





# **EULiST Blended Intensive Program**

"Monitoring clean energy in the EULiST campuses"

31 May – 13 October 2023 online and onsite in Athens, NTUA

Agenda for online courses

Within the framework of the Alliance <u>EULIST</u> "European Universities Linking Society and Technology", the National Technical University of Athens (NTUA), organizes in cooperation with Lappeenranta-Lahti University of Technology (LUT), Jönköping University (JU), Leibniz University Hannover (LUH), Institut Mines-Télécom (IMT), Slovak University of Technology in Bratislava (STU), University L'Aquila (UnivAQ), a **Blended Intensive Program** (BIP) with the title "Monitoring clean energy in the EULIST campuses".

#### TOPICS ADDRESSED

Participating academics and teaching staff members will share as lecturers and mentors best practices with students for monitoring the contribution of renewable resources in the energy mix, towards sustainable EULiST campuses. Moreover, during the program, thematic areas to be discussed include the promotion of research on clean energy technology, aligned with SDG 7 to ensure access to affordable, reliable, sustainable energy for all, as well as the European Green Deal and the European Education Area's Focus Topic "Green Education".

# **AGENDA**

| MAY 31 <sup>st</sup> , 2023    14:00-17:00 CEST |                                                                                                                                                                   |                                              |  |  |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--|--|
| 14:00-14:05                                     | Prof. Efi Dimopoulou School of Rural, Surveying and Geoinformatics Engineering, NTUA                                                                              | Welcome note                                 |  |  |
| 14:05–14.50                                     | Ing. Arch. Peter Morgenstein, PhD, Institute of Ecological and Experimental Architecture, STU Ing. Milan Husár, PhD Dept. of Spatial Planning and Management, STU | Green campuses<br>Best practices in Slovakia |  |  |
| 14.50–15.05                                     | Questions & Answers                                                                                                                                               |                                              |  |  |
| 15.05–15.25                                     | Interaction                                                                                                                                                       |                                              |  |  |
| 15:25–15:35                                     | Break                                                                                                                                                             |                                              |  |  |

| MAY 31 <sup>st</sup> , 2023    14:00-17:00 CEST |                                                                                                                                 |                           |  |  |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------|--|--|
| 15:35–16:20                                     | Kati Koikkalainen, Sustainability Manager, LUT Ass. Prof. Mr. Mika Luoranen LUT School of Energy Systems, Sustainable Solutions | Sustainable campuses      |  |  |
| 16:20–16:35                                     | Questions & Answers                                                                                                             | Best practices in Finland |  |  |
| 16:35–17:00                                     | Interaction                                                                                                                     |                           |  |  |

| JUNE 7 <sup>th</sup> , 2023    14:00-17:00 CEST |                                                                                                                        |                                                   |  |  |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--|--|
| 14:00-14.45                                     | Ingrid Bazin,<br>Mines-Ales, IMT                                                                                       |                                                   |  |  |
| 14.45–15.00                                     | Questions & Answers                                                                                                    | Green campuses Best practices in France           |  |  |
| 15.00–15.25                                     | Interaction                                                                                                            |                                                   |  |  |
| 15:25–15:35                                     | Break                                                                                                                  |                                                   |  |  |
| 15:35–16:20                                     | Prof. DrIng. Philipp Geyer, Institut für Entwerfen und Konstruieren, Faculty of Architecture & Landscape Sciences, LUH | Sustainable campuses<br>Best practices in Germany |  |  |
| 16:20–16:35                                     | Questions & Answers                                                                                                    |                                                   |  |  |
| 16:35–17:00                                     | Interaction                                                                                                            |                                                   |  |  |

| JUNE 14 <sup>th</sup> , 2023    14:00-17:00 CEST |                                                                                                                                                                           |                                                                          |  |  |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--|--|
| 14:00–14.45                                      | Prof. Irene Koronaki, Prof. Sotirios Karellas School of Mechanical Engineering, NTUA Prof. Eleni Alexandrou, Assist. Prof. Flora Bougiatioti School of Architecture, NTUA | Monitoring of Energy, Environmental performance of NTUA Campus           |  |  |
| 14.45–15.00                                      | Questions & Answers                                                                                                                                                       |                                                                          |  |  |
| 15.00–15.25                                      | Interaction                                                                                                                                                               |                                                                          |  |  |
| 15:25–15:35                                      | Break                                                                                                                                                                     |                                                                          |  |  |
| 15:35–16:20                                      | Assoc. Prof. Davide Di Battista, Thermal Machines and Energy Systems Sector, Energy Manager at University of L'Aquila                                                     | Monitoring of Energy,<br>Environmental performance of<br>L'Aquila Campus |  |  |
| 16:20–16:35                                      | Questions & Answers                                                                                                                                                       |                                                                          |  |  |
| 16:35–17:00                                      | Interaction                                                                                                                                                               |                                                                          |  |  |

