

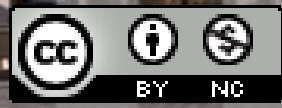


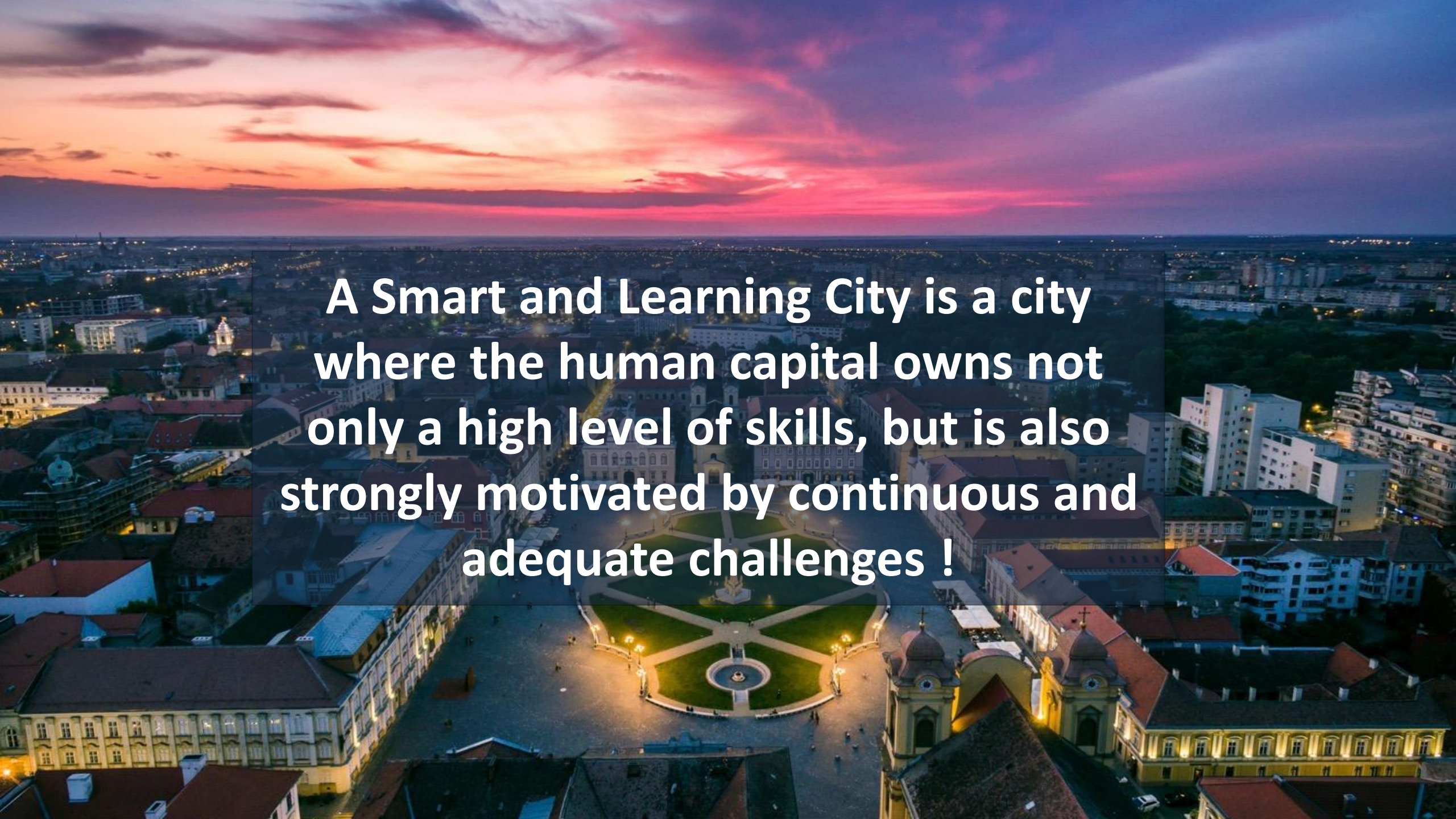
Piața Victoriei nr. 2
RO 300006 - Timișoara
Tel: +40 256 403000
Fax: +40 256 403021
rector@upt.ro
www.upt.ro

**Politehnica
University of
Timisoara**

Prezentare Master TEHNOLOGII MULTIMEDIA

Conf.dr.ing. Muguraș MOCOȘAN



An aerial photograph of a city at sunset. The sky is filled with vibrant orange, pink, and purple clouds. The city below is illuminated by streetlights and building lights. In the center, there is a large, circular square with a fountain in the middle. The square is surrounded by buildings with red-tiled roofs. The overall scene is a mix of urban architecture and natural beauty.

A Smart and Learning City is a city where the human capital owns not only a high level of skills, but is also strongly motivated by continuous and adequate challenges !

Multimedia Center established in 1996

- 38 International projects EU, and 27 national (1996 – 2023)
- Cooperation > 50 universities
- Cooperation > 50 companies
- Partner 4 international associations



Multimedia Center

32 PhD Thesis



Multimedia Center



- **Since 1996/1997, TST3 - Multimedia**, undergraduate
- **Since 2009, Multimedia technologies**, 2 years, research, interdisciplinary Master of Science
- **Since 2011, Communications, Public Relations and Digital Media**, 2 years, Master interdisciplinary, jointly with the Faculty of Communications
- **Since 2014 Technologies and Systems for e- Activities** 2 years, research, Master of Science



Curricula – master Tehnologii Multimedia



| Semestrul I | Semestrul II |
|---|---|
| <p>2 discipline opționale, din setul:</p> <ul style="list-style-type: none">- Modele de date avansate- Semnale și sisteme numerice de comunicații- Procesoare și sisteme de achiziție- Tehnici moderne de programare- Modelare statistică și stocastică- Metodologia proiectării și cercetării | <p>Disciplină opțională:</p> <ul style="list-style-type: none">- Media digitală- Proiectarea sistemelor pentru eActivități |
| Tehnologii avansate multimedia | Tehnologii Web 2.0 |
| Programare multimedia | Interactivitate și usabilitate |
| Etică și integritate academică | Design grafic |
| Practica de cercetare | Practica de cercetare |

Curricula – master Tehnologii Multimedia



| Semestrul III | Semestrul IV |
|--|-----------------------------------|
| Disciplină opțională: <ul style="list-style-type: none">- Antreprenariat și inovații digitale pentru mediul de afaceri- Comerț electronic- eGuvernare instituțională- Sustenabilitate și inovare în societate | Stagiu de practică de cercetare |
| Tehnologii instrucționale | Elaborarea lucrării de disertație |
| Servicii electronice digitale | Examen de disertație |
| Sisteme Internet of Things | |
| Practica de cercetare | |

Competențe asigurate

Cadrul Competențelor Digitale pentru Cetățeni (DigComp 2.1)

Categories of digital skills:

1. Information and data literacy,
2. Communication and collaboration,
3. Digital content creation,
4. Safety/Security,
5. Problem solving.





