

THE 1ST SMART CITIES, TOWNS, RURAL AND MOUNTAIN VILLAGES INTERNATIONAL CONGRESS



Smart strategies to mitigate causes and effects of climate change and reduce the environmental footprint

RESTRUCTURA - 21 November 2024

Lingotto Exhibition Center - Oval Pavilion - Turin

SCIENTIFIC PARTNERS



COMMUNICATION PARTNER



CONGRESS PRESENTATION

La.Pi.S. (Laboratorio Pinerolese per la città e il territorio Smart - www.laboratoriosmart.it)

is an association, based in Pinerolo (TO) – Italy, aimed at studying and spreading the smart city culture in urban and territorial development domain, in Italy and abroad. A focus always pursued with the objective of merging technical-scientific and humanistic knowledge to ensure that science and technology improve living conditions, social relationships, modernise services, increase accessibility and economic development, drive sustainability for all people.

To celebrate its 10th anniversary, La.Pi.S. organises **The 1st Smart cities, towns, rural and mountain villages international Congress.**

In these ten years of activities, La.Pi.S. has organised events, promoted initiatives with public and private organisations, participated in the project "Experimental application of the smart level assessment to a sample of municipalities in the Pinerolo area", in collaboration with local and national public institutions, promoted the international ideas competition "Young people for a smart land open to Europe" with the "European Commission" and the "Agency for Digital Italy" patronages.

These events have always been promoted with the aim to spread a cultural approach to smart city paradigm, encourage the implementation of new experiences, best practices and successful projects.

Now, it's time to look beyond, share experiences and knowledge, face new challenges and achieve new goals.

To begin this ambitious path, La.Pi.S. has decided to focus its attention on one of the most important issues facing the scientific community worldwide today: **climate change**. A topic whose strategies, to mitigate causes and disastrous effects, have in the smart city approach one of the fundamental aspects to direct the studies, projects, economic resources, research and are the canvas on which to organise this congress; an event, we hope, which will be the first of a long series of appointments regularly scheduled.

The congress theme, **Smart strategies to mitigate causes and effects of climate change and reduce the environmental footprint** is finalised to focus the attention on case studies, best practices, projects,

scientific research, innovative proposals concerning **new building, urban, territorial and landscape design approaches to tackle climate change in smart cities, towns, rural and mountain villages, according to the innovative AI and IoT applications.**

To reach this goal, the congress is organised into two sessions: the morning session hosts presentations by Experts representing some Scientific Partners, the afternoon session is addressed to Experts whose papers have been selected by the International Scientific Committee as part of a path begun in the last months through the abstract submission phase.

All congress proceedings (papers and presentations) will be available on La.Pi.S.'s website after receiving feedback from Elsevier publisher about some paper publication proposals.

The congress organisation did not benefit from any source of funding, whether private or public, but exclusively from La.Pi.S.'s own resources. For this reason, La.Pi.S. is proud to have addressed all its efforts to welcome congress participants without any registration fee.

Access to Oval Pavilion is free after having downloaded the RESTRUCTURA 2024 ticket (<https://www.restructura.com/>).

However, in compliance with safety provisions, the access to event hall will be limited to seventy participants.

In cooperation with "Ordine degli Architetti, Pianificatori, Paesaggisti e Conservatori di Torino" and "Ordine degli Ingegneri di Torino", CFPs will be awarded to Architects and Engineers who are members of their corresponding professional organisations (See the organisations' institutional websites to check the CFPs awarded).

La.Pi.S. would like to address its heartfelt thanks to all people and organisations who have collaborated by presented their scientific contributions, Restructura exhibition and Lingotto exhibition center.

Special thanks and acknowledgements go to our Communication Partner Creativa s.r.l. for its technical support.

We warmly welcome all participants, and we wish them to enjoy attending the congress.

*Luigi Pinchiaroglio
President of La.Pi.S*

CONGRESS PROGRAM (*)

Lingotto Exhibition Center - Oval Pavilion - Event room - First Floor

North entrance: via G. Matté Trucco, 70 - South entrance: Italia '61 Footbridge Lingotto Railway Station (<https://www.restructura.com/>)

MORNING SESSION

9:15 PARTICIPANT REGISTRATION ()**

9:30 CONGRESS OPENING - Luigi Pinchiaroglio - La.Pi.S.

