

# MED GREEN FORUM

6th edition

20 – 22 JULY 2022  
FLORENCE

MEDITERRANEAN  
ARCHITECTURE & GREEN  
DIGITAL TRANSITION



CONFERENCE  
PROGRAM

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Edited by



Selected Papers  
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## Welcome to the 6th edition of the Mediterranean Green Forum - Florence 2022

Med Green Forum takes place in Florence (Italy) from 20 to 22 July 2022 and is hosted by the DIDA Department of Architecture - University of Florence in its great spaces in the UNESCO city-centre.

Since the first edition in 2010, the World Renewable Energy Congress and Network Forum have organized the bi-annual Med Green Forum to highlight the role of Renewable Energy applications in the sustainable building sector as foundation of a truly positive energy future, with a focus on the Mediterranean region, where an effective RE implementation should act as a beacon of light to the rest of the world to follow. Coming to the sixth edition, MGF is an open roundtable for an international community of researchers, experts and enthusiasts to discuss the most innovative and promising sustainable building technologies.

In the unique socio-climatic and cultural context of the

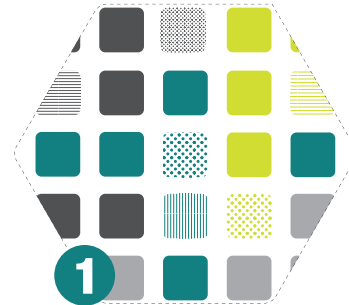
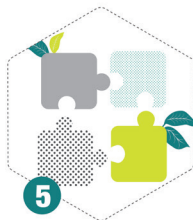
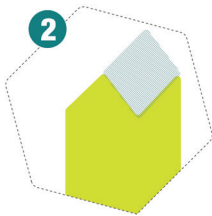
Mediterranean basin, the recognized challenge is to regenerate cities by renovating the existing built environment, in order to reduce its huge environmental impact and meet the global goals of clean energy in sustainable cities and communities, but also responsible production and health and well-being for all.

In the era of climate change and in the years of the pandemic experience and pervading digitalization, MGF6 will open a debate on how the need to re-think healthier living spaces is stimulating the building sector to innovate across the ongoing Green and Digital transitions.

The mission of MGF6 is to explore the virtuous intersections between twin transitions in actual policies, programs, projects and experimentations, with the Digital domain innovating the Green building sector towards more reliable and inclusive planning and design practices, where to collectively envision future buildings and cities.



# MGForum Sessions



## CITIES

### healthy, augmented and resilient cities

Chairs:

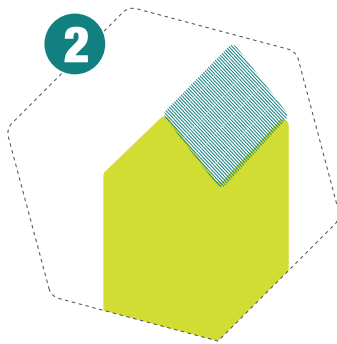
Mohsen Aboulnaga (Cairo University)

Alessandra Battisti (Sapienza University of Rome)

Future cities will be sustainably Green and Digitally twinned.

Looking at Mediterranean historical and valuable cities, the challenge to regenerate urban spaces and “cities as systems” should merge the global imperative of contrasting climate change, with the renewed need of environmental quality and health in cities and buildings, roused by the pandemic experience.

Crossing the twin transition at the urban scale, sustainability and resilience should be addressed by the most effective Green principles in the planning of urban infrastructures, public spaces and services, exploiting technologies for the Mediterranean socio-climatic context for sustainable and healthy cities, from passive to renewable energies, passing through nature-based solutions. In parallel, smart cities concepts have to consider the newest amount, variety and quality of Digital data, today available to tackle complexity in more reliable processes and more inclusive ways of working together.



## BUILDINGS

### sustainable, retrofitted and renovated buildings

Chairs:

Alfonso Senatore (OnGreening)

Maria Luisa Germanà (University of Palermo)

Future buildings will be Green by exploiting the Digital. In Mediterranean cities, the urban regeneration challenge requires to renovate the consolidated park of existing buildings (from public buildings to private residencies), extremely energivorous and spreadly characterised by poor environmental quality, so highly impacting on the planet and humans (in terms of comfort and well-being). A successful acceleration of the renovation wave can highly benefit from the ongoing transitions. Exploiting the natural resources of sun, air, water and soil/vegetation in millennial building traditions, existing buildings can reach positive energy targets by integrating the most traditional/innovative technologies for the Mediterranean climatic and socio-cultural context, from natural and passive to active renewable energy systems.

