



*Digital Transition Impact  
Future HEI Accelerate project*

## **UPT PERSPECTIVE**

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Funded by  
the European Union

# Context



## Politehnica University of Timisoara

- Created in 1920
- #1 and largest university in West Romania
- Major connection with industry and community
- 12 Faculties
- 28 Departments
- 46 Research Centres
- 17 000+ students
- Innovation Hub – since 2012  
Entrepreneurial and Innovation Center

- Institute of Digital Transformation – 2023
- Digital and Distance Education Department (1998)
- Multimedia Research Center (1996)
- 6 undergraduate degrees
- 4 Master programmes
- Digital and Multimedia Support and service for all university
- 11 major research areas



# UPT ITAP Goals

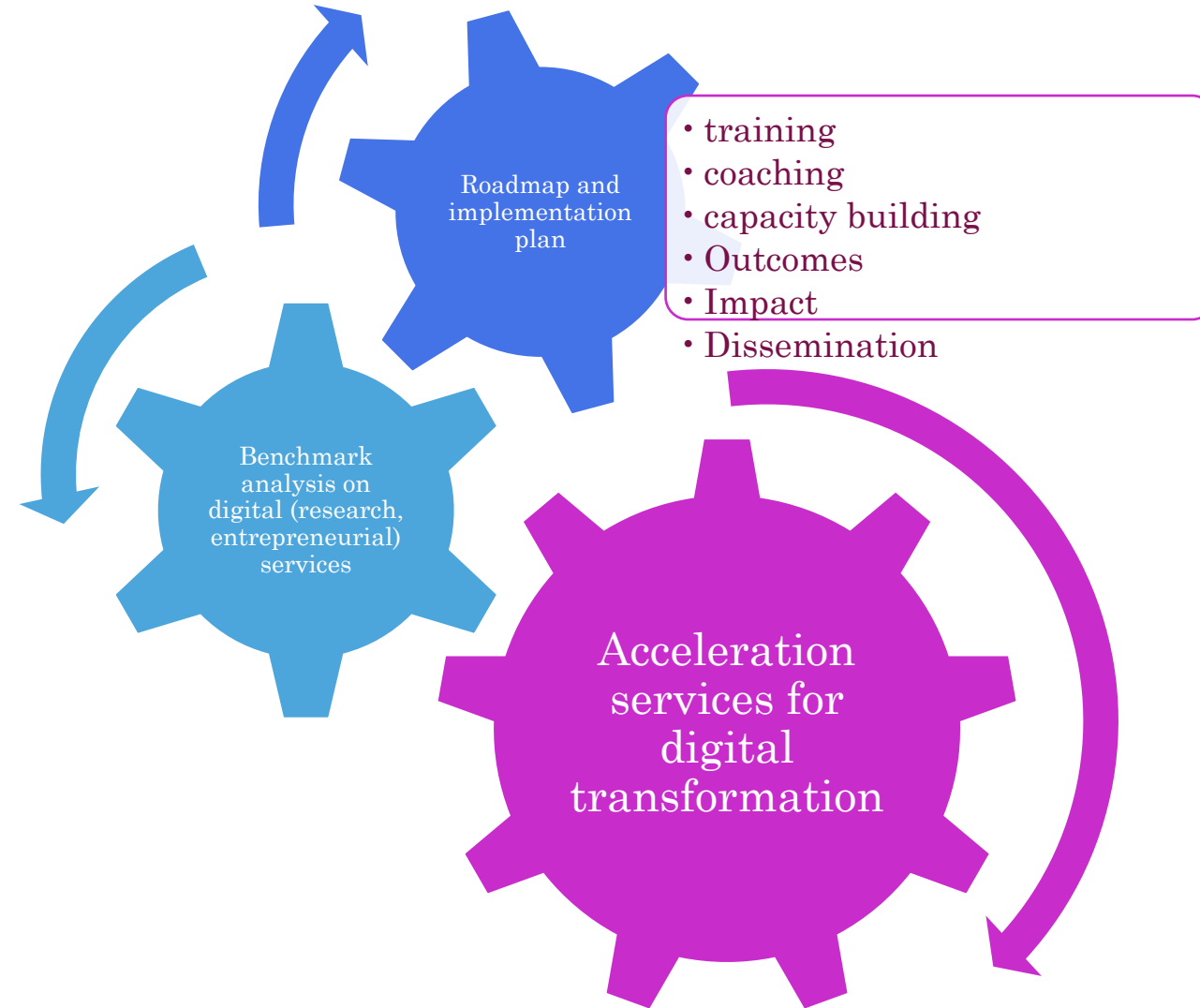
Digital education valorization through microcredentials programmes and challenge-based learning using digital (AI, VR) technologies.

