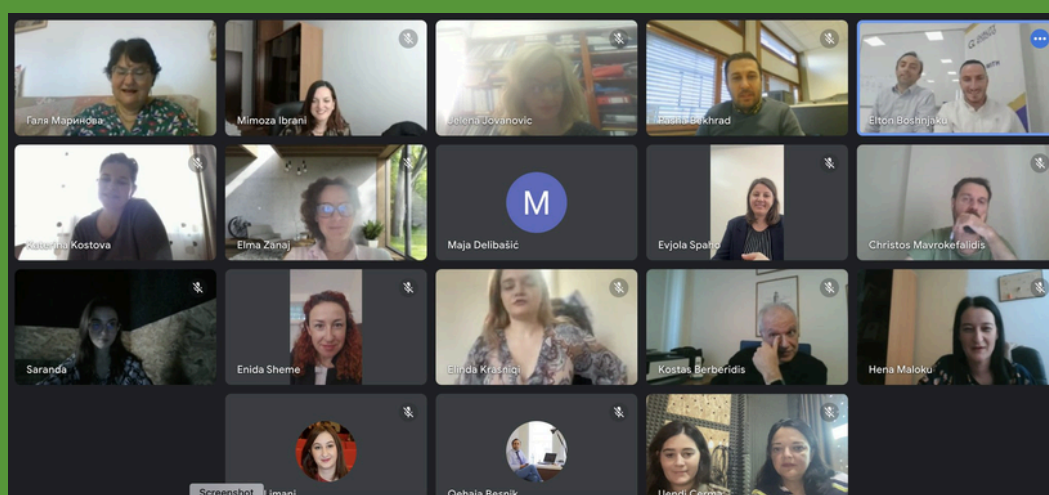


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## VIRTUAL PROTOTYPES MEETING 30 OCTOBER 2024

On October 30, 2024, the IoT-ECO Hub project marked a major milestone with a collaborative meeting dedicated to advancing educational resources through innovative virtual prototypes. The WP5 Teaching Materials and Virtual Prototypes session brought together a vibrant team of contributors to showcase dynamic models aimed at enhancing interactive learning experiences.

The event featured a variety of presentations, each highlighting groundbreaking approaches to virtual education. The UBT team unveiled a detailed virtual model of the UBT Campus, offering an immersive look into their learning environment. The University of Montenegro introduced an IoT model designed to revolutionize their educational framework, while Aleksander Moisiu University presented an engaging tutorial on their virtual prototype of the Port of Durrës, demonstrating the potential of digital tools in bridging theory and practice.





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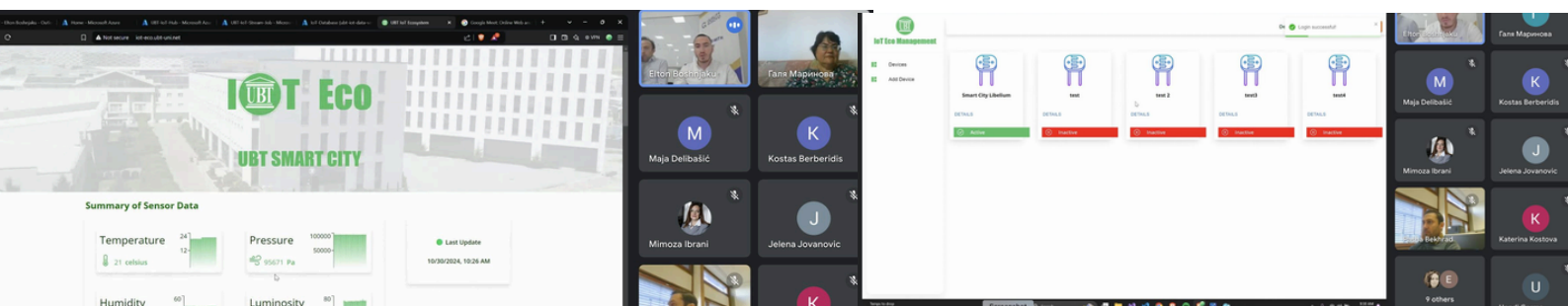
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## ➤➤➤ VIRTUAL PROTOTYPES MEETING 30 OCTOBER 2024

Additionally, the Polytechnic University of Tirana provided valuable insights into diploma thesis projects from two of their Master's students, underscoring the integration of academic research with technological innovation. Meanwhile, the University of Patras team shared updates on their efforts to publish new teaching materials and courses on Moodle, further enriching the resources available through the IoT-ECO Hub.