Their strategic and effective adoption in the renovation wave can be sustained by the most advanced digital technologies, both in the design phase (e.g. existing building data collection, simulations, mix of technologies, scenario building), and along the future green building life-cycle, to support more efficient use, management and operation, also involving users of future sustainable, healthy, and beautiful, Green buildings.



## TECHNOLOGIES

### circular and ecological materials, nature-based solutions for the built habitat

Chairs:

Derya Oktay (Meltepe University)

Alessandro Rogora (Politecnico di Milano)

Green and Digital technologies for future buildings and cities.

To renovate the Mediterranean built environment, the design of more sustainable buildings and living spaces requires a wise integration of traditional/innovative technologies and materials, appropriate for the unique climatic, cultural and socio-economic context of the Med basin.

Challenging standardized and mass produced building systems, technological Green innovations are joining climate-neutrality goals with sustainable socio-economic models (e.g. circular economy) towards cleaner and more sustainable building processes, supported by the most promising Digital possibilities of Industry 4.0.



## HUMANS

environmental comfort and well-being,  
energy efficiency and users' conscious  
behavior

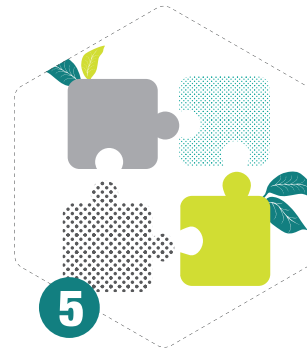
Chairs:

Carla Balocco (University of Firenze)

Despina Serghides (The Cyprus Institute)

Humans (should be) aware of sustainability in future buildings and cities.

Green futures can be sustained only by a shared awareness on how cities and buildings work and what is their real impact on the environment, such as on the economy and on the society as a whole. A global run towards sustainability requires people, from experts to ordinary citizens, with an improved knowledge to understand and manage living spaces, as basis for more conscious and pro-active behaviors sustaining energy efficiency and environmental quality. Such a virtuous process can be addressed by an even more strategic exploitation of the newest Digital technologies for the building sector, from sensors to IoT systems.



## PROCESSES

digital tools, policies and education for  
inclusive co-planning and co-design

Chairs:

Manuel Correia Guades (University of Lisbon)

Elena Gigliarelli (CNR-Roma)

Together to co-envision future sustainable buildings and cities.

Reaching ambitious sustainability goals in our buildings and cities requires to strategically update planning and design processes in order to take the full advantages from the Green and Digital transitions. New policies and education paths are required to sustain more inclusive processes, able to take into account interdisciplinarity to address complexity for the definition of predictive life-cycle scenarios, simulated by the new availability of data, as basis for a data-driven and evidence based decision making.

# Wednesday 20 July 2022

09:00

## Institutional Greetings

Ali Sayigh - Chair of the Forum & Scientific Committee  
Marco Sala - Honorary Co-Chair  
Saverio Mecca - Conference Chair  
Giuseppe De Luca - DIDA Director  
Arianna Fuga - EDP Representative  
Mario Losasso - SITdA President  
Imane Bennani - Director of the École d'Architecture de Rabat

09:50

## PLENARY

### Med Architecture in the Green-Digital Transition

*Chair: Marco Sala*

Global Catastrophe – Climate Change is happening,  
Renewable Energy will reduce its effect  
*A. Sayigh*

Towards the circular home: on utilities, waste, resources  
and microbes  
*R. Armstrong*

Energy and Sustainability in the Mediterranean Architecture  
*D. Serghides*

Digital transition for energy efficiency in cultural heritage:  
the new national guidelines  
*A. Moreno*

11:10

COFFE BREAK

11:40

## PLENARY

### Med Cities in the Green-Digital Transition

*Chair: Antonella Trombadore*

Sustainable Regeneration in Central Urban Areas  
*D. Oktay*

The role of mobility in urban resilience and climate change  
*A. Ajanovic*

Urban Resilience and Climate Change: Threats and Risks  
linked to Human Behaviors in the Age of COVID-19  
*M. Aboulnaga, M. Barakat*