Fostering openness and creativity in a digital world via research valorization, with direct local and regional impact

Expand community impact by implementing SDGs and social innovation projects



# UPT INSTITUTIONAL TRANSFORMATION ACTION PLAN



UPT Digital Transformation in education, research, and Region & stakeholder engagement



# UPT INSTITUTIONAL TRANSFORMATION ACTION PLAN

**Digital Education Valorization: microcredentials programs and challenge-based learning enhanced by artificial intelligence and virtual reality technologies**

**Research Valorization: openness and creativity in digital research with direct local and regional impact**

**EMPOWERING THE FUTURE THROUGH DIGITAL TRANSFORMATION OF UPT**

**Community Impact Expansion: Sustainable Development Goals (SDGs) and social innovation projects**



# UPT outcomes



- Digital transformation is a long process, requiring strong teamwork, initially started in 2012 with a new vision from 2023
- University strategy is clearly aligned with the specific aim of institutional digital transformation
- Multiple stakeholders are involved either as beneficiaries, or as sponsors or partners, including companies, students, alumni, teachers and management personnel
- Multiple key actions are planned for implementation, some of them being already in the process of approval or even ongoing. Some examples are the following:
  - challenge-based learning is already implemented by teachers from the Digital Education Department (DeL) across UPT
  - development and deployment of a VR/AR laboratory in the university with social & economic impact
  - New integration of AI in the digital transformation strategy

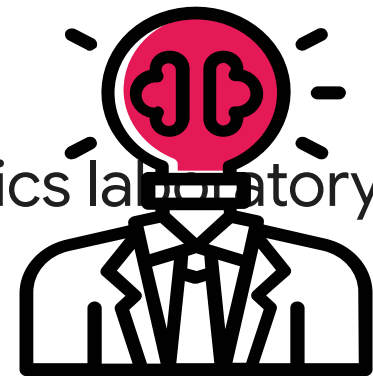


## SIGNIFICANT SUCCESS OR ACHIEVEMENT

Part of the Goal 1 “Digital education valorization through microcredentials programmes and challenge-based learning using digital (AI, VR) technologies.”

Focus on challenge-based learning as a pedagogical approach to teaching activities, to foster digital education

Education for the future: building a VR laboratory, a robotics laboratory and implementing AI in education activities





**Digital Tools**  
(creating, using)  
Core  
Content  
Skills

**Digital Education  
Eco-system**  
Collaboration  
Co-creators



**Academic  
Culture changes**  
**Learning  
transformation**  
Community collaboration  
& Knowledge exchange

**Together  
Online**

**Early Adopters**

**Enablers**

**Digital leaders**

**UPT Digital Education**



# Education

ITAP Goal

Digital education valorization

Target Groups

Students/Researchers /  
external

Acceleration service

Acceleration services

## Microcredentials for short courses and online courses

3 new online courses integrated in UniCampus with increasing no. of participants Y-o-Y:

- Blockchain (in cooperation with EBSI DC4EU project)
- New tools for Digital Education,
- AI for research

107 participants in 2025 – students, researchers – UPT and external stakeholders



# Education

Co-Creating Open educational resources  
OER by students and academics

UPT integrated OER materials into 30  
courses  
with 11 courses already successfully  
integrated during the 2024-2025 academic  
year

