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UNIVERSITÀ DEGLI STUDI
DI PERUGIA



CIRIAP

Centro Interuniversitario
di Ricerca sull'Inquinamento
e sull'Ambiente - "Mauro Felli"

Health & Environmental Resilience and Livability in Cities

The challenge of climate change

Conference & Workshop

19 - 20

JAN

2022



Conference & Workshop Program



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Conference & Workshop Program

Introduction

Due to the uncertainties and restrictions inflicted by the #COVID19 pandemic, and for everyone's safety following the Health Organization's recommendations, it is in everyone's interest to host the conference online. As pioneers of this movement, IEREK is proud to be hosting this conference online. IEREK believes that rather than giving in to this disease and stopping our progress, pushing forward is of utmost importance. So, how can participating in an international Video Conference boost your career, future potentials, and experience?

- Obtain an internationally accredited certification of participation, which could boost your future academic career opportunities.
- Discuss your research paper online with professors, stakeholders, and other authors (Online Oral Presentation).
- Make sure that your paper will get the maximum exposure in front of a relevant audience, as we share samples of publications within our weekly newsletter and online platforms.
- Get the chance to publish your paper with Springer in the [ASTI Book Series](#).
- Save costs of travel & accommodation.

About the Conference

IEREK is organizing the first international conference on "Health & Environmental Resilience and Livability in Cities - The challenge of climate change " in collaboration with the Department of Engineering, University of Perugia, Italy to be held online. By focusing on sustainable and comfortable urban built environments, with an emphasis on the correlation between architecture, engineering, and medicine facets in regards to comfort and wellbeing, we find the need to further pursue advancements in this conference's field. This conference brings together researchers and practitioners from the Engineering and Health sectors to involve them in a conversation that emphasizes what it is to take part in the science of built environment and climate change and human resilience.

This conference takes into account the significant shifts in climate variables, reflected in the form of extreme weather conditions and events, which we have witnessed over the past few years, coupled with infectious diseases and viruses. Their consequent disruptions are changing the Built Environment (BE), which calls for a pursuit for advancement and integration between the architecture, engineering, and medicine facets with regards to comfort and well-being.

Because the conference embraces active participation and a welcoming atmosphere, it will be followed by a comprehensive and constructive workshop (HERMES) that aims to provide insight and enlightenment to all who wish to broaden their horizons on the subject and take part in its propulsion. The workshop features acknowledged scientists from different parts of the world to discuss the correlation between environmental issues and health consequences. Medical science and engineering contribute to this aim through a discussion on recent scientific findings, as well as operative solutions thanks to keynote lectures and round tables.