Green architecture design experience  
*M. Sala*

13:00

LIGHT LUNCH

14:00

## PLENARY

### Renewable Energy for Future Med Cities

*Chair: Hussein Kazem*

Rethinking the European Green Deal – Accelerating the  
transformation towards energy independence based on  
100 % Renewable Energy  
*R. Hinrichs-Rahlwes*

Critical considerations about Renewables  
*D. Swift-Hook*

Minimum Cost Operational Programming of a University  
Campus Cogeneration Station  
*Kl. Kaldellis, E. Kostopoulos, J. K. Kaldellis*

Artificial Cellulase Type Catalysts for Depolymerization  
of Cellulosic Biomass  
*A. Amarasekara*

Feasibility of integrating small scale anaerobic digestion  
in urban areas: Analyzing energy efficiency  
*A. Morán, M. Ellacuriaga, D Carrillo-Peña, X. Gómez*

15:40

COFFE BREAK

16:00

## PLENARY

### Renewable Energy and Eco Technologies for the Built Habitat

*Chair: Rainer Hinrichs-Rahlwes*

Marine Energy Sources for decarbonization of  
Mediterranean regions through Maritime Spatial  
Planning  
*R. M. Pulselli, S. Mecca, S. Bastianoni*

Conditions for Largely Renewable Energy Systems  
*R. Haas*

Influence of optical characteristics of façades on  
pedestrian thermal comfort within the streets of  
Manhattan  
*J. Acuña Paz y Miño, I. de Bort, B. Beckers*

Evaluation of electrical performance for 1.4 kW  
Photovoltaic system in Oman: a technical and  
economic study  
*H. A. Kazem*

Optimal Hybrid Power System using Wind-PV and  
Hydrogen for Isolated location in Duqm, Oman  
*A. H. Al-Badi*

Impact of Process Steps on the Performance of  
Heterostructure Solar Cells  
*S. Karabanov, M. Reginevich*

Prospects for Wind Energy in Southern Morocco and  
Northern Mauritania  
*H. Nfaoui, A. Abbou, A. Sayigh, A. Elmalki*

# Thursday 21 July 2022

## Energy for Med Heritage

Analysis and design for energy and environmental improvement of heritage buildings in the Med Area

This session is dedicated to share the results of BEEP and Med-EcoSure Projects, financed by ENI CBC Med, the largest European Cross-Border Cooperation (CBC) initiative that promotes economic and social development addressing environmental sustainability. Priority B.4.3 supports cost-effective and innovative energy rehabilitations relevant to building types and climatic zones, with a focus on public buildings that can act as beacons of innovation. BEEP project focuses on advanced BIM based workflows, technologies and financing mechanism to foster interventions on built heritage, while Med-EcoSuRe offers an innovative approach to the definition and diffusion of cost-effective energy renovation within university buildings; both projects share the perspective of scaling their results to the whole public buildings sector in the long term.

### 09:00 Institutional Greetings

Ali Sayigh - Chair of the Forum & Scientific Committee

Saverio Mecca - Conference Chair

Costanza Milani - Director of ISPC CNR

### 09:20 PLENARY

Energy for Med Heritage | Keynotes and ENI CBC MED projects

Chair: Saverio Mecca

Strategies for energy efficiency retrofits of historic residential building stocks

P. Eriksson

A possible integration between Cultural Heritage and photovoltaic through the experience of the "BIPV meets history" Project

E. Lucchi

Mediterranean University as Catalyst for Eco-Sustainable Renovation

S. Ferchichi, I. Khalifa

Living Lab and Digital Twin: the approach of beXLab - building environmental eXperience

A. Trombadore, G. Calcagno, G. Pierucci

Beep Project. A methodology for built heritage energy and environmental improvement

E. Gigliarelli

An integrated approach for energy retrofit of built heritage through Building Information Modelling (BIM)

F. Calcerano, L. Martinelli

11:00 COFFEE BREAK

### 11:20 PLENARY

Energy for Med Heritage | BEEP project

Chair: Alessandro Rogora

Open BIM and HBIM modeling for energy efficiency

R. Minnucci

Energy retrofitting of MED public buildings: experiences of the regional government of Valencia

N. Matarredona Desantes

Policies and financing mechanisms for energy retrofit interventions

S. Mortada

Active and Passive energy efficiency systems compatible with traditional buildings in Palestine