50 faculty staff were trained in creating and  
using OERs, with 18 of them being trained  
in 2024, 35 in 2025

ITAP Goal

Digital education valorization

Target Groups

Students/educators

Acceleration service

Acceleration services

The screenshot displays the Campus Virtual UPT interface. At the top, there are navigation menus for 'My Menu' and 'Navigation'. The main content area shows a course titled 'Curs 6 - Multiplexor - circuit combinational' with a video player. The video player shows a man pointing at a whiteboard with a circuit diagram. Below the video, there are two buttons: 'RAM, MUX' and 'ROM, ADDER'. The interface also includes a search bar, a language selector (English (en)), and a user profile (Andreea Diana). The bottom part of the screenshot shows a video player for 'Introducere în instrumentele digitale deschise' with a 'Done: View' button. The video player shows a woman speaking and a title 'Open Digital Competences'.

Introducere în instrumentele digitale deschise

1. Sumar

Open Digital Competences  
Utilizarea uneltelor digitale în educație  
Introducere în instrumentele digitale deschise  
Dr.ing. Diana Andone

În cadrul cursului Utilizarea uneltelor digitale în educație primul modul este dedicat Introducerii în instrumentele digitale deschise.

În acest modul veți afla:

- Ce sunt licențele deschise?
- Ce sunt instrumentele digitale deschise?

Sesiuni de training Campus Virtual UPT și competențe digitale

Departamentul de ID/IF și Educație digitală DeL - a organizat în perioada 30 septembrie - 1 octombrie sesiuni de training online, în Zoom, pentru Campusul Virtual și de competențe digitale, o sesiune de 2h, repetată de 2 ori (aceeași informație) destinată studenților din anul I și la care participarea a fost obligatorie. Ele sunt disponibile și pe Campusul Virtual, prin accesarea următoarelor link-uri:

Training CVUPT 2024

Pentru întrebări sau neclarități în accesarea CVUPT sau altele vă rugăm să ne scrieți pe <https://suport.elearning.upt.ro/index.php>  
Tutoriale CVUPT <https://elearning.upt.ro/ro/campus-virtual/>

# Research valorization

VR Lab development for Nokia and Bell Labs Museum  
VR App “Bell Labs Expo”

Co-creation with Master students  
VR application development over 6 months process  
presented during the “Nokia Bell Labs – 100 Years of Innovation” event in May 2025  
tested by 80 participants and external stakeholders

[Link event](#)

ITAP Goal

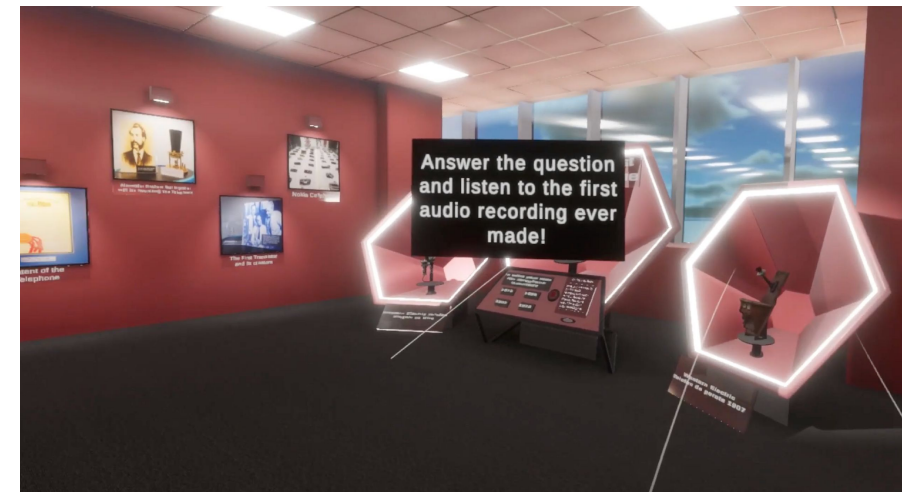
Fostering Openness & Creativity

Target Groups

Students/Researchers /  
external

Acceleration service

R&D valorization



# Digital Education & Social Innovation

new workshops, trainings and conferences organised in 2024, gathering, in total, more than 6000 participants