Conferencing Platform

Download Latest Zoom Version: <https://zoom.us/download>

Guide to Using Zoom: <https://support.zoom.us/hc/en-us/categories/201137166>

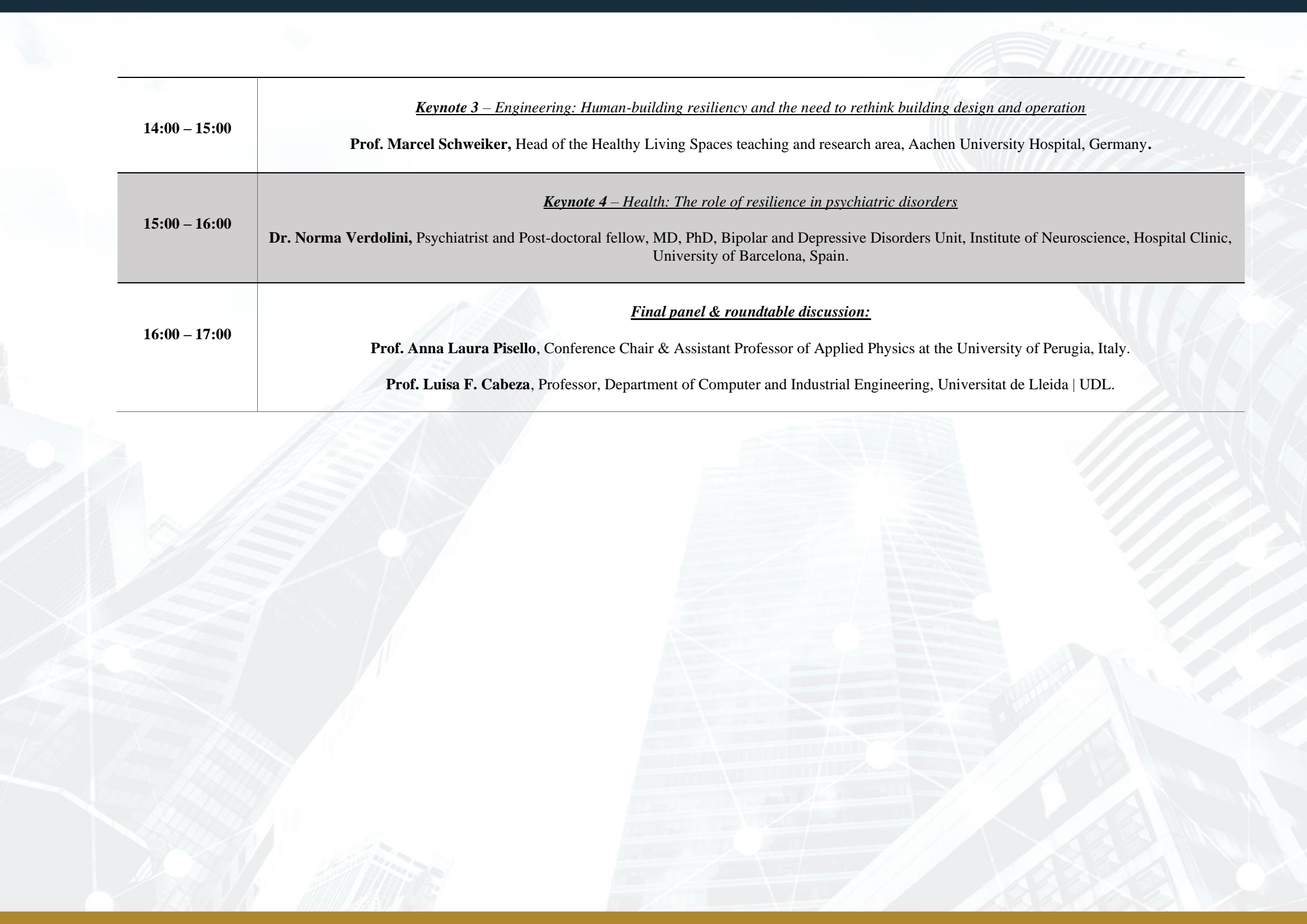
Workshop Program

19 January 2022 – Wednesday

(Venue: Online workshop)
(Time Zone: CET, Perugia, Italy)

09:00 – 09:30 | *Online Registration/ Web Log-in*
Delivery of Information and Networking

09:30 – 10:00	<p style="text-align: center;"><u><i>Opening speech and greetings</i></u></p> <p>Prof. Anna Laura Pisello, Conference Chair & Associate Professor of Environmental Applied Physics at the University of Perugia, Italy.</p> <p>Prof. Franco Cotana, Coordinator of the PhD program in Energy and Sustainable Development at the University of Perugia, Italy.</p>
10:00 – 11:00	<p style="text-align: center;"><u><i>Keynote 1- Health: The effects of urbanization on mental health</i></u></p> <p>Prof. Alfonso Tortorella, Full professor, chair Dept. Psychiatry, Faculty of Medicine, University of Perugia, Italy.</p> <p>Dr. Giulia Menculini, MD, Psychiatrist, Researcher, Neuroscience PhD student, Section of Psychiatry, University of Perugia.</p>
11:00 – 11:50	<p style="text-align: center;"><u><i>Keynote 2- Engineering: Role of Information for Modeling Human Exposure in Cities</i></u></p> <p>Prof. Masoud Ghandehari, Urban Systems Professor, Faculty of Civil and Urban Engineering, New York University, Tandon School of Engineering.</p>
11:50 – 12:40	<p style="text-align: center;"><u><i>Round table discussion:</i></u></p> <p>Dr. Souran Chatterjee, Postdoctoral Researcher at Central European University, Hungary.</p> <p>Dr. Ilaria Pigliautile, Assistant Professor, Engineering Department, CIRIAF - Interuniversity research center.</p>
12:40 – 14:00	<p style="text-align: center;"><i>Virtual lunch break</i></p>



14:00 – 15:00	<p style="text-align: center;"><u>Keynote 3 – Engineering: Human-building resiliency and the need to rethink building design and operation</u></p> <p style="text-align: center;">Prof. Marcel Schweiker, Head of the Healthy Living Spaces teaching and research area, Aachen University Hospital, Germany.</p>
15:00 – 16:00	<p style="text-align: center;"><u>Keynote 4 – Health: The role of resilience in psychiatric disorders</u></p> <p style="text-align: center;">Dr. Norma Verdolini, Psychiatrist and Post-doctoral fellow, MD, PhD, Bipolar and Depressive Disorders Unit, Institute of Neuroscience, Hospital Clinic, University of Barcelona, Spain.</p>
16:00 – 17:00	<p style="text-align: center;"><u>Final panel & roundtable discussion:</u></p> <p style="text-align: center;">Prof. Anna Laura Pisello, Conference Chair & Assistant Professor of Applied Physics at the University of Perugia, Italy.</p> <p style="text-align: center;">Prof. Luisa F. Cabeza, Professor, Department of Computer and Industrial Engineering, Universitat de Lleida UDL.</p>