The showcased virtual prototypes exemplified diversity and adaptability, reflecting a commitment to designing flexible tools that cater to the evolving needs of modern education. These developments reaffirm the project's mission to drive innovation and foster excellence in learning environments.

As the IoT-ECO Hub continues to push boundaries, these prototypes stand as a testament to the transformative power of collaboration and technology in shaping the future of education.



## ➤➤➤ During this virtual meeting the coordinator analysed the future tasks that need to be scheduled:

Aleksander Moisiu University has to think on how to organize a webinar or podcast or event an animated video for people with dissabilities related to IoT ECO concepts.

University for Business and Technology has to decide for the dates of the summer school that will be organised in their premises.

All the WB partners have to think in taking some feedback from the students related to the teaching materials of the new courses.



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# »»» Our partners activities related to IoT-ECO:

## PROMOTION OF ERASMUS+ PROJECTS AT THE FACULTY OF MECHANICAL ENGINEERING

On September 25, 2024, a promotional event for Erasmus+ projects were held at the Faculty of Mechanical Engineering. Jelena Šaković Jovanović and Aleksandar Vujović, project coordinators, provided an overview of the IoT ECO projects goals, its significance for academic and professional development, and the opportunities it offers for student involvement. It was a great opportunity for discussions on the potential benefits of international collaboration and mobility within the Erasmus+ program, encouraging students to participate in upcoming project activities and exchanges.

The event was well-received by the students, who showed great interest in the possibilities offered by the project, including participation in workshops, project realization and international project collaborations.





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## >>> Our partners activities related to IoT-ECO:



In July 2025 and October 2025, two Master thesis diplomas were defended. The topic was on building a virtual prototype for Port of Durres using Microsoft Azure Digital Twin and real sensor implementation for lighting and irrigation system of the Port.

Two new PhD projects on IoT and sustainability were approved by the Faculty, UPT Senate and Ministry of Education, by September 2024. Three (3) new PhD students are enrolled in these PhD research projects in November 2024. They will be working for 3-5 coming years on Digital Twin for sustainable systems. The titles of the projects are "The integration of Digital Twin, Industry 4.0 and Machine Learning for building efficient and ecological intelligent systems" and "Management and implementation of innovative techniques for energy efficiency in IoT-based wireless networks". Both projects are inspired by the IoT-Eco project, can be counted as deliverables of this project, and will guarantee the sustainability of IoT-Eco project in UPT after it finishes.



## »»» Our partners activities related to IoT-ECO:



**At the International Conference organized by UBT in Pristina, Kosovo, from October 25th to 27th, 2024, a significant dissemination event was held for the IoT-ECO project. This event served as a platform to showcase the project's objectives, ongoing developments, and its contributions to advancing the Internet of Things (IoT) ecosystem.**

**The dissemination event provided an opportunity to share insights on how the project integrates IoT solutions to address pressing environmental and societal challenges, including energy efficiency, resource optimization, and sustainable development.**

## »»» Our partners activities related to IoT-ECO:



**Promotion of Erasmus+ Projects at the Faculty of Mechanical Engineering. On September 25, 2024, a promotional event for Erasmus+ projects were held at the Faculty of Mechanical Engineering. Jelena Šaković Jovanović and Aleksandar Vujović, project coordinators, provided an overview of the IoT ECO project goals, its significance for academic and professional development, and the opportunities it offers for student involvement. It was a great opportunity for discussions on the potential benefits of international collaboration and mobility within the Erasmus+ program, encouraging students to participate in upcoming project activities and exchanges. The event was well-received by the students, who showed great interest in the possibilities offered by the project, including participation in workshops, project realization and international project collaborations.**

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**PROJECT DURATION:**  
**1.12.2022-30.11.2025**

Overall budget: 780,951.00 Eu



## OUR PARTNERS AND ASSOCIATED PARTNERS



Universiteti  
Politeknik i Tiranës



ΠΑΝΕΠΙΣΤΗΜΙΟ  
ΠΑΤΡΩΝ  
UNIVERSITY OF PATRAS



Fond  
za inovacije  
Crne Gore

Autoriteti Portual Durrës  
DURRËS PORT AUTHORITY



CREA-KO SHPK

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