December 2024 “International Workshop for Digital Competences”, hybrid, with 300 international participants, with E<sup>3</sup>UDRES<sup>2</sup> Alliance

ITAP Goal

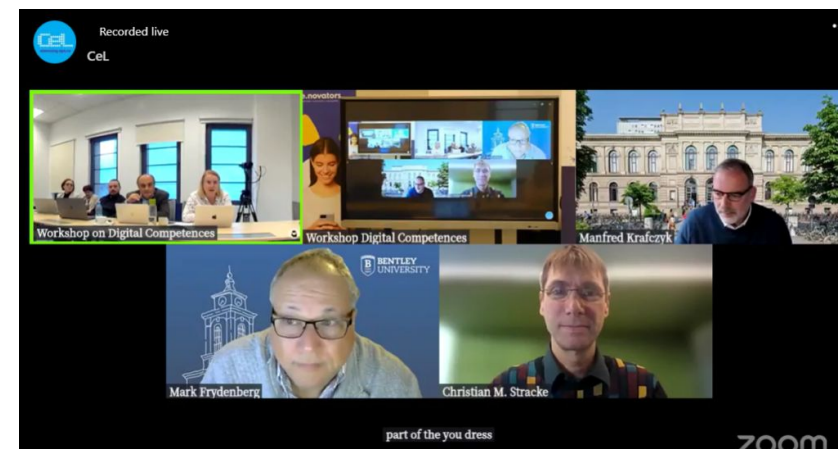
Target Groups

Acceleration service

Digital Education & Expanding Community Impact

Students/external

Innovation services



# Digital Education & Social Innovation

ITAP Goal

Digital Education & Expanding  
Community Impact

Target Groups

Students/external

Acceleration service

Innovation services

students are continuously engaged in hackathons and innovation challenges

- 2024, 450 students participated in UniHack 2024, to which other major events will be added by the end of the academic year.
- IDMSC 2024 International Digital Media Student Contest attracted 36 students from 4 countries, across multiple categories
- IDMSC 2025 – attracted 45 students from E<sup>3</sup>UDRES<sup>2</sup> alliance.
- Grand Prize of 2025 competition was won by Alexandru-Mihai Zvîncă - TreeHelper – Wood Transport Authorization and Monitoring System, a wood transport



# Digital Social Innovation Projects

**Spotlight Heritage Timisoara** project represents a flagship initiative in digital cultural heritage and tourism

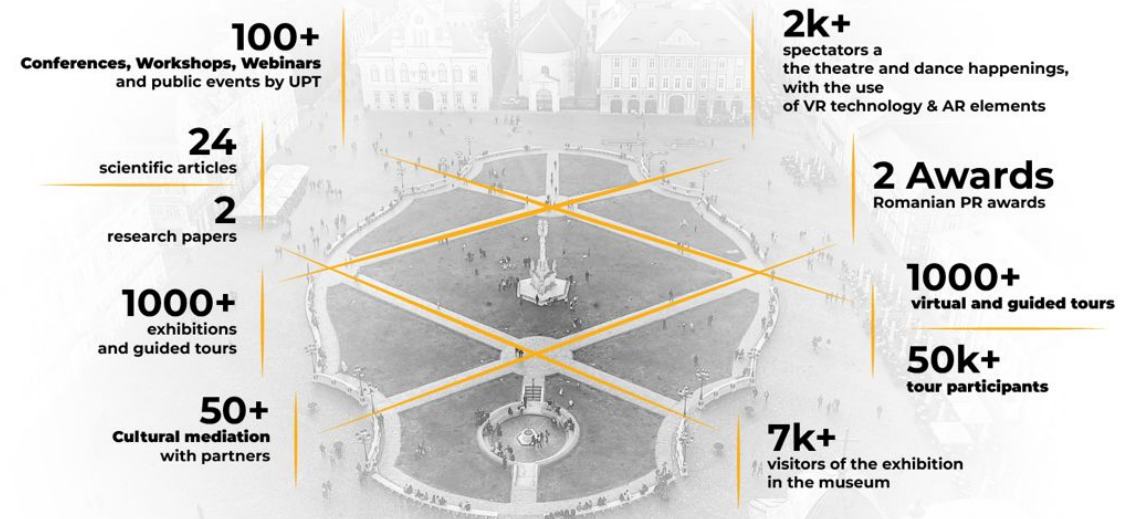
engagement with the community and university-community partnerships reflected in the success story of Spotlight Heritage Timisoara project

