

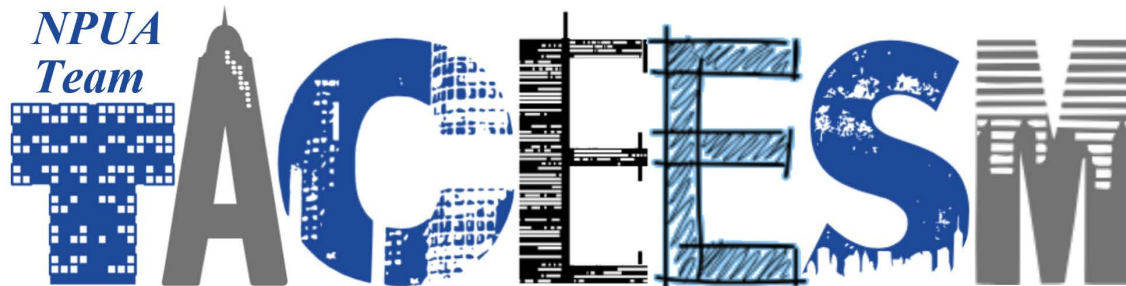


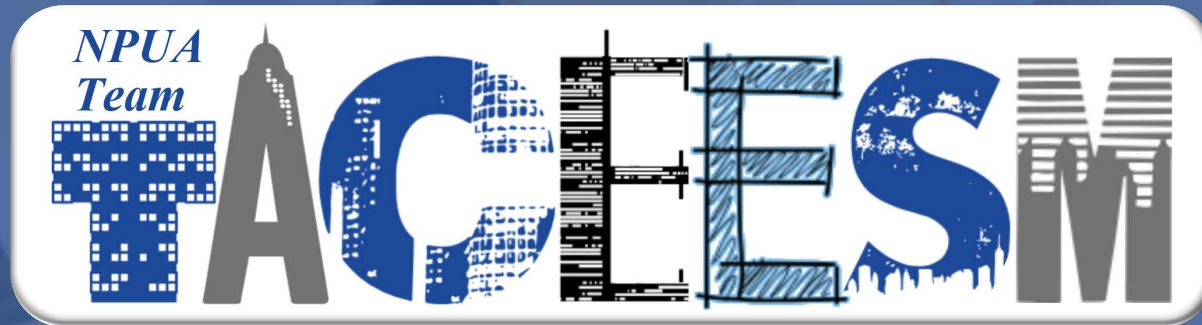
TACEESM 2020-23

Digital Transformation in Architectural and Civil Engineering Education



*NPUA
Team*





Transforming Architectural and Civil Engineering Education towards a Sustainable Model (TACEESM)

*Ճարտարապետության և
քաղաքաշինության կրթության
վերափոխումը կայուն մոդելի*

TACEESM Consortium Members

Program countries:

1. Università G. d'Annunzio Chieti-Pescara, (Dipartimento di Architettura) – Ud'A, **Italy** – **Project Coordinator**
2. University of Maribor (Faculty of Civil Engineering, Transportation Engineering and Architecture) – UM, **Slovenia**
3. The University of Malaga (School of Architecture and of Engineering) – UMA, **Spain**
4. Leipzig University of Applied Sciences (Faculty of Architecture and Social Sciences, Faculty of Civil Engineering) – HTWK, **Germany**

TACEESM Consortium Members

Partner countries:

5. International Burch University – IBU, **Bosnia and Herzegovina**
6. University of Bihać – UNBI, **Bosnia and Herzegovina**
7. Dzemal Bijedic University of Mostar – UNMO, **Bosnia and Herzegovina**
8. National University of Architecture and Construction of Armenia – NUACA, **Armenia**
9. National Polytechnic University of Armenia – NPUA, **Armenia**
10. Belarusian National Technical University – BNTU, **Belarus**
11. Brest State Technical University – BrSTU, **Belarus**
12. Cube Design doo, Sarajevo – CD, **Bosnia and Herzegovina**
13. KF Gradnja doo, Bihać – KFG, **Bosnia and Herzegovina**
14. Chamber of Architects of Armenia – CARA, **Armenia**
15. Institute of Housing – NIPTIS, **Belarus**