9:40 INSTITUTIONAL GREETINGS

Giuseppe Andrea Ferro - *President of "Ordine degli Ingegneri della Provincia di Torino"*

Gian Luca Forestiero - *Board Member of "Ordine degli Architetti della Provincia di Torino"*

Marco Brugo - *OICE national Board Member*

10:00 LEADING INNOVATIVE IDEAS TO CHANGE THE FUTURE OF SMART CITIES

Ezio Chiaramello - *ACEA Pinerolese Industriale S.p.A.*

10:20 MEASURING AND ASSESSING SUSTAINABILITY THROUGH LEED® RATING SYSTEM: A GROWING TREND, FROM GLOBAL TO LOCAL. FOCUS ON THE PIEDMONT REGION

Lorenzo Balsamelli - Elena Bo - Carlo Micono - *GBC Italia-Green Building Council Italia*

10:40 HUMAN-CENTERED SMART LANDS: INNOVATION FOR SUSTAINABLE URBAN AND RURAL FUTURES

Laura Morgagni - *Secretary General of Italian Technology Cluster for Smart Communities*

11:00 TECHNOLOGIES FOR SMART CITIES: A REFLECTION

Rodolfo Baggio - *Bocconi University-Dondena Center for Research on Social Dynamics and Public Policy*

11:20 TURIN SMART CITY: HOW A PHILANTHROPIC FOUNDATION CAN CONTRIBUTE TO EUROPEAN NET ZERO

Alberto Francesco Anfossi - *Secretary General of Fondazione Compagnia di San Paolo*

11:40 SMART METROMOUNTAIN: URBAN AND MOUNTAIN INTERDEPENDENCE AND PHYSICAL-DIGITAL INFRASTRUCTURES AS A TOOL FOR A NEW CLIMATE-RESILIENT LIVABILITY

Federica Serra - Antonio De Rossi - *Polytechnic of Turin-Department of Architecture and Design*

12:00 SMART CITIES AND SMART BUILDINGS: ANALYSIS OF THE ITALIAN CONTEXT OVER THE LAST 10 YEARS

Carlo Micono - *OICE - Association of engineering, architecture and technical-economic consulting organisations*

12:20 QUESTIONS & ANSWERS

12:45 LUNCH BREAK (*)**

AFTERNOON SESSION

13:45 PARTICIPANT REGISTRATION ()**

14:00 HISTORY OF A FAILURE: DOS AND DON'TS IN PLANNING A SMART CITY INTERVENTION

Claudia Snels - Ocleto D'Arcangelo - *ENEA-Italian National Agency for New Technologies, Energy and Sustainable Economic Development*

14:20 SMART ENERGY COMMUNITIES, A NATIONAL FRAMEWORK FOR ITALIAN SMART SUSTAINABLE CITIES

Antonella Tundo - Pasquale Capezzuto - Guglielmina Mutani - *ENEA-Italian National Agency for New Technologies, Energy and Sustainable Economic Development*

14:40 EXPLORING LINKED BUILDING DATA: ENHANCING URBAN DEVELOPMENT WITH SEMANTIC WEB TECHNOLOGIES FOR THE INTEGRATED CITIES OF TOMORROW

Elisa Fratton - Davide Clauser - *SYSTRA - SWS*

15:00 COFFEE BREAK (*)**

15:20 TOWARDS THE DECARBONISATION OF URBAN COMMUNITIES: EVALUATION OF SMART AND GREEN STRATEGIES TO REDUCE GAS CARBON EMISSIONS

Fabio Bisegna - Flavia Vespasiano - Laura Pompei - Chiara Burattini - Emiliano Belli

Alessandro Maria Bellucci - Francesco Di Vittorio - Laura Blaso - *La Sapienza University-Department of Astronautical, Electrical and Energy Engineering*

15:40 SMART SUSTAINABLE BUILDINGS DESIGN PRINCIPLES

Pasquale Capezzuto - Graziano De Sciolo - Dino Guaragnella - *Technical Commission UNI 058 Sustainable cities, communities and infrastructures*

16:00 QUESTIONS & ANSWERS

16:30 EXPERIENCES AND LESSONS LEARNED

Rodolfo Baggio - *Bocconi University-Dondena Center for Research on Social Dynamics and Public Policy*

17:00 WORK CONGRESS CONCLUSION - Luigi Pinchiaroglio - La.Pi.S.

Notes:

(*) PowerPoint presentations will be written in English – Congress speeches and discussions will be in Italian - Affiliations refer to the first author

(**) On-site registration is required only for Architects and Engineers who aim to obtain professional training credits (CFPs)

(***) Food and beverage area, Oval Pavilion ground floor

INTERNATIONAL SCIENTIFIC COMMITTEE



Rodolfo BAGGIO

Degree in Physics/PhD in Tourism management - Professor, contracted - Master in Economics and Tourism – Bocconi University – Milan - Italy Research Fellow - Carlo F. Dondeña Centre for Research on Social Dynamics and Public Policy – Bocconi University – Milan - Italy