Co-creation with over 100 students

Web/mobile/VR/MR/ NFT applications and deployment May 2025

Presented in 12 countries with 1.5 mil participants

ITAP Goal	Expanding Community Impact
Target Groups	external
Acceleration service	Sustainable development



## Spotlight Heritage Timisoara Community



# STARTED INITIATIVE

Funding approval for VR laboratory, acquisition in process to be finalised

Microcredentials for short courses and online courses

3 new courses (Blockchain, New tools for Digital Education) – 107 participants

Invited lecturers in 6 courses (from start-ups and companies)

International Workshop for Digital Competences with E3UDRES2 -300 participants

<https://elearning.upt.ro/ro/evenimente/peste-300-de-persoane-online-si-fizic-la-workshop-competente-digitale-in-inteligenta-artificiala-si-comunitate-8211-digiskills-2024/>



# STARTED INITIATIVE

Increased presence of UPT in the community – participation at several events organized by companies and Chamber of Commerce, with emerging technologies demonstrations (ILoveTech, BanatIT)

European Researchers' Night, UPT Campus Night



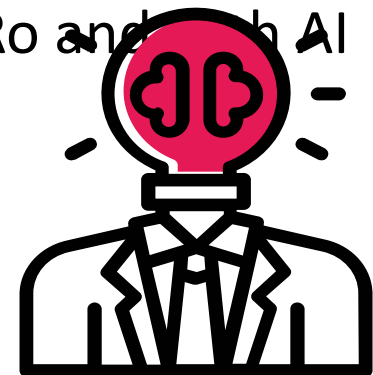
## UPT plans and Sustainability

Part of the Goal 2 “Fostering openness and creativity in a digital world via research valorization, with direct local and regional impact”

- implementing AI in research and education activities by equipping the university staff with knowledge and developing dedicated tools

Developing training in AI – open access in Zenodo

Developing a Digital platform dedicated to digital education (in Ro and with AI translation in EN) – [digiedu.upt.ro](https://digiedu.upt.ro) – to be launched in Dec 25



# Gender equality in digital transformation



In 2021, UPT was the first Romanian university to sign the Diversity Charta, in EU Platform of Diversity Charters

As of 2022, UPT enacted a Gender Equality Plan, UPT has a Diversity, Equity and Inclusion Office

This plan underpins the digital transformation aim, as gender equality is overseen in all university initiatives

Digital competences for all

In the past years, the university conducts campaigns on inclusive behavior, has dedicated policies and guides. The guiding principles are respect, openness, excellence and sustainability.



# Contact

**Dr. Diana Andone**

EDEN Fellow 2011, Senior Fellow 2021  
EDEN Vice-president (2017-2021)

**Director**

**IEEE Education Society VicePresident**

IEEE Romania Education Chair,

IEEE Education Board of Governors

IEEE Computer Society, TCLT Open Chair

IEEE Education and Women in Engineering

**EUA Digital Transformation Steering committee**

**Digital Education**

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[cv.upt.ro](https://cv.upt.ro)

[Unicampus.ro](https://unicampus.ro)





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