Celebrating 25 years of Multimedia Centre
in Politehnica University of Timisoara

2021

1999 first graduates in Multimedia



2021 Graduation Multimedia Technologies –
engineering, bachelor level



Digital Education Campus Virtual UPT CVUPT



Domenii creative în dezvoltare

Open Data – Open Science



<http://mysmartcity.ro/>

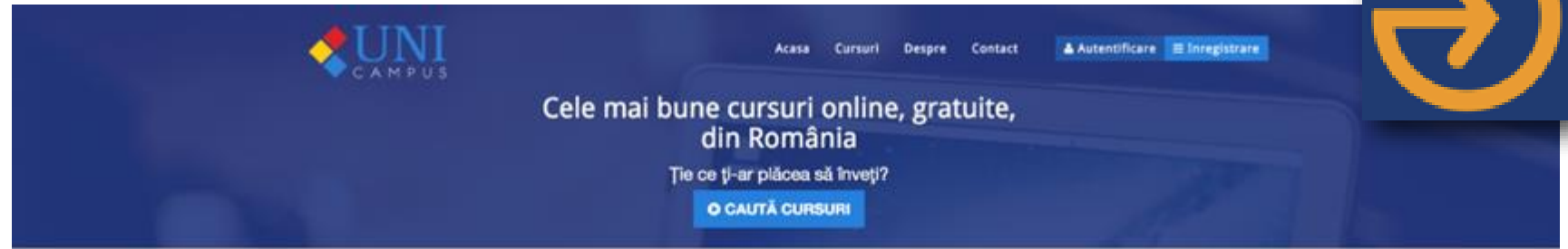


Creative areas

2023 Timișoara 2023
European Capital of Culture



Since 2016 MOOC



Cele mai noi cursuri



M-commerce (Comert mobil)



Open Education Week 2015

FEATURED IN



Open Education Week 2016

15 mai
© 2016



10 aprilie
© 2016



10 aprilie
© 2016



www.unicampus.ro





DigiCulture Courses – online/ blended learning, free courses

www.unicampus.ro

1. The Internet, World Wide Web and introduction to the digital world

2. Digital Content & Publishing (including wikis)

3. Data Protection and Open Licenses

4. Digital Curation - Digital Libraries and Museums

5. Digital Safety, Security and Ethics

6. Digital Storytelling

7. Digital Audiences, Digital Analytics (Google, Facebook, Twitter, SEO)

8. Social Media for Culture

9. Augmented and Virtual Reality

10. Mobile Apps and Mobile User Experience



11. Digital Management in Culture

12. Digital Communication & Presentations

13. Online and Mobile Digital Media Tools (audio-video)



<https://digidculture.eu/>

DigiCulture Courses – online/ blended learning, free courses

Home / My courses / DigiCulture / DigiCulture Courses - English / AVR_EN

Overall progress % 27

COMPLETION PROGRESS

Mouse over or touch bar for info.

Overview of students

COURSE BADGE

DIGITAL culture

Augmented & Virtual Reality

BASIC LEVEL TRAINING

You will earn this badge by completing all the activities in the course.

COURSE DEVELOPERS

AALBORG UNIVERSITET

- Bastian I. Hougaard
- Hendrik Knoche
- Aleksandra Lazevska

Learning Objectives:

This course plans to give participants general knowledge on:

- Explore Use Cases from Creative Industry of Virtual Reality and Augmented Reality.
- How to Design for Virtual Reality
- How to Design for Augmented Reality
- Create their own Virtual Reality experience.
- Create their own Augmented Reality experience.

Competencies:

Digital competencies based on DigComp 2.1:

- Stakeholders needs in terms of Digital Content Creation

Outcomes:

On completion of this course, participants will be able to:

- Understand the role of Augmented and Virtual Reality to create experiences
- Use Digital online tools to create their own VR/AR experiences
- Explore variations and boundaries of AR/VR technology with concepts such as Projection Mapping, 360 videos and commercial applications like Pokémon GO

Activities:

Lecture 1.1: What is Virtual Reality

Knowledge Check-in - Test your knowledge here (Required)

1. Virtual Reality Progress: 50%

2. Create Your Own VR Progress: 50%

3. 360 experiences Progress: 0%

2. Create Your Own VR

This section encompasses:

- A tutorial on how to use 360 images and Cospaces to make Virtual Reality
- A 360 image you can use to make your own

You will learn:

- How to use Cospace

2.1: Design an exhibition in VR with Cospaces (5 minutes) [Progress: 100%]

Share your VR prototype! [Progress: 0%]

Your progress

5. AR! Create Your Own! Progress: 0%

Examination Progress: 33%

<https://digiculture.eu/>

Training: Free online/ blended learning in Digital Culture - DigiCulture OPEN BADGES



DigiCulture – Course completion Certificates

The screenshot displays the Moodle Certificate Manager interface. On the left, a sidebar lists various elements that can be added to the certificate, such as Background, Title, Fullname, QR Code, VerificationURL, Text1, Text2, CourseName, text3, IssueDate, ProjectCoordinator, DA, Signature, text4, and text5. The main area shows a preview of a certificate template titled 'Certificate of completion'. The certificate text reads: 'This is to certify that [Name] successfully completed the [Course Name] as part of the DigiCulture Project on [Date]'. The project coordinator is listed as Dr. Diana Andone. The certificate includes a QR code and logos for the Digital Culture project and the European Union. A 'New page' button is visible in the top right corner.

- Course Certificate
- Certificate Manager
 - Part of Moodle Workplace

The screenshot displays the Moodle Certificate Manager interface for a German certificate template titled 'Abschlusszertifikat'. The certificate text reads: 'Hiermit wird bestätigt, dass [Name] den Kurs [Course Name] im Rahmen des DigiCulture Projekts am [Date] erfolgreich abgeschlossen hat.' The project coordinator is listed as Dr. Diana Andone. The certificate includes a QR code and logos for the Digital Culture project and the European Union. A 'New page' button is visible in the top right corner.



