



MGF
7th edition

Florence
14 - 16
February
2024

FORUM PROGRAMME

GETTING TO ZERO

Beyond energy transition towards carbon-neutral Mediterranean cities

Time	Wednesday 14 February	Thursday 15 February	Friday 16 February
8:30	Registration	Registration	Registration
9:00	Institutional Greetings A. Sayigh: Chair of the Forum & Chair of the Scientific Committee M. Sala: Honorary Co-chair of Scientific Committee G. De Luca: Director of the Department of Architecture DIDA (UNIFI) M. Losasso: President of SITdA (Società Italiana della Tecnologia dell'Architettura)	Plenary 2. ARCHITECTURES FOR TOMORROW Chair: M. Aboulnaga - Co-chair: G. Calcagno S. Wannous, L. Wannous, R. Badr Architectural treatments for the integration of solar energy systems on the roofs of residential buildings as an alternative solution to the energy crisis in Syria C. Nava Architectures as carbon sink, as carbon pool, as carbon stake: how technological options challenge the loss of uptake of the Mediterranean sea A. Violano, M. Cannaviello Nature positive built environment: systemic approaches and technological design experimentation S. Ferchichi Mediterranean synergies for the energy renovation of university buildings: three pilot projects in Palestine, Tunisia, and Italy A. Rogora, P. Leardini Energy retrofit of non-monumental historic buildings: Problems, limitations and opportunities of technological advances G. Grunwald and all Building BIM Competence across Europe: the DIGITAL DECATHLON project	Plenary 4. PEOPLE AND COMMUNITIES Chair: A. Sayigh - Co-chair: S. Wannous R. Hinrichs-Rahlwes The European Green Deal - building a sustainable energy system across end-uses: net zero or zero emissions G. M. Mangano Which Living Lab processes for the Renewable Energy Communities? A pilot experimentation in NRRP-T4Y Research D. Giorgi, C. Morea A design-led participatory process to address Climate City Contract for NetZero cities A. Trombadore, C. Balocco When architectural design unveils the ethical and aesthetical value of BIPV: the Santa Verdiana demo case G. Calcagno, G. Pierucci, L. Montoni, M. Bertelli Capitalizing the Med-EcoSuRe experience
9:30	Plenary Getting to Zero Chair: M. Sala - Co-chair: A. Trombadore R. Badr The machine man and his shelter in a time of artificial and digital transformation I. Bennani Climate change and energy transition. The Moroccan experience S. Mecca Proximity. The well-being in the city of future G. Verdini Climate-resilient Urban Futures in the Mediterranean Region: Notes M.L. Germanà Circular building production in the South Mediterranean area: the experience of CUBÂTI Project D. Oktay Neighbourhood nexus: towards positive energy environments in urban settings		
11:00	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>

