TS-22-SUPERSESSION INTERLCUSTER SITDA
TSECA1 - FROM NEARLY ZERO ENERGY TO CLIMATE NEUTRAL ARCHITECTURE

Keywords: Environmental-Energy-Climatic Sustainability; Climate Change Mitigation; Carbon & Climate Neutrality; Green & Smart Environment; Zero/Positive Energy & Climate Neutral Architecture.

The current scenario requires a profound revision of the paradigms that have so far configured the energy scenario underlying production and consumption models. It is well known that, of all the processes that must today provide an operational and effective response to the areas of transition, the energy dimension is the one that has the greatest weight in the multi-scalar and evolutionary dynamics of an environmentally strategic sector such as construction.
In particular, applied research can take up the challenge with the commitment to effectively guide and accompany this epochal moment of transition from the Nearly Zero Energy model to that of Net Zero/Positive Energy, and thus to that of Carbon & Climate Neutrality for Architecture and Cities. With regard to this truly necessary transition, the priorities and objectives proposed by the working session recall the themes of the reference cluster: „Energy, Climate and Architecture", which tends to promote the achievement of the best energy, climate and bioclimatic standards with respect to the given context, and more specifically: innovation in support of the energy and environmental transition; increasing the capacity of adaptation and resilience in terms of climate proofing; design and implementation evolution of decarbonisation strategies, actions and solution systems according to the models mentioned.

CHAIRS

Martino Milardi - Mediterranea University of Reggio Calabria, Italy.

Martino Milardi, Architect and PhD, is an Associate Professor at the Department of Architecture and Territory, Mediterranean University of Reggio Calabria. He carries out research and teaching activities in the field of Architectural Technology disciplines. He is the Scientific Director of "TCLab Envelope Testing", an operative section of the Building Future Lab, a Research Laboratory that develops its activities through advanced Testing on envelopes, operating in the field of experimentation and certification of performance standards concerning in particular climatic stresses and extreme events on components and façades.

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Full Professor and Ph.D. in Architectural Technology at University of Ferrara (Unife), Department of Architecture (DA). Coordinator of the Master's degree in Architecture, DA, and of the International Double Master Degree Program (Unife/PUCPR, Brazil, 2013-2019). Director of the "Architettura>Energia" Research Centre, DA. Coordinator of the national Cluster "Energy Climate Architecture", Italian Society of Architectural Technology (SITdA). Member of: SITdA Governing Council (2017-2023); national and international scientific editorial boards (e.g. TECHNE Journal-SITdA); Academic Board of international Ph.D. Programs (e.g. „Environmental Sustainability and Wellbeing"), Unife and others Universities.

Paola Gallo - University of Florence, Italy.

Paola Gallo has been Associate Professor in Architectural Technology at the University of Florence since 2005 in service at the Department of Architecture DIDA, of the Faculty of Architecture of Florence where she carries out teaching and research activities. Since 2018, she has obtained national qualification as Full Professor. Scientific Secretary since 2007 of the Interuniversity Research Centre in Bio-ecological Architecture and Technological Innovation for the Environment is Coordinator of the ABITA Master at the University of Florence.

Maria Teresa Mandaglio - Mediterranea University of Reggio Calabria, Italy.

Mariateresa Mandaglio, architect and PhD at the Department of Architecture and Territory, 'Mediterranean' University of Reggio Calabria. She carries out scientific activities in the field of Architecture Technology disciplines. Her research activities are mainly aimed at the innovation of materials and the building envelope through the analysis of the evolution of the performance of the architectural envelope from passive to active, investigating the technological processes of innovation that have allowed to develop the etymological and performance transition from the concept of closure to that of facade and finally to that of dynamic and intelligent envelope.