EBSI Early Adopters: Multi-University Pilot

2 European universities alliances, +18 universities from +15 countries

EBSI4RO participates in the EA Programme – July2021-December 2023

Blockchain

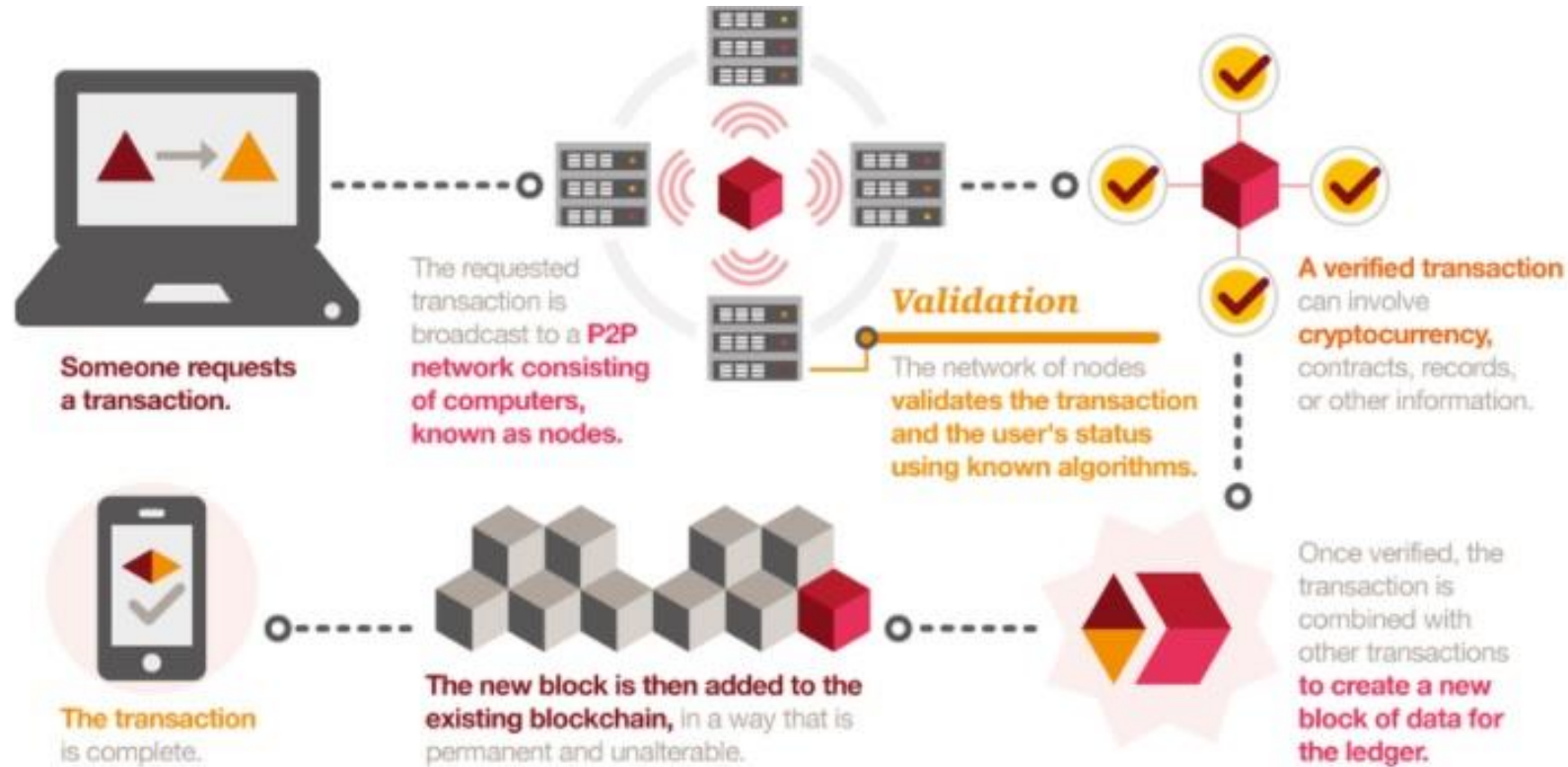


Technologies to shape the Creative Economy



Domenii creative în dezvoltare

Tehnologii Blockchain



Connecting Romania through Blockchain

The first successful pilot

Beginning of 2021, the “Early Adopters”, 21 projects from 18 European countries participated in the first pilot programme of EBSI. Each project's private and public sector partners were given early access to the pre-production environment of EBSI and were invited to develop their own pilot projects to address specific business or governmental use cases involving the exchange of verifiable credentials in the education domain.

From national to cross-border pilots

In July 2021, 2 European universities alliances and 11 universities from 11 countries joined their forces to create the so-called “multi-University pilot” during which they identified, designed and delivered 6 cross-border scenarios, together.



Transcript of records

A student gets a master diploma after receiving a transcript of records validated by Erasmus.



Bachelor / Master Degree

A student applies for a PhD with a Bachelor/Master degree from a foreign country.



Municipality Credentials

A student gets access to local discounts using municipality credentials based on a European student card.



<https://ec.europa.eu/digital-building-blocks/wikis/display/EBSI/Early+Adopters+Programme>

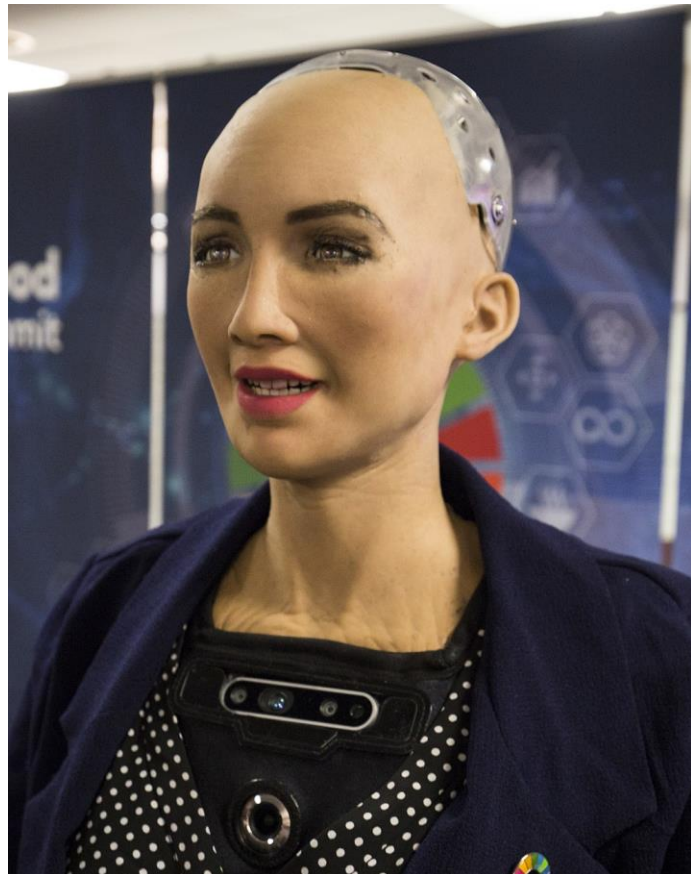
Technologies to shape the Creative Economy

