#### DEEPCEL (The Digital Electronic with Eco-designed Paradigm in Collaborative Enhanced Learning)

KA220-HED - Cooperation partnerships in higher education REFERENCE: 2024-1-FR01-KA220-HED-000255190 25/02/2025 to 25/02/2028



# KA220-HED - Cooperation partnerships in higher education **DEEPCEL (The Digital Electronic with Eco-designed Paradigm in Collaborative Enhanced Learning)**

REFERENCE: 2024-1-FR01-KA220-HED-000255190 Coordinator: University of Tours

# Sustainable and Eco-design in Electronics: A Teacher Training Program

Delivery format: Hybrid – In-person and Online via live sessions
University of Alcalá. Pl. de San Diego, 28801 Alcalá de Henares, Madrid
Rectorado. Sala de Conferencias Internacionales
Dates: 11th–12th September 2025

Duration: 9 hours over 2 days

REGISTRATION: <a href="https://forms.office.com/e/8auzgZeZsy">https://forms.office.com/e/8auzgZeZsy</a> Registration is currently open and will close on July 30, 2025.

#### Overview

This intensive 2-day training course is part of the **DEEPCEL** project. It is aimed at **higher education teachers** in electronics and related fields who are interested in integrating **sustainability and ecodesign** into their teaching practice. The course combines theoretical insights with practical sessions and collaborative strategies.

## Training Format and Methodology

- Blended delivery: In-person sessions and remote presentations
- Theoretical content: Expert talks, Q&A, and discussion
- Practical learning: Hands-on tools, case studies, and collaborative projects
- Resources: Open-source electronic design tools and materials

## **Program Schedule**

Day 1 - Thursday, 11 September 2025

Time

Session

Introduction to Sustainable Projects

Lena Costecalde. University of Tours – Pedagogy & sustainability in education

Eco-design needs
Circular economy challenges

Life Cycle Analysis (LCA) for Electronics (Remote)

Hugo Helbling. University of Lyon – Life Cycle Analysis in electrical systems (Remote)

LCA tools & methodologies



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#### Time Session

- Teaching LCA
- Case examples

#### 11:15-11:45 Coffee Break

#### **Open Hardware Modularity**

Cristian Zambelli. University of Ferrara – Hardware design and modularity

- 11:45-13:00 Open-source benefits
  - Reconfigurable designs
  - Modular circuit demos

#### 13:00-14:30 Lunch break

#### Sustainable E-Design

Lenka Koskova Triskova. Technical University of Liberec – Sustainable software

## 15:00-16:15 design

- Software impact on sustainability
- Best practices to reduce e-waste

#### 16:30-18:30 **DEEPCEL Internal meeting**

18:30 **Social Activity** – Visit to University of Alcalá and Paraninfo.

#### Day 2 - Friday, 12 September 2025

#### Time Session

#### **Recoverability & Reusability of Electronics** (Remote)

Nicolas Perry. University of Bordeaux – Industry 4.0 and electronic reuse (Remote)

- 09:30-10:45 Critical materials
  - End-of-life strategies
  - Industry 4.0 tools

#### 10:45-11:15 Coffee Break

#### **Educational Strategies for Teaching Sustainability**

Gaelle Berton. University of Tours - Engineering training and sustainability

# 11:15–12:30 integration

- Curriculum integration
- Interdisciplinary methods
- Circular design pedagogy

#### **Discussion & Call to Action**

#### 12:30-13:00

• Open questions and future collaboration proposals

#### 13:00-14:30 Course closure

