

# DIPARTIMENTO DI ECONOMIA, INGEGNERIA, SOCIETÀ E IMPRESA

Università degli Studi della Tuscia UNISOL research group

# SPECIALIZED WINTER SCHOOL

# Introduction to Daylighting Design in Buildings

Unleash the potential of daylight and elevate your design skills! This comprehensive program delves into the theoretical foundations, advanced simulation methodologies, and practical applications essential for optimizing architectural spaces through daylight utilization, with a primary focus on energy efficiency.

# **Key Areas of Focus:**

- Theoretical foundations of daylighting design
- Implementation of simulation tools for accurate analysis
- Practical applications emphasizing energy-efficient architectural solutions

Designed for an international audience of students, professionals, and enthusiasts, this Winter School offers a unique opportunity to engage with leading experts from around the world. Join us as we navigate the forefront of research, where knowledge seamlessly integrates with the pursuit of energy-efficient building practices, guided by the insights of international luminaries in the field.

# **DAY 0 - 7 Jan**

16:00 - 16:30 Registration

16:30 - 17:00 Winter School Overview

17:00 - 18:00 Introduction and Keynote

#### **DAY 1 - 8 Jan**

09:00 - 09:45 Photometry and lighting metrics - Niko Gentile (Lund University)

09:45 - 10:30 Standards and daylight metrics - V. Lo Verso (Politecnico di Torino)

11:00 - 11:45 CBDM metrics - M. S Kanhie (UCL)

11:45 - 12:30 EN 17037 - N. Sokol (Politechnika Gdańska)

14:00 - 15:30 Understanding the principles of daylight modelling w/ simulation tool

16:00 - 18:00 Application to case-study: Simulation analysis of the existing status

# **DAY 2 - 9 Jan**

09:00 - 09:45 Daylight in the early design stage - F. Giuliani (UNITUS)

09:45 - 10:30 Sunlight and Shadow maps - L. Zaniboni (DTU)

11:00 - 12:30 *Practical application: Climate analysis of the case-study* 

14:00 - 14:45 Daylit spaces and windows

14:45 - 15:30 Building materials and daylight - V. Lo Verso (Politecnico di Torino)

16:00 - 18:00 Application to case-study: Improved daylighting design proposal

## **DAY 3 - 10 Jan**

09:00 - 12:30 Team works

14:00 - 14:45 Final presentation of daylighitng projects

14:45 - 15:30 Peer review and feedback

15:30 - 16:00 Closing ceremony and certificate distribution



# 7-10 January 2024

Santa Maria in Gradi, 4, Viterbo, Italy

# Contacts

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