Internet of Things

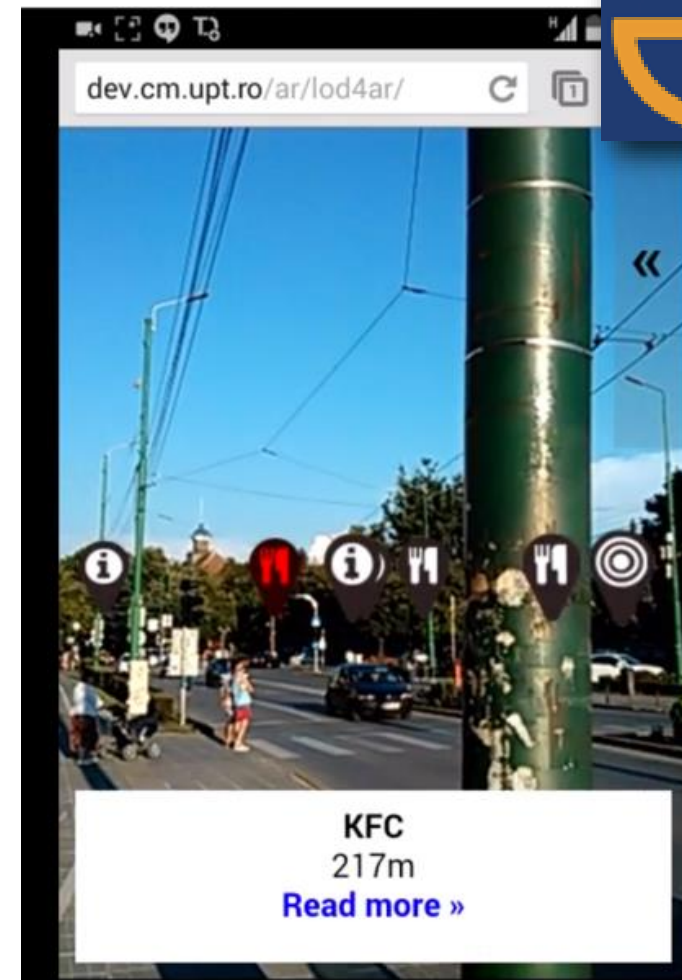


Technologies to shape the Creative Economy

Artificial Intelligence

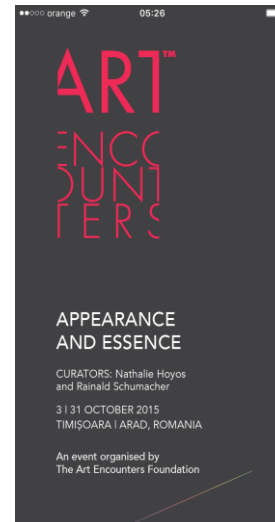
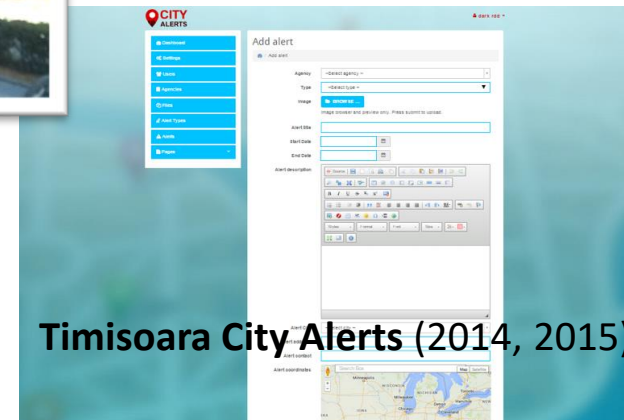


Augmented Reality / Virtual Reality



Applications

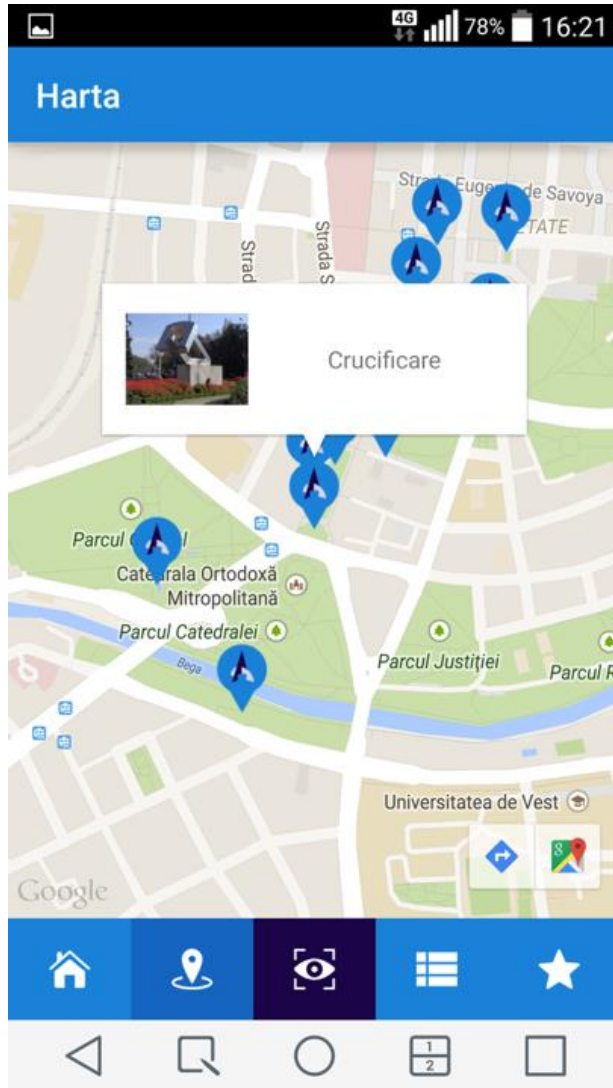
60 applications, CDs, websites, online campus, mobile apps, ...