# **LECTURERS PROFILE**

## Efi Dimopoulou

Professor at the School of Rural, Surveying and Geoinformatics Engineering, N.T.U.A., in the fields of Land Administration LA, Spatial Information Management, 3D Cadastres and 3D Modelling. Programme Director of the N.T.U.A. Inter-Departmental Postgraduate Course «Environment and Development». She has published 3 books; she has authored or co-authored 120 papers in scientific journals and reviewed conference proceedings and editorials, and she chaired International Conferences and Workshops in the fields of LASystems, modelling and standardization.

## Ing. arch. Peter Morgenstein

Ing. arch. Peter Morgenstein, PhD. (male) is a researcher in the Institute of Ecological and Experimental Architecture at the Faculty of Architecture and Design, Slovak University of Technology in Bratislava. He graduated in architecture from the Slovak University of Technology in Bratislava, Slovakia, where he has also finished his doctoral studies by defending his dissertation thesis titled: Typology of Solar Town Planning: Energy Cooperativeness of Urban Structures. From 2018 to 2022 he also worked at the Faculty of Architecture and Design in the position of vice-dean for international relations and development. Since 2013 he is also member of scientific staff at the Department for Building and Environment of the Danube University Krems, where from 2016 until 2018 he led the Centre for Architectural Heritage and Infrastructure. His research is focused on sustainable architecture and urban design, integral urban planning, smart cities and utilization of solar energy in architecture and urbanism. He authored and co-authored scientific publications, conference papers and a monograph (Solar Strategy for a Sustainable City). He has been core researcher in a number of national and international research projects and has tutored and co-tutored diploma and bachelor architectural studio projects at the Faculty of Architecture, STU Bratislava and worked with the office of Chief City Architect in Bratislava.

#### Ing. Milan Husár

Milan Husar is a lecturer and researcher at Spectra Centre of Excellence of the EU at Department of Spatial Planning, Institute of Management, STU Bratislava. He has participated in a number of national international research projects covering topics of smart cities, biodiversity protection and spatial planning. He has a PhD. Degree in spatial planning (2016). For the past 5 years he had been invited for multiple lecturers at Middle East Technical University at the Department of City and Regional Planning. As a Fulbright Scholar spent 6 months at Arizona State University working in Centre of Behavior, Institutions and the Environment founded as a sister centre of the Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis at Indiana University, as well as other research stays across Europe.

#### Kati Koikkalainen

She holds a M.Sc. in Energy and Environmental Technology, and she has received special education and teaching qualification. She is appointed as the Sustainability Manager for LUT University and LAB University of Applied Sciences. She is a member of the Advisory Committee member of ISCN (International Sustainable Campus Network), member of Finnish universities' working groups on responsibility and sustainable development. She is responsible for coordinating the sustainability work of LUT and LAB, climate action plans, reporting the universities impact in SDGs and engagement of staff members, students and other stakeholders and she is specialized in development of new operating models, strategic action plans for SDGs, creation of cooperation networks.

#### Mika Luoranen

Associated Professor at LUT University, School of Energy Systems; officially appointed supervisor to undergraduate and post-graduate /doctoral students; experienced at energy management related research projects; co-founder of a spin-off 'LCA Consulting'; peer reviewer to several international committees for funding applications.

#### **Ingrid Bazin**

Ingrid Bazin is a senior scientist in molecular biological development at IMT Mines Alès, an engineering school that is part of the Institut Mines-Télécom, the largest group of public engineering schools in France. She is also in charge of managing environmental and social responsibility at IMT Mines Alès. Professor Bazin holds a doctorate and a habilitation to direct research in molecular biology (University of Montpellier, France). In 2016, she was a visiting researcher at Texas AM University on the topic of biosensing. She has been involved in a number of research projects at IMT Mines Alès for the past 15 years. She publishes in scientific journals such as Sensors, Biosensors and Bioelectronics, Environmental Science and Pollution Research. Dedicated to finding solutions to environmental challenges, she is also involved in STEM projects and strongly supports the promotion of science among younger generations.

# Prof. Dr.-Ing. Philipp Geyer

Philipp Geyer has been Heisenberg Professor for Sustainable Building Systems at Leibniz Universität Hannover since 2022. Previously he was Visiting Professor for Digital Architecture and Sustainability at TU Berlin and Assistant Professor for Architectural Engineering at KU Leuven in Belgium. During this time, he has developed innovative methods of component-based machine learning for data-supported models for performance prediction in the building sector. As a postdoc and scientist at the ETH Zurich and the TU Munich, his work focused on digital modelling, simulation and systems engineering for energy efficiency and sustainability. Before that, he studied architecture with a focus on construction and technology at TU Berlin, where he did his doctorate with research stays at MIT on multidisciplinary optimization for the building industry. Since 2021 he has chaired the European Group for Intelligent Computing in Engineering (eg-ice). He is also a reviewer for the German Research Foundation (DFG) and the German Federal Foundation for the Environment (DBU) as well as several leading international scientific journals.