I. Juha, E. A. Zalaf

Strategies to facilitate the use of renewable energies and energy efficiency measures for public historical buildings among public policy maker

M. Tawalbeh

Solar heating vs Photovoltaics: Building use based approach – Case studies of Alexandria

D. Taha, Z. El Sayad

An H-BIM-driven numerical simulation methodology for the development of energy retrofit design concepts

S. Thravalou, K. Alexandrou, G. Artopoulos

13:10 LIGHT LUNCH

### 14:00 PARALLEL SESSIONS 1

TECHNOLOGIES: Innovative Energy Efficiency systems and PV integration

Chair: Giacomo Pierucci

Strategies for Frugal Smart Oasis: Figuiq as prospect

A. Sharif

Photovoltaic Thermoelectric Panel (PTE): feasibility study for the Architecture and Design Industr

F. Incelli, M. Rossetti

The Prototypological design of the Green Responsive System. Method and Tools to improve circularity and physical performances of the liminal space in the Mediterranean urban areas

D. Lucanto, C. Nava

# Thursday 21 July 2022

Audits, Diagnosis and Energy Efficiency Systems for Intelligent Energy Management in Buildings and Industrial Plants

N. Monteferrante, G. Losco

Integration of solar technologies in historical buildings: construction of an evolutionary framework of good practices

P. Altamura, S. Baiani, E. Lucchi

Seismic Evaluation of a Curtain Wall System for improving the adaptive performance of connecting nonstructural components

M. Rossetti, M. Milardi, S. Sansotta

## 14:00 **PARALLEL SESSIONS 2**

**HUMANS:** Environmental comfort and well-being - Users' Conscious Behaviour for Energy Efficiency

*Chair: Alessandra Battisti*

Green and healthy solutions in post-pandemic housing

F. Amadei, G. Romano, M. Giampaolletti

Functional hospitals for humans

E. Bellini, N. Setola, G. Caserta

Energy citizenship and community: drivers for climate neutrality of cities and districts

M. Massari, D. Longo, S. Boulanger, G. Turci, B. Turilazzi

Building a healthier living environment for people and the planet. A case study review

L. Calcagni, A. Calenzo

Co-design inclusive relations between Humans and environments adopting a citizen science approach

V. Gianfrate, M. Ascari, R. Giordano, V. Orioli, G. Ginocchi

Green Cities and Salutogenic Design

R. M. Vitrano

## 15:30 **COFFEE BREAK**

## 16:00 **PARALLEL SESSIONS 1**

**PROCESSES:** Digital tools, policies and education for inclusive co-planning and co-design

*Chair: Amela Ajanovic*

Living lab for technological retrofit design on perceived quality

A. Violano, M. Cannaviell, N. Barbato, G. Dangelo

Generative Environmental Design tools to support circular economy at the local scale

M. Clementi, L. Belladelli

Creation of a methodology and a digital technological platform aimed to energy efficiency in the historical heritage and diffused building

A. Pierleoni, G. Losco

Learning from collaborative processes to design the urban green transition

R. Roversi, F. Sabatini, S. Orlandi, A. Boeri

Environmental data-drive design for the management of climate-adaptive environmental design processes of the built environment

E. Bassolino

Climate design and user-profile digital platform for the regenerative monitoring of cultural heritage in Mediterranean historic centres

A. Leuzzo

## 16:00 **PARALLEL SESSIONS 2**

**CITIES:** Enabling technologies and Innovative urban regeneration processes

*Chair: Antonella Trombadore*

Digitization of built heritage, DCH and cultural sustainability

P. Puma

Satellite imagery and AI techniques in geospatial analysis to enhance environmental sustainability

Application on urban green space in the city of Rabat Morocco

M. Chahbi

The importance of community capacities for urban resilience to climate change in communities located in informal settlements: the case of La Primavera

D. E. Valencia, P. A. Valencia

Advanced Regenerative Design in Mediterranean areas: enabling technologies and experimental assessment toward urban climate neutrality

G. Mangano, A. Leuzzo

The importance of community capacities for urban resilience to climate change in communities located in informal settlements: the case of La Primavera

A. P. Pomè, A. Ciaramella, L. Sdino

Transitional spaces as a domain for public-private engagement in urban regeneration

