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SUTEE: Showcasing Urban Trees for Environmental Education with IoT Technology

Project Number: 2023-1-ES01-KA220-SCH-000153498

Newsletter 2: September 2024

About the project

SUTEE (Showcasing Urban Trees for Environmental Education with IoT Technology) is a European project, co-funded by the European Commission under the Erasmus+ KA220-SCH program, with an implementation period of 3 years. The project is coordinated by the Universidad Politecnica de Madrid (Spain) in collaboration with 4 participating organisations: Pädagogische Hochschule Wien (Austria), Doukas School (Greece), Universidad Nacional de Educación a Distancia (Spain) and Johann Wolfgang Universität Frankfurt am Main (Germany).

The SUTEE project focuses on enhancing environmental education for teachers and young people in dense metropolitan areas. Recognizing the significant impact urban environments have on human well-being and climate change, SUTEE aims to foster innovative educational approaches to tackle these pressing societal and ecological challenges.

Objectives

The project aims to address the following issues:

- 🌿 appreciation of the natural landscapes and features in cities
- 🌿 create competences to support urban environmental behaviours
- 🌿 awareness of citizen participation in avoiding degradation of ecosystems and destructive city planning that exacerbates Urban Heat Islands (UHIs) and destroys urban tree canopy (UTC)
- 🌿 aggregate a variety of climate protecting approaches (fountains, vertical gardens, etc.)
- 🌿 build knowledge, skills and attitudes around sustainable living (GreenComp)
- 🌿 generate digital competences to collect and interpret urban environmental data (e.g. CO₂ air quality, soil moisture deficits)



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Small Private Online Course (SPOC)

The SUTEE project is about to start an online course for teachers and teacher educators. This five-part course aims to inspire teachers of all levels of education to generate experiential learning activities and implement them in their syllabus. It will also introduce supportive technologies like Internet of Things and sensor based open data in support for better understanding of the urban climate challenges.

The content of the five modules is:

- 🌿 Module 1: Introduction, urban planning, climate, heat islands, soil moisture deficit, CO2
- 🌿 Module 2: Competence models – green competences framework, digital competences framework
- 🌿 Module 3: Inquiry based learning
- 🌿 Module 4: Technology - Introduction to the IoT devices, sensors, data platform, mobile app
- 🌿 Module 5: From the use of IoT devices to a rich competence-based environmental learning environment



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Be part of **SUTEE**
Showing Urban Trees for Environmental Education

We cordially invite you to attend a free online course for teachers and teacher educators!

- Get fit in urban climate education
- Be part of an international teacher community
- Get to know your own surroundings and those of the other participants
- Create environmental learning activities for your students
- Use inquiry-based learning in your teaching
- Merge green competences and digital competences.
- Pimp your lessons using digital devices (IoT, AI, etc.) and international data sources
- Incorporate urban nature and climate into your lesson plans

Save the dates!
16:00 - 18:20

October 9, 2024
November 6, 2024
December 4, 2024
January 8, 2025
January 29, 2025

For more information visit <https://sutee.eu/>
If you are interested in the course subscribe [here](#)

Questions? Write to wolfgang.greller@phwien.ac.at
Working language: English
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Exploring Plant-Human Interaction Through Dance: SUTEE Project at Oviedo's Campoamor Theater

On August 3-5, 2024, part of the SUTEE team moved to the Campoamor Theater in Oviedo to explore how plants can interact with people through dance. The SUTEE team installed electrophysiology sensors on hydrangeas and basilis to see how they reacted to human stimuli. The event attracted local press and will be used in this project (in educational contexts) to highlight the role of plants in urban areas.





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2nd Transnational Project Meeting

On June 17 and 18, Goethe University Frankfurt hosted the 2nd Transnational Project Meeting for the "SUTEE: Showcasing Urban Trees for Environmental Education with IoT Technology" project. All project partners traveled to Frankfurt to participate in the in-person event, fostering a collaborative atmosphere.

During the two-day meeting, the team reviewed the project's progress, covering both completed activities and those currently underway. Special focus was given to the development of the **Small Private Online Course (SPOC)**, which is set to launch in October and will serve as a key component of the project's educational outreach.



The meeting also covered project management, communication, and quality assurance, prioritizing high standards to achieve impactful results. This productive session helped partners align on goals and reinforce their commitment to advancing environmental education through innovative IoT technology.

SUTEE contribution to EDUCON 2024 conference

At the IEEE EDUCON 2024 in Kos, Greece, SUTEE partners presented "IoT and Generative AI Technologies to Support Urban Environmental Learning." This paper emphasizes urban environmental education's role in promoting well-being and tackling climate change. Using sensors, IoT, and generative AI with inquiry-based pedagogy, the project visualizes urban data, such as tree coverage and heat islands, to enhance digital and environmental skills. A training model equips educators with tools and resources for eco-friendly urban strategies, supported by open online activities for practical application.



Partners

