

THE INNORENEW COE
INTERNATIONAL CONFERENCE
2022

Izola | Slovenia



2022

Rethinking buildings and materials for a
sustainable future

AGENDA

THURSDAY 17 NOVEMBER 2022

8:00 - 8:45

Coffee



8:00 - 8:45

Registration

9:00 - 9:05

Welcome

Dr. Michael Burnard, InnoRenew CoE Deputy Director

9:05 - 9:35

Keynote

Assoc. Prof. Dr. Thomas Brudermann

Rethinking the role of individual decisions for a sustainable future

9:35 - 10:35

State-of-the-art solutions for building design and assessment

Session chair: Dr. Daša Majcen

Life cycle assessment of sustainable neighborhood

Mohamad Achour

Analysing carbon footprint and life cycle cost (LCC) of a one family dwelling for more sustainable building solutions

Erwin M. Schau

TimberLoop – The answer to high value circular timber use

Martin Weigl-Kuska

Integration of High-Speed 3D laser scanning and Photogrammetry for Computational Fluid Dynamics Simulation of the Airflow around buildings

Richard Acquah

10:35 - 11:00

Coffee break





11:00 - 12:00

State-of-the-art solutions for building design and assessment

Session chair: Dr. Daša Majcen

In-situ measurements and FE numerical study of InnoRenew CoE building's dynamic performance

Igor Gavrić

Optimizing neural networks for building energy demand estimation

Tamás Storc

Sensitivity analysis of comfort parameters

Istvan Dr. Kistelegdi

Point cloud and NURBS for modeling a decorative wall panels BIM element

Nikolina Raguž-Lučić

12:00 - 13:30

Lunch

13:30 - 14:45

Environmentally friendly and energy-efficient materials and practices to improve the built environment

Session chair: Jaka Pečnik

Antimicrobial Polylactic acid/Lignin/Cu Nanoparticles Composite Film Preparation for Food Packaging Applications

Esakkiammal Sudha Esakkimuthu

Encapsulation of fire retardants in wood modification processes - An overview of recent activities at Luleå University of Technology

Dennis Jones

Biocarbon with tailored properties for the adsorption of indoor volatile organic compounds

Mariem Zouari

Factors of wood substitution and their effects in the construction sector

Theresa Boiger

Reaction to fire characterization of densified-processed poplar and beech

Ulises Rojas-Alva

Coffee break

14:45 - 15:15

Showcase of Modified lignin nanoparticles for composite and bio-based/Cu packaging applications products (in the framework of the MSCA project), Tilia room

Esakkiammal Sudha Esakkimuthu

15:15 - 16:15

Environmentally friendly and energy-efficient materials and practices to improve the built environment

Session chair: Jaka Pečnik

Upcycling of wood and textile&leather waste into modern building materials

Patrycja Hochmańska-Kaniewska



15:15 - 16:15

Environmentally friendly and energy-efficient materials and practices to improve the built environment

Session chair: Jaka Pečnik

Modification of wood via biocarbon particles impregnation

Tania Langella

Emission of VOCs from wood materials and impact on indoor environment

Ingrid Bakke

Analysis and implementation of veneer production waste in order to design decorative wall panels

Domagoj Mamić

16:15 - 16:20

Closing

16:20 - 17:30

InnoRenew building tour (optional)

19:00

Conference dinner

FRIDAY 18 NOVEMBER 2022

8:30 - 9:00

Coffee

9:00 - 10:30

Bridging the gap between research and society

Session chair: Sasikala Perumal

Communication strategies for waste management in the local community: a case study of Chak Daeng temple, Thailand

Prapassorn Siriwichai

Bridging the gap between research and society with education for sustainable development

Vesna Starman

Implementation of spectral sensors and chemometric modelling for development and support of smart supply chain in the agri-food sector

Albert Kravos

Communication of sustainable construction topics through social media

Lea Primožič

Carbon storage in harvested wood products in Europe – State of the Art analysis and research outlook

Daša Majcen

Climate change adaptation and mitigation activities of Austrian and Slovenian enterprises in the wood-value chain

Miguel M. Torres



10:30-11:00

Coffee break

11:00 - 12:00

Built environments for well-being

Session chair: Dr. Dean Lipovac

Wood material and its positive impact in the context of preschool educational programs

Jakub Hanták

The impact of built environment on movement behaviours: a brief overview of the systematic reviews

Kaja Kastelic

Addressing older adults' needs with built environment features – Systematic literature review

Mateja Erce

The influence of the position of noise sources in lecture halls and its impact on the subjectively evaluated speech intelligibility

Rok Prislan

12:00 - 12:05

Closing

Dr. Michael Burnard, InnoRenew CoE Deputy Director

12:05 - 13:30

Workshops

Wood material flows modelling: issues, challenges, and a better future for our youth

Dr. Črtomir Tavzes, Dr. Balázs Dávid

13:30-14:30

Renewable material composite preparation

Dr. Esakkiammal Sudha Esakkimuthu

12:05 - 14:30

Cold refreshment