M. Berta, L. Caneparo, A. Di Renzo

An urban infrastructure as quality city connector in a multistakeholder approach

L. Mastrolonardo

# Friday 22 July 2022

## 09:30 PLENARY

Sustainable, Retrofitted and Renovated Med Buildings

*Chair: Dora Francese*

Agile-Transdisciplinary Conceptual Framework for Retrofitting Mediterranean Built Environments  
*A. Abouaiana, A. Battisti*

Enabling technologies for adaptive buildings  
*C. Nava*

The Living Buildings Challenge  
*R. Crutescu*

Energy, resource circularity and retrofitting in Positive Energy Districts  
*V. Tulelli, F. Nava, M. Pani*

Empowering the retrofit of Med public buildings: the beXLab experience  
*G. Calcagno, G. Pierucci, L. Montoni*

Deep renovation methodology for a 20th-century masterpiece. The case of Palazzo Affari by Carlo Mollino  
*L. Caneparo, A. Di Renzo*

Towards the "Museum of the Future": from Heritage Building Information Modelling (HIBM) to Virtual Reality (VR) for the valorisation of the built heritage of the city of Rabat  
*Y. El Ganadi*

## 11:10 COFFEE BREAK

## 11:40 PLENARY

Green Technologies and Nature-Based Solutions for the built habitat

*Chair: Despina Serghides*

Urban green infrastructure for neutral communities. Processes and technologies to assess the effects on the ecological footprint of the territory. The case of Rescaldina  
*A. Rogora, M. Romano*

Use of vegetable materials for temporary structures and infrastructures  
*A. Rocco, D. Francese*

Active and passive energy efficiency systems compatible with traditional buildings in Palestine  
*Y. Shamroukh, E. AboAlZolf, A. Hilal*

Integration of Circular and green technologies for the adaptive reuse of public space  
*F. Giglio, E. Grillo, S. Sansotta*

Behind the design of a sensible green building: the new Sistema Ambiente Headquarter  
*J. C. Olano Salinas*

## 13:00 LIGHT LUNCH

## 14:00 PARALLEL SESSIONS 1

**CITIES:** Enabling technologies and Innovative Urban regeneration processes

*Chair: Riccardo Maria Pulselli*

Proposal of a multiscale assessment framework to guide renovation actions towards a more resilient built environment  
*L. Sacchetti, V. Frighi, F. Conato*

Urban regeneration processes of public housing in the Mediterranean area: a multiscale and multi-system approach  
*A. Calvano, A. Canducci, A. Battisti*

Process Management of Spatial Structures to Address Positive Buildings with the Goals of Sustainable Development  
*Z. Javanmard, S. Cascone*

Parametric design and bioclimatic solutions for historical Architectures: case study in Orta di Atella  
*D. Francese, L. Buoninconti*

Experimental tests for the adaptation of a curtain wall subjected to extreme events in the Mediterranean area  
*E. Grillo, M. Milardi, F. Olivieri*

Energy Communities and Smart Villages in the Madonie Sicilian inner rural area  
*L. Lombardo*

## 14:00 PARALLEL SESSIONS 2

**TECHNOLOGIES:** Green Technologies and Nature-Based Solutions for the built habitat

*Chair: Ruxandra Crutescu*

The Influence of Individual Comfort in Shaping the Tourism Image of Balige  
*N. Ginting*

Low cost procedure to evaluate the thermal resistance of building materials  
*A. Rogora, P. Leardini*

Assessing environmental performance and climate change mitigation effects of natural materials for building retrofitting  
*L. Dipasquale, P. M. Pulselli*

Integrated Computational Materials Engineering of Timber  
*L. Caneparo, A. Di Renzo*

# Friday 22 July 2022

- 15:30 : COFFEE BREAK
- 15:45 : **CLOSING CERIMONY**  
MGF Thesis Award Poster Exhibition  
and Winners Proclamation
- 16.30 : MGF Best Paper Award  
Sponsored by Italian Innovation Design & Chai Agro  
Investments Pty Ltd
- 20:00 : BBQ EVENT

MGF 2022 venue: Santa Teresa building complex - DIDA Department  
of Architecture in the historical centre of Florence