Wider Objective of the Project

- To improve quality of higher education in partner countries in the field of architecture and civil engineering and enhance its relevance for the labor market needs and in accordance with European growth and development strategies

Specific Project Objectives:

- To increase capacity building for study in architecture and civil engineering offered both in English and in local languages at BSc and MSc levels
- To develop, accredit and implement new courses in architecture and civil engineering at the BSc (12 courses) and MSc (11 courses) levels according to Bologna requirements by the end of the project
- To develop **innovative academic environment** for architecture and civil engineering programs throughout the cooperation with industry

Activities and Expected Outcomes

WP 1 Current programmes in EU and partner HEIs - State of the Art (15-12-2020 (M2) – 14-04-2021 (M5))

Lead Organisation – University of Maribor (Faculty of Civil Engineering, Transportation Engineering and Architecture) - UM, **Slovenia**,
Co-Leader – Brest State Technical University – BrSTU, **Belarus**

ACT 1.1 Analysis of related courses/programmes and practices at EU universities / **Report on existing EU HEIs programmes and practices**

ACT 1.2 Analysis of related programmes and practices at partner universities / **Report on existing partner HEIs programmes and practices**

ACT 1.3 Analysis of market needs / **Benchmark on market needs**

ACT 1.4 Creation of the learning outcomes based on the needs from labour market and industry / **Defined learning outcomes based on the needs from labour market and industry**

Side Effect for NPUA

WP 1 Current programmes in EU and partner HEIs - State of the Art (15-12-2020 (M2) – 14-04-2021 (M5))

An analysis of the obtained results allows to understand the needs of partner universities in terms of the functionality and capabilities of the on-line platform for teaching process that will be developed in WP 3

Activities and Expected Outcomes

WP 2 Development of new courses in the field of architecture and civil engineering (15-04-2021 (M6) – 14-09-2022 (M22))

Lead Organisation – Università G. d'Annunzio Chieti-Pescara,
(Dipartimento di Architettura) – Ud'A, **Italy**,

Co-Leader – University of Bihać – UNBI, **Bosnia and Herzegovina**

ACT 2.1 Modernization of existing courses at BSc and MSc level /
Existing 13 courses at BSc and 7 courses at MSc level modernized

ACT 2.2 Design of new courses / curricula at BSc level / New 12
courses at BSc level developed

ACT 2.3 Design of new courses/ curricula at MSc level / New 11
courses at MSc level developed

ACT 2.4. Accreditation of the programme at the partner universities /
Accreditation of new courses by the national accreditation institution
at partner universities

Expansion of NPUA Functions

WP 2 Development of new courses in the field of architecture and civil engineering (15-04-2021 (M6) – 14-09-2022 (M22))

As a result of the analysis of the processes of modernization of existing and development of new courses, a decision was made, agreed with the coordinators of the Project, to somewhat expand the functions of NPUA in comparison with the application of the Project.

In particular, it is assumed:

- ✓ modernization in Vanadzor branch of NPUA 2 current courses:
 - **“Computer-aided architectural design”** - BSc level, 4th semester,
 - **“Methods of calculation of building structures and structural design”** - MSc level, 1st semester and 2nd
- ✓ development of a new course **“Digitalization in the Field of Civil Engineering”** - MSc level, 1st and 2nd semesters

Activities and Expected Outcomes

WP 3 Capacity building (15-09-2021 (M11) – 14-11-2022 (M24))

Lead Organisation – University of Maribor (Faculty of Civil Engineering, Transportation Engineering and Architecture) - UM, **Slovenia**,

Co-Leader – National Polytechnical University of Armenia – NPUA, **Armenia**

ACT 3.1 Training of partner HEIs staff for current relevant topics in the field of architecture and civil engineering / **Trained partner HEIs staff for current relevant topics in the field of architecture and civil engineering**

ACT 3.2 Training of partner HEIs staff in new innovative teaching methods / **Trained partner HEIs staff in new innovative teaching methods**

ACT 3.3 Writing new teaching materials for related courses / **Teaching materials developed and published**

ACT 3.4 Developing **on-line platform that will be used for teaching process** / **On-line platform for teaching process**

ACT 3.5 Purchasing necessary literature, equipment and software / **Literature, equipment and software purchased**

Activities and Expected Outcomes

WP 4 University enterprise collaboration (15-12-2021 (M14) – 14-11-2023 (M36))