Laura BLASO

Architect/PhD - Head of the Laboratory "Smart cities and Communities" of ENEA (Smart Energy Division) – Rome – Italy. She is involved in the implementation of digital infrastructures: Public Energy Living Lab for collecting/processing and evaluate data from energy public infrastructures; Smart City Platform to make available to citizens, municipalities, etc. a valid tool capable of collecting city data and harmonizing them through a common language; Smart Energy Communities with Dhomus platform and Recon tool for the economic evaluation of Renewable Energy Communities



Rui Alexandre CASTANHO

Associate Professor - International PhD and Doctor Honoris Causa - WSB University, Faculty of Applied Sciences, Dept. of Management - Dąbrowa Górnicza - Poland Vice-Coordinator CITUR (Centre for Tourism Research, Development and Innovation) – Madeira - Portugal
Editor in academic thematic indexed journals



Antonio DE ROSSI

Architect/PhD - Full Professor – Department of Architecture & Design, Politecnico of Turin – Italy Director of Masterplan Team, Politecnico of Turin - Italy Director of the scientific review "ArchAlp"- International magazine of alpine architecture and landscape Scientific/Technical fields of competence: Architecture, Landscape, Inner areas, Mountain, Regeneration, Reuse



Giorgio GALLO

Architect – Turin – Italy - Expert on: Environmental sustainability, Circular Economy and Green Public Procurement - Smart Land, Smart Communities and Smart City, with a special regards to the Public administrations side - Technology transfer and evaluation, included innovative procurements for Public Authorities - Tools for the participatory planning, the mediation and the conciliation, based on the "Community Action Planning" methodology - Energy Action Plans, guidelines for areas and buildings with high energy, environmental and management performances



Derya GÜLÇİN

PhD in Landscape architecture. Associate Professor in the field of landscape planning, fulltime position at Aydin Adnan Menderes University - Aydin – Turkey - since 2015, where she has performed teaching and research functions at the Faculty of Agriculture. Her academic studies are on green infrastructures, ecological networks, landscape diversity, landscape fragmentation, ecological connectivity of relict forests under changing climate



Fernando HERRÁEZ

PhD in Forestry Engineering. Associate Professor hired at the Catholic University of Avila – Spain - since 2002, where he has carried out teaching (at the undergraduate and postgraduate levels in subjects specific to the area of knowledge of agroforestry engineering), research and management functions in the Faculty of Sciences and Arts. The management work was carried out from the position of Vice-Dean of the Faculty from 2005 to 2020



Alessandro MARTELLI

Alessandro MARTELLI: Chemical Engineering and PhD in Nuclear Engineering – Retired since 2012, he has been former Professor of "Construction in seismic areas" at the Faculty of Architecture – University of Ferrara – Italy - with academic experiences in Italian and Chinese engineering Faculties. Former Director of ENEA Research Centre of Bologna – Italy – and previously of ENEA Section If "Prevention of natural Risks". Founder and Founding President of national and international scientific associations on modern anti-seismic isolation and energy dissipation systems. Expert, static and administrative tester on such systems



Davide MASTROIANNI

Archaeologist/PhD - Expert and independent researcher in Landscape Archaeology and Remote Sensing techniques National Coordinator of Georchology Thematic Area of SIGEA (Società Italiana di Geologia Ambientale) – Italy
Director of scientific journal – "Stratigrafie del paesaggio"



Carlo MICONO

Architect/PhD - Representative of the OICE: Association, belonging to Confindustria (the Confederation of Italian Industry), which represents Italian engineering, architectural and technical economic consultant organizations). Adjunct professor - Department of Architecture & Design, Politecnico of Turin – Italy. Professional and research activities focused on: the evaluation of the thermal, visual and energy performances of innovative building envelope systems; the definition of sustainability strategies in the project and in construction on an urban and building scale; the energy design of buildings with particular attention to the integration of systems for the use of renewable sources; the definition of strategies to ensure environmental comfort inside buildings



Ali Uğur ÖZCAN

PhDs in landscape planning and wildlife
He has been working in various academic positions at the Department of Landscape Architecture, Faculty of Forestry, University of Cankiri Karatekin, Çankırı - Turkey - since 2002. Associate Professor since 2020
Expert on scientific subjects such as landscape planning, landscape reclamation, erosion, wildlife and biogeography



Javier VELÁZQUEZ

Associate Professor hired at the Catholic University of Avila – Spain - since 2011, where he has performed teaching and research functions at the Faculty of Sciences and Arts, both at the undergraduate and postgraduate levels. Other tasks have been assumed to the functions of teaching, such as the Coordination of Distance Studies for the Environmental and Agroforestry Areas (from 2011 to 2013) and Vice-Rector for Research and International Relations (since 2013 until 2016)