# MGF People Index

## 20 July 2022

**Ali Sayigh** - Chairman of WREC & Director General WREN  
**Marco Sala** - University of Florence  
**Saverio Mecca** - University of Florence  
**Giuseppe De Luca** - DIDA Director | University of Florence  
**Arianna Fuga** - EDP Sciences Representative  
**Mario Losasso** - SITdA President  
**Imane Bennani** - Director de l'École d'Architecture de Rabat (Marocco)  
**Rachel Armstrong** - KU Leuven (Belgium)  
**Despina Serghides** - The Sustainable Built Environment Energy, Environment & Water Research Centre (Cyprus)  
**Anna Moreno** - IBIMI (buildingSMART Italy)  
**Derya Oktay** - Maltepe University (Turkey)  
**Amela Ajanovic** - Technical University of Vienna (Austria)  
**Moses Aboulnaga** - Cairo University (Egypt)  
**Mai Barakat** - Cairo University (Egypt)  
**Rainer Hinrichs-Rahlwes** - European Renewable Energies Federation (Germany)  
**Donald Swift Hook** - Donald Swift Hook Associated (UK)  
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**Emmanouil Kostopoulos** - University of West Attica (Greece)  
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**Xiomar Gómez** - University of León (Spain)  
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**Inès de Bort** - Université de Pau et des Pays de l'Adour (France)  
**Benoit Beckers** - Université de Pau et des Pays de l'Adour (France)  
**Kazem Hussein** - Sohar University (Oman)  
**Abdullah H. Al-Badi** - Sultan Qaboos University (Oman)  
**Sergey M. Karabanov** - Ryazan State Radio Engineering University (Russia)  
**Mikhail Reginevich** - Ryazan State Radio Engineering University (Russia)  
**Hassan Nfaoui** - Mohammed V University of Rabat (Marocco)  
**Ahmed Abbou** - Mohammed V University of Rabat  
**Amina Elmalki** - Juridical expert at the courts of Rabat (Marocco)

## 21 July 2022

**Costanza Milani** - Director of ISPC (Istituto di Scienze del Patrimonio Culturale) CNR  
**Petra Eriksson** - Uppsala University (Sweden)  
**Elena Lucchi** - Eurac  
**Souha Ferchichi** - MEDREC - Mediterranean Renewable Energy Centre (Tunisia)  
**Ines Khalifa** - MEDREC - Mediterranean Renewable Energy Centre (Tunisia)  
**Antonella Trombadore** - University of Florence  
**Gisella Calcagno** - University of Florence  
**Giacomo Pierucci** - University of Florence  
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**Filippo Calcerano** - ISPC (Istituto di Scienze del Patrimonio Culturale) CNR  
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**Eyad Abo Zalaf** - Center for Cultural Heritage Preservation (Palestine)  
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**Sara Sansotta** - Mediterranean University of Reggio Calabria  
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**Francesca Sabatini** - University of Bologna  
**Serena Orlandi** - University of Bologna  
**Andrea Boeri** - University of Bologna  
**Edoardo Bassolino** - University of Naples Federico II

**Alessia Leuzzo** - Mediterranean University of Studies of Reggio Calabria  
**Fabrizio Amedei** - Sapienza University of Rome  
**Giada Romano** - Sapienza University of Rome  
**Marco Giampaoletti** - Sapienza University of Rome  
**Elena Bellini** - University of Florence  
**Nicoletta Setola** - University of Florence  
**Giuseppe Caserta** - University of Florence  
**Martina Massari** - University of Bologna  
**Danila Longo** - University of Bologna  
**Saveria Boulanger** - University of Bologna  
**Giulia Turci** - University of Bologna  
**Beatrice Turilazzi** - University of Bologna  
**Livia Calcagni** - Sapienza University of Rome  
**Alberto Calenzo** - Sapienza University of Rome  
**Valentina Gianfrate** - University of Bologna  
**Margherita Ascari** - University of Bologna  
**Roberto Giordano** - University of Bologna  
**Valentina Orioli** - University of Bologna  
**Giovanni Ginocchini** - University of Bologna  
**Rosa Maria Vitrano** - University of Palermo  
**Paola Puma** - University of Florence  
**Mariame Chahbi** - International University of Rabat (Marocco)  
**Diana Elizabeth Valencia** - Universidad de San Buenaventura (Colombia)  
**P.A. Valencia** - Universidad de San Buenaventura (Colombia)  
**Giuseppe Mangano** - Mediterranean University of Studies of Reggio Calabria  
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**Mauro Berta** - Politecnico di Torino  
**Luca Caneparo** - Politecnico di Torino  
**Alessandro Di Renzo** - Politecnico di Torino  
**Luciana Mastrodonardo** - University G.d'Annunzio Chieti-Pescara

