



BIM4ENERGY ERASMUS+

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BIM digital competencies to evaluate and improve the energy efficiency of European buildings.

A digital way towards positive energy districts

# BUILDING SERVICES FOR REGENERATIVE CITIES

## Unique master's degree in Europe oriented towards Net Zero City

Speaker: UTCN

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Ayuntamiento de Ceutí



Universidad Politécnica de Cartagena





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The **New Master Course** is the result of more than two years of work and more than 600 pages dossier, with the support of **Swiss Embassy**, **European Energy Award Association**, **Romania Green Building Council**, and many international and local companies.

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Catre: **Universitatea Tehnica din Cluj-Napoca**  
**Building Services for Regenerative Cities**



### Scrisoare de susținere

Consiul Român al Clădirilor Verzi - Romania Green Building Council (RoGBC [www.rogbc.org](http://www.rogbc.org)) reprezentată de Președintele Andrei Botiș susține crearea unui Masterat în limba engleză **Building Services for Regenerative Buildings** la Facultatea de Ingineria Instalațiilor din cadrul Universității Tehnice din Cluj-Napoca.

RoGBC este o asociație non-profit, apolitică, formată din organizații active în toată țara. Promovăm responsabilitatea față de mediu și eficiența energetică pe durata ciclului de viață a unei clădiri (de la faza de design, construcție până la operare și deconstruire), iar masteratul propus de Universitatea Tehnică din Cluj-Napoca este menit să formeze specialiști extrem de solicitați la ora actuală.

RoGBC va sprijini cu documentație și specialiștii din cadrul companiilor membre acest masterat, iar ca deținător al licenței European Energy Award în România, își dorește pregătirea de profesioniști în managementul orașelor.

Zurich, 29 November 2021

#### Master programme - Building Services for Regenerative Cities

Dear Madam, dear Sir,

The Association European Energy Award AISBL is supporting the new Master degree in English, **Building Services for Regenerative Cities**, where the concept and the measures of European Energy Award will be taught and taken as a reference. We will be happy to support the new master with access to documentation and Best Practice Library, which can be a source of inspiration for the students.

The term of **REGENERATIVE** is from COST RESTORE definition:  
“Enabling social & ecological systems to evolve”

european  
energy award

ACTING LOCALLY FOR THE CLIMATE



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The timing for launching this Master Course is spot-on: climate change, New Green Deal, 15% energy reduction in Europe, but most of all, the challenge for cities to become Climate Neutral.

So, students and professor will learn together how to succeed, with Cluj-Napoca and the university buildings as their playgrounds.





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If you are an **engineer** or an **architect**, working in for city council, contractors, design firms or real-estate developers, we are looking for you to enrol in this **brand-new Master** and become **part of the change**, with a futureproof domain.



This is the fourth English Master and is part of the internationalisation strategy of the University, with options for **Erasmus+** exchanges in **EUt+** or elsewhere in **EU** and **Switzerland**.





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# Educational Plan

## 1<sup>ST</sup> SEMESTER COURSES



Advanced Building Services - HVAC and Water Supply



Digital Design and Fabrication - BIM



Advanced Architecture



nZeB Buildings



Nearly Zero Energy Building



Circular Economy



Human Centric Lighting





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# Educational Plan

## 2<sup>ND</sup> SEMESTER COURSES



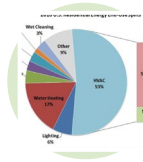
Building and City Assessment



Indoor Environment Quality and Well-being



Building Services Retrofit Solutions



Energy Analysis of a Building / City



Lifecycle Analysis



Ethics and Academic Integrity







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### Educational Plan 3<sup>RD</sup> SEMESTER COURSES



Urban Network Management



Management Tools and Programs for Regenerative Cities



Communication Skills



Renewable Energy Sources

Optional 1



Biomass



Geothermal



Wind



Urban Electric Infrastructure



Control Systems for Smart Homes and Cities

Optional 2



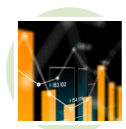
Hydroelectric



Solar



Project Management



Local, National and European Policies