Lead Organisation – The University of Malaga (School of Architecture and of Engineering) – UMA, **Spain**,

Co-Leader – Dzemal Bijedic University of Mostar – UNMO, **Bosnia and Herzegovina**

ACT 4.1 Developing **network between the industry and the partner university** / **Developed network between the industry and the partner universities** (interactive portals for industry partners and sponsors)

ACT 4.2 Creating internship program between partner universities / **Internship program at partner universities created**

ACT 4.3 Creating 5 joint projects between HEIs and industry (Master thesis) / **5 joint projects between HEIs and industry (Master thesis) created**

Activities and Expected Outcomes

WP 5 Implementation of new programmes (15-10-2022 (M24) – 14-11-2023 (M36))

Lead Organisation – Leipzig University of Applied Sciences (Faculty of Architecture, Faculty of Civil Engineering) – HTWK, **Germany**,

Co-Leader – Belarusian National Technical University – BNTU, **Belarus**

ACT 5.1 Enrolment of new students at all 2 levels of study – administrative procedures / **New students at all 2 levels of study enrolled – administrative procedures**

ACT 5.2 Delivering new courses at BSc level at the partner universities / **New 8 courses delivered at BSc level at partner universities**

ACT 5.3 Delivering new courses at MSc level at the partner universities / **New 20 courses delivered and offered at the MSc level at partner universities**

ACT 5.4 Preparation of the report on new programs / **Evaluation report on new implemented courses**

Activities and Expected Outcomes

WP 6 Quality Control and Monitoring (15-11-2020 (M1) – 14-11-2023 (M36))

Lead Organisation – Leipzig University of Applied Sciences (Faculty of Architecture and Social Sciences, Faculty of Civil Engineering) – HTWK, **Germany**

QPLN 6.1 Creation of procedures for quality control and monitoring / **Quality control mechanism created**

QPLN 6.2 Internal quality control activities / **Internal quality assurance reports**

QPLN 6.3 External quality assurance activities / **External quality assurance reports**

QPLN 6.4 External financial audit / **External financial audit**

Activities and Expected Outcomes

WP 7 Dissemination & Sustainability (15-11-2020 (M1) – 14-11-2023 (M36))

Lead Organisation – International Burch University – IBU, BiH,
Co-Leader – National University of Architecture and Construction of Armenia

DISS 7.1 Establishing the dissemination plan / Establishing the dissemination plan

DISS 7.2. Setting up and maintaining the project Web site / Setting up and maintaining the project Web site

DISS 7.3 Dissemination activities within partner country universities / Dissemination activities within partner country universities

DISS 7.4 Dissemination events with stakeholders, labour market and local authorities / Dissemination events with stakeholders, labour market and local authorities organised

DISS 7.5 Organizing Final Conference / Final Conference organized

EXP 7.6 Creation of Financial and institutional sustainability plan / Financial and institutional sustainability strategic plan created

EXP 7.7 Sustainable cooperation with labour market / Sustainable cooperation with labour market partners established

Activities and Expected Outcomes

WP 8 Project management (15-11-2020 (M1) – 14-11-2023 (M36))

Lead Organisation – Università G. d'Annunzio Chieti-Pescara,
(Dipartimento di Architettura) – Ud'A, **Italy**

MNGT 8.1 Overall project management and administration / **Overall project management and administration**

MNGT 8.2 Project coordination meetings / **Project Coordination Meetings**

MNGT 8.3 Periodical and final reports / **Periodical and final reports prepared**

Impact & Sustainability

Main expected results impacting on education and ensuring sustainability:

- ✓ Defined learning outcomes based on the needs from labour market and industry
- ✓ Modernized existing and designed new courses at BSc and MSc levels
- ✓ Accredited and implemented in the regular education process updated study programmes
- ✓ Staff trained for current relevant topics in the field of architecture and civil engineering, as well as in new innovative teaching methods
- ✓ Developed **innovative academic environment including online platform for teaching process and interactive portals for cooperation with industry partners and sponsors hosted on independent cloud**

*Thank you
for attention
and patience*

Gevorg
Margarov



 TACEESM 2020-23

#ErasmusDays–NPUA, TACEESM Project,
14 October 2021

Co-funded by the
Erasmus+ Programme
of the European Union