## 22 July 2022

**Ahmed Abouaiana** - Sapienza University of Rome  
**Alessandra Battisti** - Sapienza University of Rome  
**Consuelo Nava** - Mediterranean University of Studies of Reggio Calabria  
**Ruxandra Crutescu** - Spiru Haret University (Romania)  
**Violetta Tulelli** - Sapienza University of Rome  
**Federica Nava** - Sapienza University of Rome  
**Maria Michela Pani** - Sapienza University of Rome  
**Lucia Montoni** - University of Florence  
**Youssef El Ganadi** - International University of Rabat (Marocco)  
**Alessandro Rogora** - Politecnico di Milano  
**Manuela Romano** - Politecnico di Milano  
**Dora Francese** - University of Naples Federico II  
**Angelica Rocco** - University of Naples Federico II  
**Yazan Shamroukh** - Centre for Cultural Heritage Preservation (Palestine)  
**Eyad AboAlZolf** - Centre for Cultural Heritage Preservation (Palestine)  
**Anwar Hilal** - Palestine Solar and Sustainable Energy Society (Palestine)  
**Francesca Giglio** - Mediterranean University of Reggio Calabria  
**Evelyn Grillo** - Mediterranean University of Reggio Calabria  
**Juan Camilo Olano Salinas** - University of Florence  
**Laura Sacchetti** - University of Ferrara  
**Valentina Frighi** - University of Ferrara  
**Fabio Conato** - University of Ferrara  
**Angela Calvano** - Sapienza University of Rome  
**Andrea Canducci** - Sapienza University of Rome  
**Zinat Javanmard** - Mediterranean University of Studies of Reggio Calabria  
**Stefano Cascone** - Mediterranean University of Studies of Reggio Calabria  
**Luca Buoninconti** - University of Naples Federico II  
**Francesca Olivieri** - Mediterranean University of Studies of Reggio Calabria  
**Luisa Lombardo** - University of Palermo  
**Nurlisa Ginting** - Universitas Sumatera Utara (Indonesia)  
**Paola Leardini** - University of Queensland (Australia)  
**Letizia Dipasquale** - University of Florence



# Program at a glance

WEDNESDAY 20 JULY 2022	THURSDAY 21 JULY 2022	FRIDAY 22 JULY 2022
09:00   11.10 Institutional Greetings PLENARY	09:00   11.00 PLENARY	09:30   11.10 PLENARY
Med Architecture in the Green-Digital Transition	Energy for Med Heritage   Keynotes and ENI CBC MED projects	Sustainable, Retrofitted and Renovated Med Buildings
11:10   11:40 COFFEE BREAK	11:00   11:20 COFFEE BREAK	11:10   11:40 COFFEE BREAK
11:40   13.00 PLENARY	11:20   13.10 PLENARY	11:40   13.00 PLENARY
Med Cities in the Green-Digital Transition	Energy for Med Heritage   BEEP project	Green Technologies and Nature-Based Solutions for the built habitat
13:00   14:00 LIGHT LUNCH	13:10   14:00 LIGHT LUNCH	13:00   14:00 LIGHT LUNCH
14:00   15:40 PLENARY	14:00   15:30 PARALLEL SESSIONS	14:00   15:30 PARALLEL SESSIONS
Renewable Energy for Future Med Cities	TECHNOLOGIES: Innovative Energy Efficiency systems and PV integration  HUMANS: Environmental comfort and well-being - Users' Conscious Behaviour for EE	CITIES: Enabling technologies and innovative urban regeneration processes  TECHNOLOGIES: Green Technologies and Nature-Based Solutions for the built habitat
15:40   16:00 COFFEE BREAK	15:30   16:00 COFFEE BREAK	15:30   15:45 COFFEE BREAK
16:00   17:45 PLENARY	16:00   17:45 PARALLEL SESSIONS	15:45   17:00 CLOSING CERIMONY
Renewable Energy and Eco Technologies for the Built Habitat	PROCESSES: Digital tools, policies and education for inclusive co-planning and co-design  CITIES: Enabling technologies and innovative urban regeneration processes	MGF Thesis Award Poster Exhibition and Winners Proclamation  Best Paper Award Sponsored by Italian Innovation Design & Chai Agro Investments Pty Ltd
	20:00 CONFERENCE DINNER	20:00 BBQ EVENT



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