#### Prof. Dr.-Ing. Sotirios Karellas

Professor at the School of Mechanical Engineering of NTUA, Director of the laboratory of Thermal Processes, visiting Professor at the Technische Universität München and the Universität Bayreuth Germany. Member of the Greek delegation to the Programme Committee "Secure Clean and Efficient Energy" (2014-2021) and to the Coal and Steel Committee (COSCO) (2014 – 2019). His research is focusing on central and decentralized energy systems, Carbon Capture Storage and Utilisation, energy storage, Hydrogen energy, Zero Energy Buildings, co-, poly-generation, solar-thermal energy, biomass, Organic Rankine Cycle technology and heat pumps, Waste to energy. He has over 150 relevant publications in scientific Journals and Conferences and more than 5000 citations. He has supervised 6 Ph.Ds and he is currently supervising 7 Ph.D students at NTUA working in the field of CCU, energy conversion systems for Electricity, Heating and Cooling. He has participated in a large number of projects in NTUA (2006-present) and in Technische Universität München (2001-2006), having both technical and coordination responsibilities. He has significant industrial experience in power production plants, co/tri-generation systems, heat pumps, building heating systems and chillers. He is full member of the editorial board of 4 scientific journals dealing with central-decentralised energy systems and renewable energy sources.

#### Prof. Irene Koronaki

Dr. Irene Koronaki is a Professor at the National Technical University of Athens (NTUA), Mechanical Engineering Dept., Thermal Engineering Section and Director of the Laboratory of Applied Thermodynamics. She is teaching undergraduate courses in Thermodynamics, Thermodynamics Software and postgraduate courses in Energy Saving in Buildings, Clean Technologies, Thermodynamics and Heat Transfer. She has experience in the field of Energy Efficiency in the building sector, regarding both building shell and services as well as in solar energy applications in buildings and in the industry sector. She has participated in several research EC programmes during her collaboration with the University of Athens, Department of Physics, as also as a collaborator of CRES (Centre for Renewable Energy Sources and Saving). She has been involved in several European Projects during the last years, Horizon2020, Erasmus+. She is a member of ASME (American Society of Mechanical Engineers) and ASHRAE (American Society of Heating Refrigerating and Air-Conditioning Engineers) as well as a registered engineer (Technical Chamber of Greece).

#### Prof. Eleni Alexandrou

Professor in Architectural Technology, in the School of Architecture of the National Technical University of Athens. Extensive research work on environmental design and energy efficiency of buildings and especially in Historic & Traditional buildings. Teaching in Undergraduate and Post Graduate Programs. Courses: Architectural Technology, Environmental & Climate responsive design, Structural and Energy analysis, Assessment and Restoration of Traditional and Historic buildings, Technology of Materials.

## Assist. Prof. Flora Bougiatioti

She graduated from the Department of Architecture of the Polytechnic School of the Aristotle University of Thessaloniki, Greece (2000). She received a M.Sc. in Architectural Design from the School of Architecture of the National Technical University of Athens (2002) and a Ph.D. from the same university (2007), with thesis subject "The thermal behaviour and the environmental impact of the materials, which are used in the urban open spaces and the shell of buildings in Greece". She teaches as Assistant Professor at the Department of Architectural Technology of the NTUA School of Architecture (2014-), where she has taught as Adjunct staff (2002-2007) and has participated in the NTUA Interdisciplinary Postgraduate Course Architectural Design-Space-Culture (2006-2017). She also taught at the Postgraduate Programme "Environmental Design of Cities and Buildings" of the Hellenic Open University (2009-2010, 2012-14) where she also supervises post-graduate dissertations (2006-2017). She has research work on bioclimatic and environmental architecture, with publications in books, international journals and peer-reviewed conference proceedings. Her architectural work includes awards and participation in architectural competitions, mainly as an environmental consultant.

# Assoc. Prof. Davide Di Battista

He is Associate Professor in the sector of Thermal Machines and Energy Systems at the University of L' Aquila and he has published about 90 scientific papers. He was a member of the Academic Senate, from 2019 to 2022. From April 2022, he is the Energy Manager of the University of L'Aquila.

#### NATIONAL TECHNICAL UNIVERSITY OF ATHENS CAMPUSES