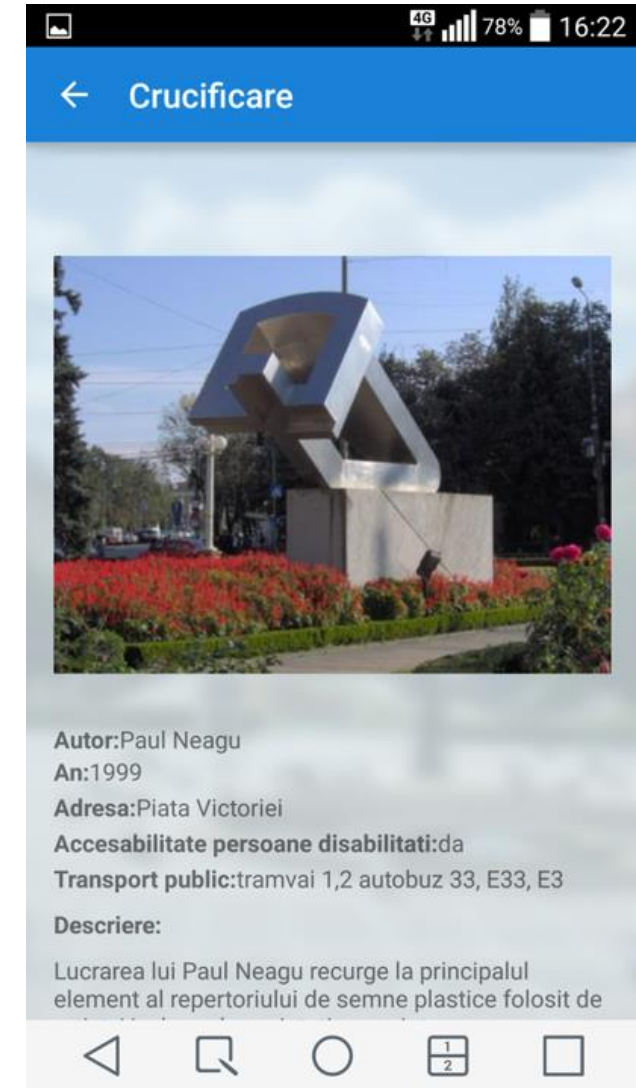
Creative topics for the last period in UPT

Interactive learning





Timisoara City Art Cultural Heritage



Events, workshops, Hackathons



TIMIȘOARA OPEN CULTURE HACKATHON
 PRIMUL HACKATHON DIN ROMÂNIA DE REUTILIZARE A DATELOR CULTURALE
 18-19 aprilie 2015
 Biblioteca Centrală Universitară "Eugen Todoran" Timișoara
www.timisoara.datedeschise.ro

van Rijn, Rembrandt, *Rondul de noapte*,
 1642, Rijkmuseum, Olanda,
<https://www.rijksmuseum.nl>

Organizatori



Parteneri



Finanțator



Muzeu virtual

Peter Jecza – biografie

<https://jecza.ro/>



TRIADE
FOUNDATION



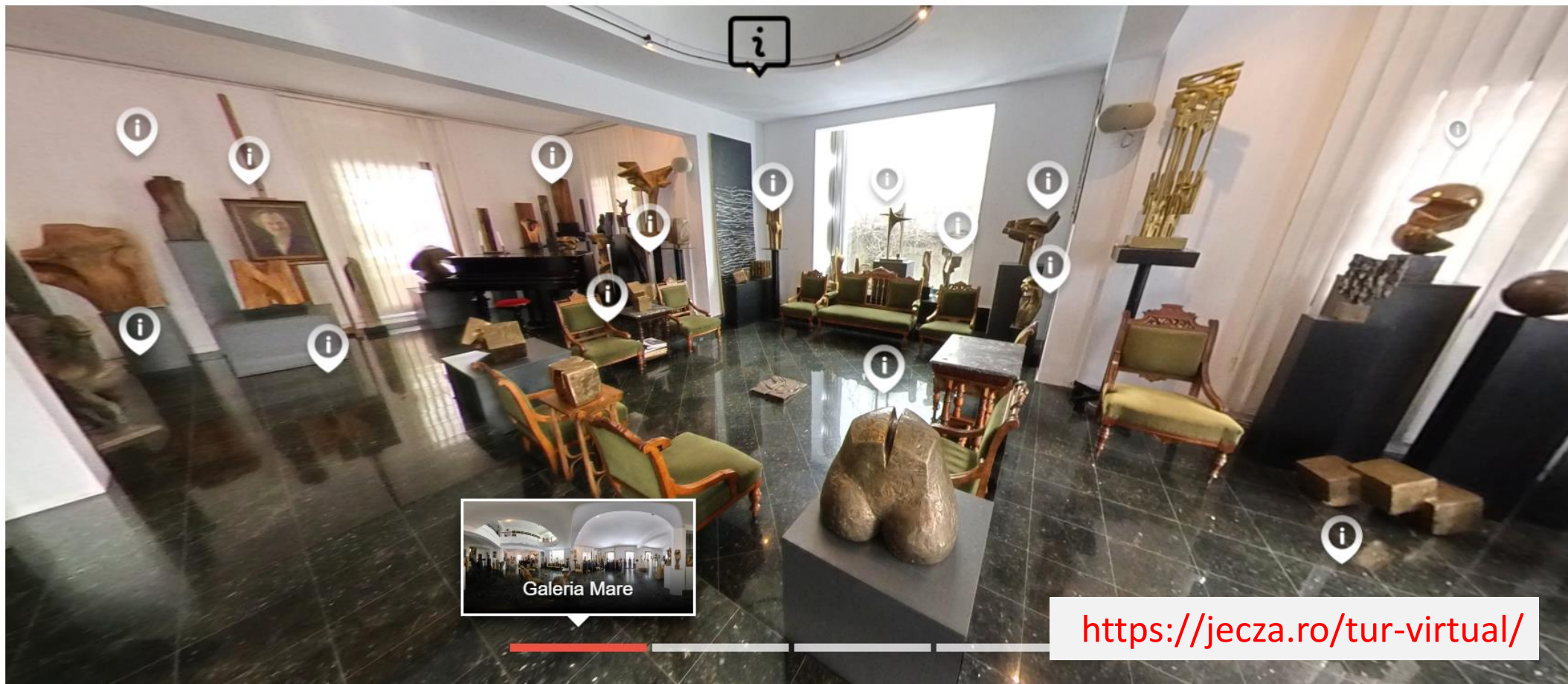
Jecza Gallery



MINISTERUL CULTURII

Tur virtual

Lucrările sculptorului Peter Jecza își au de peste 20 de ani spațiul care le pune în valoare. Cunoscut, generic, drept Casa Jecza, acest spațiu și-a delimitat, în timp, funcții distincte, subîmpărțindu-se și redefinindu-se în consecință. Împărțite între Galeria mare, Galeria mică, Pasajul de la balcon sau Biblioteca din mansardă, lucrările se oferă vizitatorului care parcurge turul virtual, lăsându-l să simtă atmosfera locului care le găzduiește.