11:30	Plenary 1. LANDSCAPE AND CITIES IN TRANSITION Chair: R. Crutescu - Co-chair: G. Verdini M. Sala Urban forestation and green architecture for a sustainable built environment M. Abounaga, M. Elsharkawy Climate Neutrality and Global Perspective for Net-zero Policies and Buildings D. Francese, B. Buoninconti, E.M. Oliva Ecological and bioregional transition R. Bologna Global challenges and environmental design for a new balance between nature and city B. Beckers A physics-based urban digital twin for designing and renovating sustainable cities E. Lucchi, M. Clementi, V. Dessì Mapping urban local metabolism to support Building Integrated Agriculture		Plenary 3. ECO-TECHNOLOGIES AND MATERIALS Chair: A. Rogora - Co-chair: G. M. Mangano A. Sayigh European Drive to use Photovoltaic Application in New Buildings M. Abounaga, A. Abouaiana, A. Eid, R. Elkeshki, S. Abouhneima, A. Elmarakby An Integrated Approach towards Smart Building Strategies to Mitigate Climate Change and Attain SDG to Reach Net-Zero A. Zabanitou, G. Vaskalis, A. Chasioti Alternative Liquid Fuels from Plastic Waste toward Climate Change Mitigation and Circular Economy F. Giglio, F. Armocida A zero waste strategy toward carbon neutrality. Circular technology experimentations for life extension of non-recyclable plastic packaging D. Lucanto, F. Filice Eco-Design for Transition Architecture: Comparative Analysis for an Ascalar Methodology Utilizing Green Actions Defined by the PNACC and Pre-Design According to Life Cycle Thinking		Special SESSION DIGITAL DECATHLON Erasmus + project Presentation of students design projects in the context of the DD competition	Plenary 1. LANDSCAPE AND CITIES IN TRANSITION Chair: A. Sayigh - Co-chair: M. Szabó R. Crutescu Sustainable Architecture Challenges for a Sustainable Future R. Pulselli, G. Paolinelli, S. Bastianoni Living labs to design the transition towards carbon neutrality in Mediterranean Islands A. Basti, E. Di Giuseppe The technological design of renewable energy communities: architectural implication of an holistic approach O. Smith A Novel Collaborative Stakeholder Development Tool Using Energy System Optimisation and Visual Interface for Workshop Facilitation P. Picchi The landscape at the centre of the Agrivoltaic systems project I. Khele, M. Szabó Comparative Analysis of the energetic performance of Buildings Integrated Semi-Transparent PV glazing systems in the climate of Hungary and Syria.
12:15			S. VERDIANA PILOT OPENING			
13:00	Poster Session		Poster Session		Poster Session	
13:15	<i>Light Lunch</i>		<i>Light Lunch</i>		<i>Light Lunch</i>	
14:00	Session 1.1 LANDSCAPE AND CITIES IN TRANSITION Chair: R. Pulselli Co-chair: V. Dessì G.M. Mangano, D.L. Laganà, A.H. Hanida Adaptive technologies in flooding scenarios through NBS/SUDS S. Forastiere, C. Piselli, C. Balocco, A. Silei, F. Scieurpi Energy transition and environmental sustainability in large commercial systems. A research project example E. Zatta, M. Condotta Tailored solutions for the sustainable transition of the built environment: the specific context as information source	Session 2.1 ARCHITECTURES FOR TOMORROW Chair: C. Nava Co-chair: M. V. Arnetoli A. Rogora, M. Roca Musach Comfort at work: Analysis, evaluation and design proposal for an industrial building in northern Italy S. Dergham, A. Akram, M. Bassam, M. Abounaga Adaptive Approaches to Attain Net Zero through Carbon Sequestration in Heritage Sites of Coastal Mediterranean Cities A. Picariello, P. De Joanna, D. Francese Bioclimatic Urban Renewal for an Historical Disused Military Area in Naples	Session 3.1 ECO-TECHNOLOGIES AND MATERIALS Chair: A. Zabanitou Co-chair: G. Pierucci A. Abouaiana, A. Khamis Agile Approach to Decarbonize Urban Communities Facility Management Industry Towards Carbon-neutral Mediterranean Cities C. Marchiaro, G. Cadoni, C. Silvestri Inventorying local resources to move towards new projectual models for sustainable architecture: materials, energy and know-how as catalyst for change C. Scanagatta, M. Bortolotti, M. Condotta Bio-based materials to foster efficient retrofitting of the existing building stock.	Session 4.1 PEOPLE AND COMMUNITIES Chair: D. Francese Co-chair: C. Sarrini M. V. Arnetoli, E. Giannini, M. Vacca MED_MESS Diversity, creative entropy and Mediterranean informality practices A. P. Pomè, G. Ciaramella ESG Measurement Tool: An approach to measure the sustainability introduced in real estate requalification projects F.E. Kaya, A. Monsù Scolaro Empowering Circular Economy Transition in the Building Sector: A Stakeholder-Centric Approach in the Design Phase for Climate Change Mitigation	CLOSING SESSION ROUNDTABLE Chair: A. Trombadore Co-chair: G. Mangano M. Sala - A. Sayigh - R. Badr - A. Rogora - C. Nava - M.L. Germanà - D. Francese - M. Abounaga - I. Bennani Student Awards / Best Paper Ceremony	