Conference Program

DAY 1: 20 January 2022 – Thursday

(Venue: Online conference)
(Time Zone: CET, Perugia, Italy)

09:30 – 10:00 | **Online Registration/ Web Log-in**
Delivery of Information and Networking

10:00 / **Opening Ceremony**

Greetings and communications by the institution by Chair

Welcoming word from **Prof. Bruno Brunone**, Director of CIRIAF Interuniversity Research Centre on Pollution and Environment Mauro Felli at University of Perugia, Italy.

10:00 – 10:05 | **Prof. Anna Laura Pisello**, Conference Chair & Associate Professor of Applied Physics at the University of Perugia, Italy.

10:05 – 10:10 | **Prof. Bruno Brunone**, Director of CIRIAF Interuniversity research centre on pollution and environment Mauro Felli, University of Perugia, Italy.

10:10 – 10:20 | **Dr. Mourad Amer**, President and CEO of IEREK, A welcoming word: IEREK Presentation

10:20 / **Plenary Session**
Introducing Keynotes

Keynote 1:

10:20 – 11:00 | **Prof. Luisa F. Cabeza**, Professor, Department of Computer and Industrial Engineering, Universitat de Lleida | UDL.
"The role of buildings in climate change mitigation"

Keynote 2:

11:00 – 11:40 | **Prof. Riccardo Paolini**, Senior Lecturer, Faculty of Built Environment, University of New South Wales, Australia.
"Performance gap in urban overheating mitigation"

*All authors must commit to the time allowed for each paper presentation (**15 minutes**).

*A brief discussion (Q&A) is to be allowed after each presentation (**2-5 minutes**).

Virtual Group Photo

Session 1: Livability, environmental quality, and wellbeing at the heart of a City's Urban Planning	
Moderated by:	Prof. Claudia Fabiani, Assistant professor at Engineering Department, University of Perugia, Italy. Prof. Riccardo Paolini, Senior Lecturer, Faculty of Built Environment, University of New South Wales, Australia.
11:40 – 11:55	Greening the Local Solid Waste Management through Community Participation: Unfolding the Challenges and Creating Opportunities for Development Planning Alex Alazad, Dina Magnaye
12:00 – 12:15	Fire safety Issues and Concerns of Elderly in High-rise Residential Buildings in India Ankit Kumar, Pratyosh Madhavi
12:20 – 12:35	Integration of Structural and Energy Generation Systems for Comfort Conditions in Building Sureshbabu Karuppannan
12:40 – 12:55	Landscape catalogue as a tool for improving green infrastructure planning in central Mexico Isaias Hinojosa, Jairo Reyes Plata
13:00 – 13:15	Innovative digital design processes of hydraulic invariance to safeguard urban safety and quality in the Pescara basin area Gianmichele Panarelli, Clarissa Di Tonno, Davide Stefano, Sebastiano Carbonara
13:20 – 13:35	The summertime overheating signature of UK homes Paul Drury, Arash Beizae
13:35 – 13:45	<i>Discussion and Q&A</i>
13:45 – 14:00	<i>Break</i>

Keynote 3:

14:00 – 15:40 | **Prof. Martha Schwartz**, Professor of Landscape Architecture at the Harvard University, United States.

“Climate Ready” Perugia”

Session 2: Health Implications in a Changing Environment

Moderated by:	<i>Prof. Ilaria Pigliautile, Assistant professor at Engineering Department, University of Perugia, Italy. Prof. Cristina Piselli, Assistant professor of Environmental Applied Physics, Department of Architecture (DIDA), University of Florence, Florence, Italy.</i>
15:00 – 15:15	Generating a design concept of a multi-regulation biomimetic envelope as an approach to improving comfort conditions of the built environment Nada Kamel, Eman AlAkaby
15:20 – 15:35	Air Pollution and Solid Waste: Promoting Green and Resilient Recovery in Nigeria Cyril Effiong, Ejikeme Kanu
15:40– 15:55	The Role of Architectural Heritage in offering a more resilient lockdown in Egypt Tarek Teba, Nada Muhammed Elzoghby, Nevin Gharib
16:00– 16:15	Adaptation to UHI, health and energy efficiency issues in cities in a context of climate change Lucille Alonso
16:20 – 16:35	Calm space, An outdoor escape area; A feasibility study on social participation of children with autism Ali Hamzehloui
16:35 – 16:50	<i>Final Remarks and Conclusions by the Conference Chair</i>
16:50 – 17:00	<i>Closing Ceremony</i>