Creative topics for the last period in UPT

Virtual museum





MECIPT

De la MECIPT la calculatoarele cuantice

UPT Virtual Museum



<https://muzeu.upt.ro/>

MUZEUL DIGITAL INTERACTIV AL ȘTIINȚEI ȘI TEHNOLOGIEI INFORMAȚIONALE

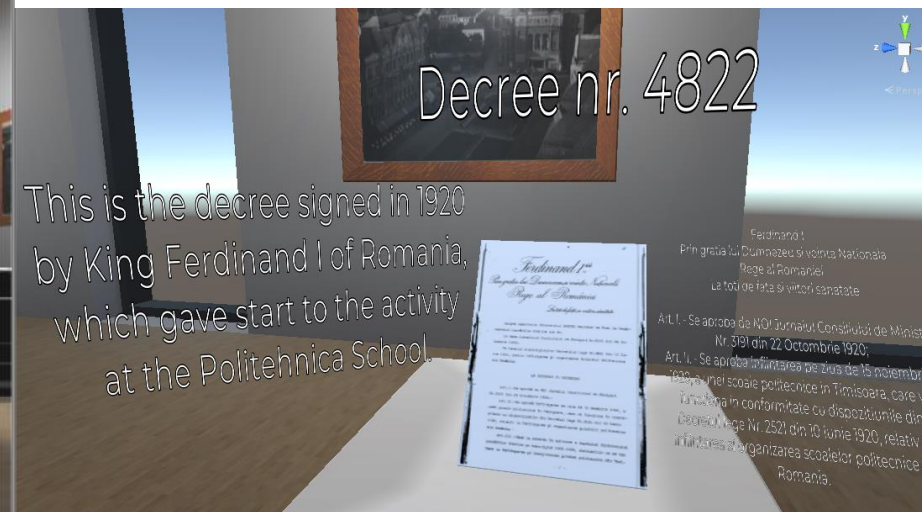
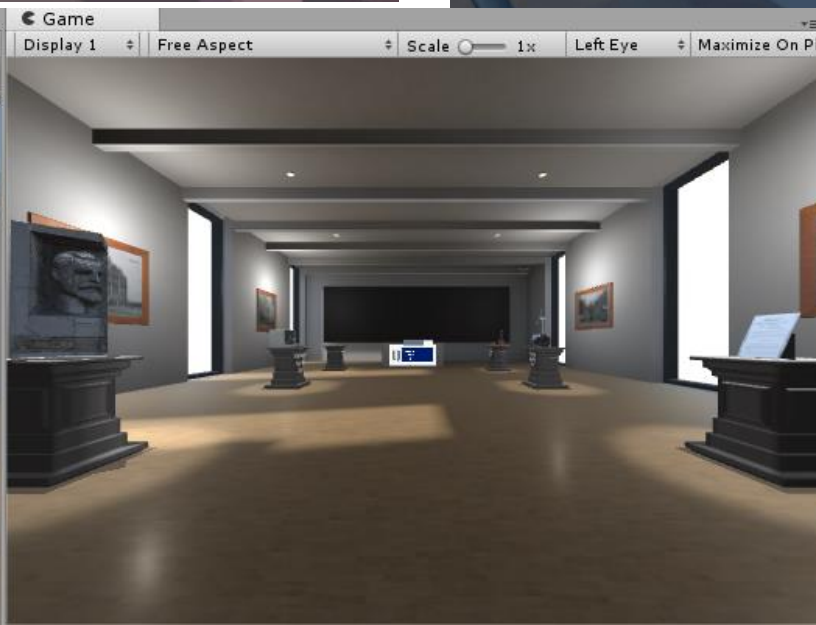
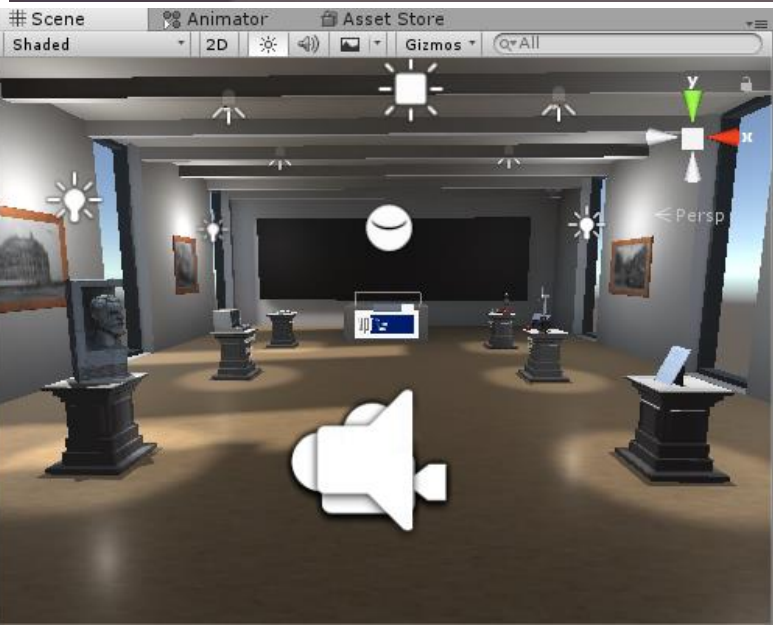
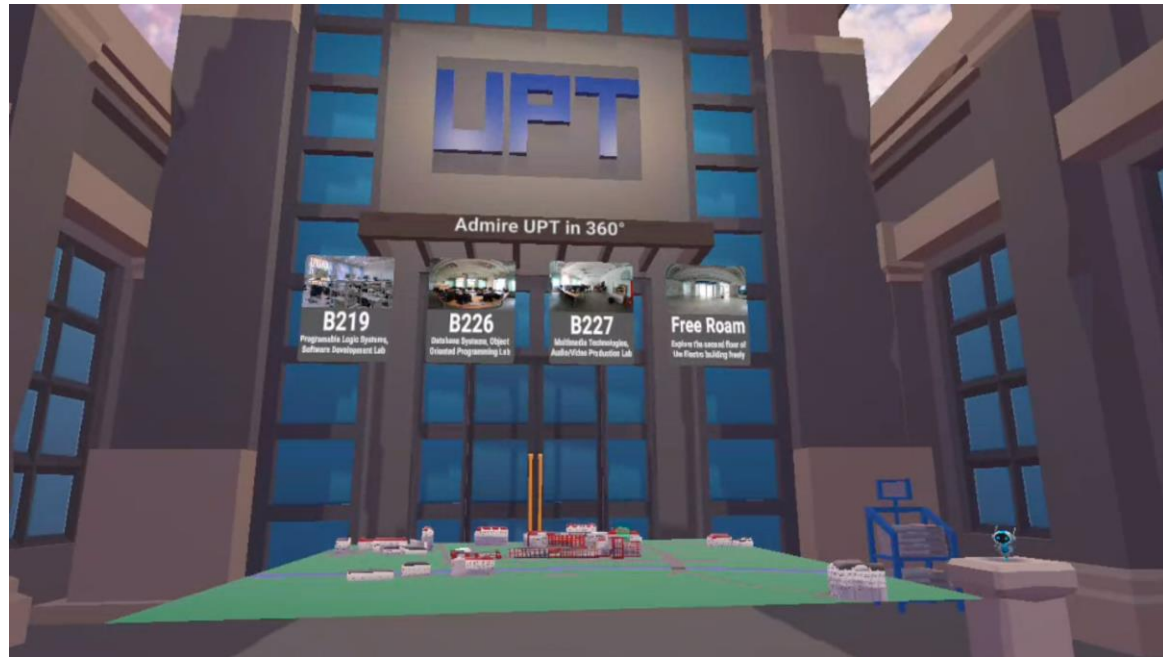