	<p>M. Zagaria, F. Mancini Energy and Environmental refurbishment of the residential complex of Torvecchia in Rome: Retrofitting and Demand Response Activities</p> <p>E. Paudice New forms of interaction between infrastructure and the city: the experience of the intensive forest in the Garbatella park</p> <p>D. Lucanto An Advanced Framework for Regenerative Design in Digital and Physical Prototyping. Crafting a Comprehensive Atlas for Predictive Modeling and Adaptive Technologies in Climate Change Scenario Analysis</p>	<p>L. Dipasquale, M. Perdonò, F. Battisti Adopting Circular economy strategies in building regeneration through a holistic approach</p> <p>N. Karar, S. Haggagy, A Hadhoud, M. Rabea, S. Dergham Sustainable Retrofitting Strategies for Existing Communities to Attain Resilience, Livability, and Climate Mitigation and Adaptation: The Case Study of Urban District One Residential Compound in New</p> <p>G. Pierucci, G. Calcagno, A. Trombadore, L. Montoni, M. Bertelli 'Getting to zero' the university buildings stock. Boosting the renovation strategy and the action plan of the University of Florence</p>	<p>M. Saeli, A. Calà Reusing olive pomace waste for energy saving applications in construction: development of a panel prototype</p> <p>E. Catalano, C. Nava Green Responsive System (GRS): A Paradigm Shift in Urban Decarbonization in the Mediterranean Context</p> <p>F. Tucci, S. Baiani, P. Altamura, V. Tulelli, G. Rossini Low carbon bio-based building materials from organic waste: a closed-loop production model within circular neighborhoods</p>	<p>F. Romagnoli, T. Ferrante, T. Villani Adaptability of housing for aging in place. Sustainable approaches to enhance environmental comfort</p> <p>L. Sacchetti Proposal of a Framework to Evaluate the Building Performance of Local Healthcare Facilities</p>
16:00	Coffee Break		Coffee Break	
16:30	<p>Session 1.2 LANDSCAPE AND CITIES IN TRANSITION Chair: F. Giglio Co-chair: C. Moretti</p> <p>V. Frighi, E. Piaia Innovative approaches for heritage buildings renovation in the Mediterranean area</p> <p>S. Magaudda Designing Nature Based Solutions for Carbon Footprint offsetting of school communities</p> <p>E. Giacomello, V. Tatano, R. Ravellini SuDS-Sustainable Drainage Systems in city center. Open problems and technological solutions</p> <p>L. Montoni, C. Moretti Smart Biophilic cities: green and innovative digital solutions for sustainable urban development</p> <p>L. Moujoud, O. Messous, A. El Fallous Exploring the intersection of History and Morphology: A comparative study of the spatial formation in the early development of the Medina of Fez</p>	<p>Session 2.2 ARCHITECTURES FOR TOMORROW Chair: E. Lucchi Co-chair: M. Bertelli</p> <p>L. Lombardo, S. Colajanni, T. Campisi Madonie Green Walls Revolution: sustainable revitalization and enhancement of Sicilian inner rural areas</p> <p>C. Clemente, A. Mangiatordi, M. Zagaria "CIS Roma Scuole Verdi": a program to improving Energy Efficiency and Technological Retrofitting of school buildings in Rome</p> <p>G. Paganin, C. Talamo, C. Chitanu Assessing climate change adaptation of buildings: a review of performance indicators in Green Building Rating Systems</p> <p>F. Tucci, V. Cecafofso, M. Giampaolletti, G. Turchetti, K. Mitrik, L. Montagner Green architecture, NZEB and Climate Neutrality. An intervention design model for deep renovation of Public Housing</p> <p>R. Bologna, G. Hasanaj, C. Moretti Shifting to a new sustainable paradigm: nature-based solutions and circular design for the urban regeneration</p>	<p>Session 1.3 LANDSCAPE AND CITIES IN TRANSITION Chair: P. Picchi Co-chair: L. Montoni</p> <p>M. K. Bin Mohd Zambri, E. A. Martinez Cesena Analysing the Resilience of Microgrids as they Transition from Standalone to Grid-connected systems</p> <p>L. Gelichi SEAWEED HOUSE 2.0</p> <p>F. Gugliotta, A. Battistella Wind Farms and Diachronic Landscapes: The Identity of Sustainability</p>	<p>Session 2.3 ARCHITECTURES FOR TOMORROW Chair: A. Violano Co-chair: S. Dergham</p> <p>H. Barton Using co-design to extract best-practice innovations from cities around the world to accelerate city-level domestic retrofit schemes</p> <p>M. Clementi, M. Migliore Open source tools to support local circular co-design</p> <p>A. Cristino The Digitalization of Participatory Approaches</p> <p>G. Cadoni, M. Belmaaziz Multiscale energy modelling approach of the residential building stock based on data-driven GIS tool</p> <p>A. Canducci, A. Calvano, A. Battisti Technological and environmental strategies for the redevelopment of outdoor learning spaces and the establishment of Energy Hubs in school buildings</p>
18:00	Digital Decathlon Award Ceremony			
18:30				
19:30	FORUM PIZZA Tiratissima Firenze, Viale G. Amendola, 14 r			