Panou de control MECIPT-1

MECIPT-1, pus în funcțiune în anul 1961, era un calculator tipic din generația I cu peste 2000 de tuburi electronice, zeci de mii de componente pasive, memorie externă un tambur echivalent 3 kilobiți, introducere de date aflate pe o bandă de hârtie perforată,

Muzeul UPT
tur
virtual

UPT in VR





SPOTLIGHT HERITAGE TIMIȘOARA



Spotlight Heritage Timisoara Patrimoniul sub reflectoare Timișoara



ATU™ 1.0. - S.T.A.R.T.



Finanțat de
Municipiul Timișoara
prin Centrul de Proiecte



MINISTERUL CULTURII



Spotlight Heritage Timisoara

2023 Tim
Eur

- A digital story
- A website – 3 levels of data
- A mobile application with augmented reality
- Virtual reality applications, NFTs
- A museographic exhibition at the headquarters of the **National Museum of Banat**
- A street exhibition in public places in the neighbourhoods
- Street theatre and dance shows with videomapping and AR
- Your Story - your memories or events about Timișoara





Palatul Hochstrasser

Bulevardul Carol I nr. 10

Vedeți detalii

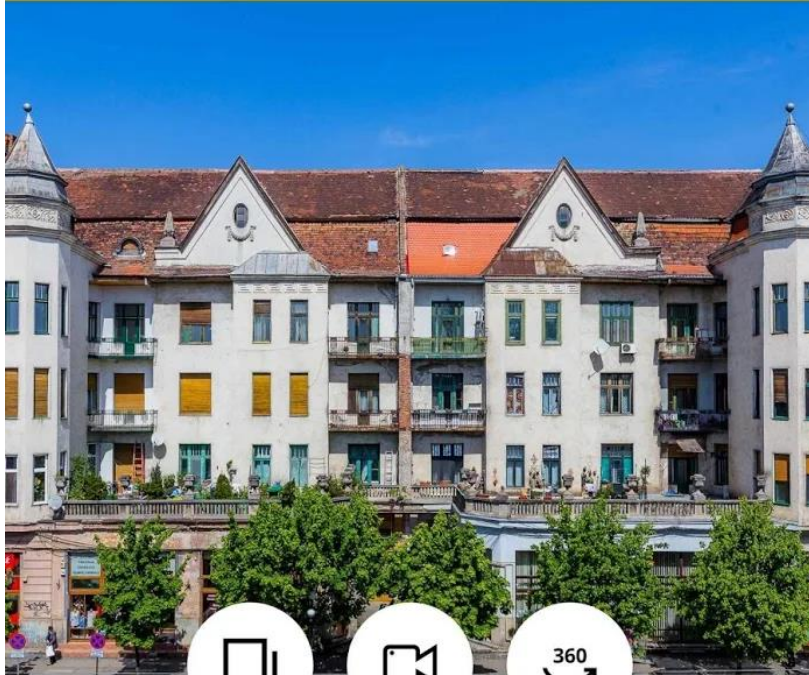


AR

Palatul Hochstrasser

Iosefin

Bulevardul Carol I nr. 10

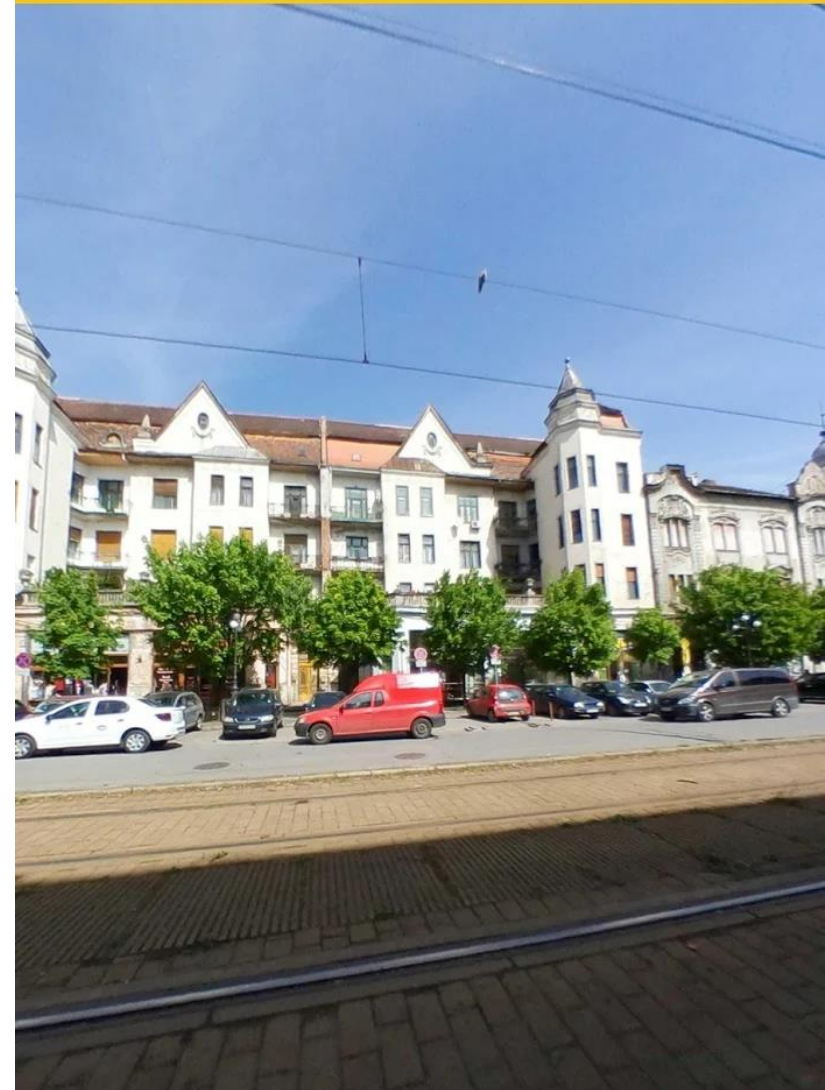


Palatul Hochstrasser

Bulevardul Carol I

Palatul János (Johann) Hochstrasser, construit între 1912–1914 a fost a doua clădire cu trei etaje din Iosefin; Aparține de curentul Secession târziu, cu forme geometrice, anticipând stilul Art Deco.

<https://spotlight-timisoara.eu/mobil-ar-vr/>



Spotlight Timisoara AR VR

- AR VR Mobile interface



Spotlight Heritage Timisoara 2019-2024

- digital artefacts
are in Romanian -
English

- Creative
Commons cultural
heritage data

- Europeana.eu



SPOTLIGHT
HERITAGE
TIMISOARA

2023 Timișoara 2023
European Capital of Culture



Aplicația este **Spotlight Timișoara** este disponibilă aici:



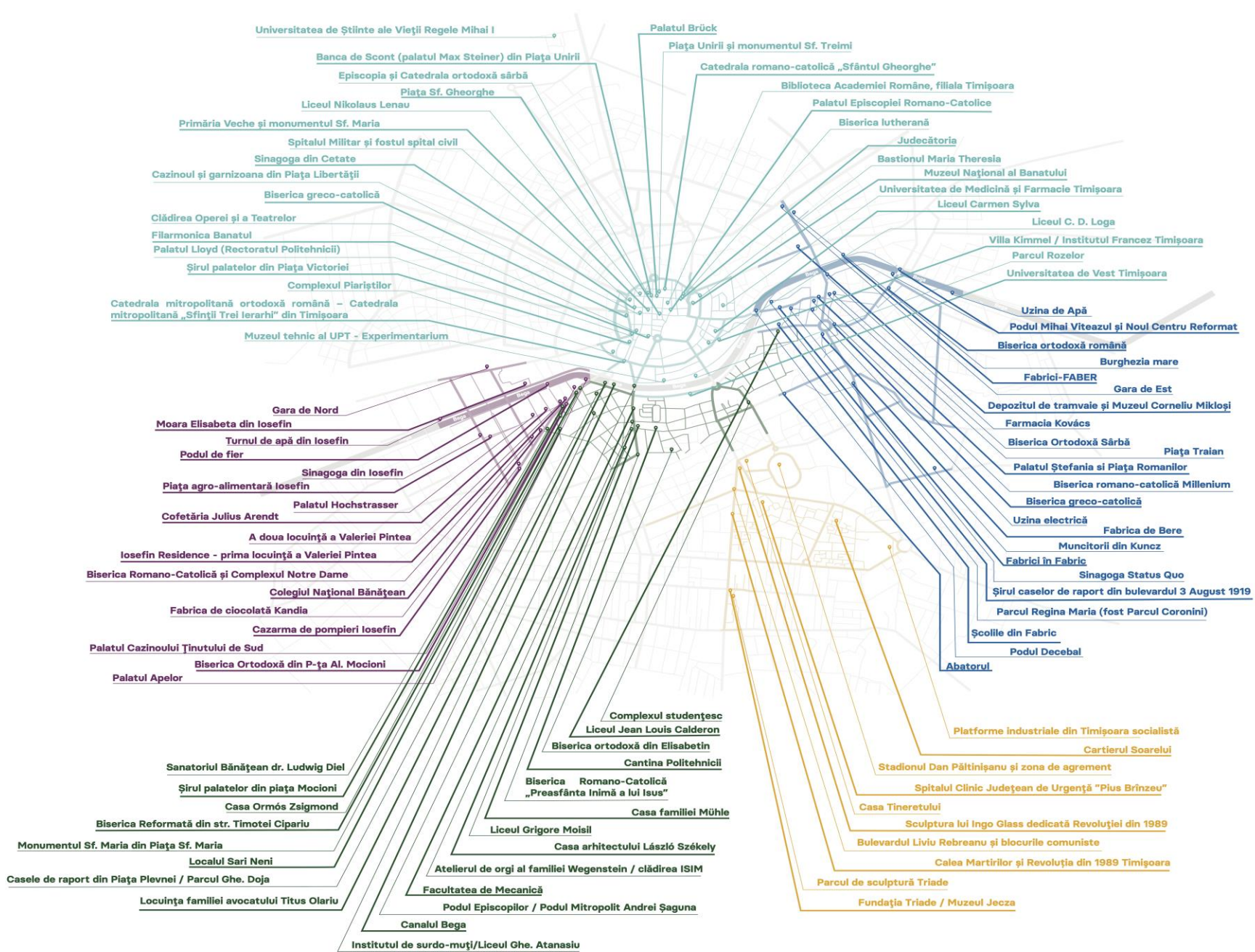
sau poate fi descarcată folosind următorul QR-code:



spotlight-timisoara.eu

Spotlight Heritage Timisoara 2019-2024

•106 landmarks



Digital & Data Timisoara 2023

- Unique platform for integration, collection, archiving of cultural data from Timisoara European Capital of Culture
- Indexing and using similar datasets
- Connection with repositories & Europeana



<https://data.timisoara2021.ro/>



Festival internațional de Cultură și Patrimoniu Digital

4 mai - 30 iulie 2023

IAFeS International Conference NETTIES

25 - 26 mai 2023

Cazarma U

Bastionul
Maria Theresia

Rectorat UPT

ExperimentariumTM
Muzeul Tehnic UPT

Electro UPT



Spotlight Heritage Timișoara / Patrimoniul sub reflectoare este o inițiativă culturală digitală a Universității Politehnice Timișoara realizată în parteneriat cu Muzeul Național al Banatului, parte a Programului Cultural Timișoara 2023 Capitală Europeană a Culturii. Proiect cultural co-finanțat de Municipiul Timișoara prin Centrul de Proiecte, Consiliul Județean Timiș, Ministerul Culturii, EEA and Norway Grants.

spotlight-timisoara.eu





Interactive Digital Media Student Contest



since 2014



- Dezvoltare Web / Web Development
- Dezvoltare pentru dispozitive mobile / Mobile development
- Productie Audio-Video / Audio-Video production
- Design Grafic / Graphic Design
- Internet of Things
- International Spotlight Heritage Student Contest



NOKIA

DELTA TEL

SafeFleet



HAUFE Group

Nutechnologies

ASOCIATIA ONE SOURCE

BusyMachines

idmsc.cm.upt.ro

Movidius
an intel company

NEW HAIRCUT

cobalt sign

SafeFleet

océ
A CANON COMPANY

AVITECH
more than technology

<https://idmsc.cm.upt.ro/>
[e-spres-on]

Interactive Digital Media Student Contest



IDMSC
ISHSC Spotlight Heritage

14 iunie 2024



<https://idmsc.cm.upt.ro/>

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Multimedia Center

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