

# SATELLITE EVENTS

## IN 32ND INTERNATIONAL CONGRESS ON SOUND AND VIBRATION (ICSV32)

# ACOUSTICS & VIBRATION ACADEMY (AVA)

Current Trends and Advanced Methods in Acoustics and Vibration

## MODULE 2

“Room Acoustics Analysis Methods and  
Solutions for Open Plan Offices”

Organiser: Prof. Dr. Peter Svensson

**AVA** Acoustics &  
Vibration  
Academy

**ICSV32**

32<sup>nd</sup> International Congress  
on Sound and Vibration

05 - 10 JULY 2026  
**I S T A N B U L**

The annual congress of the International  
Institute of Acoustics and Vibration (IIAV)

Supported by:



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## Current Trends and Advanced Methods in Acoustics and Vibration

 **04-05 July 2026**

 **Mimar Sinan Fine Arts University, Bomonti Campus**

Cumhuriyet Mah. Silahşör Cad. No:71 Bomonti  
Şişli, İstanbul, Türkiye

 **Registration** (open until April 30, 2026): **\$150**

 **Participation Grants** (open until April 30, 2026):  
Scholarships of **\$150**, covering the registration  
fee will be awarded to **10 students each**.



## MODULE 2

### “Room Acoustics Analysis Methods and Solutions for Open Plan Offices”

**Organiser:** Prof. Dr. Peter Svensson

#### 2.1. Room Acoustics Modelling & Theory

Peter Svensson, Norwegian University of Science and Technology, Norway

#### 2.2. Acoustic Design of Open Plan Offices

Valtteri Hongisto, Turku University of Applied Sciences, Finland

#### **PBL: Room acoustics characterisation through measurements**

Peter Svensson, Norwegian University of Science and Technology, Norway

Onur Akaydın, Pro-Plan Ltd., Türkiye

Dilara Kelle, Kadir Has University, Türkiye

Ayça Şentop Dümen, Norwegian University of Science and Technology, Norway

#### **PBL: Screens For Offices**

Peter Svensson, Norwegian University of Science and Technology, Norway

This course provides an integrated overview of room acoustics for open-plan offices, combining theoretical foundations, measurement methods, noise control solutions and a case study on acoustic screens.

It gives a short review of fundamental room acoustics theory, with a focus on geometrical acoustics and diffuse-field theory. The concepts of coupled spaces and noise barriers, and their relationship to open landscape offices, will then be discussed in more detail. Possibilities and limitations for geometrical acoustics-based methods and typical room acoustic simulation software will be discussed. Function-specific acoustic criteria, ISO 3382-3 methods, and noise control solutions will be introduced together with case studies.

### **PBL: Room Acoustics Characterization Through Measurements**

This study evaluates a demo room under two conditions. Initial measurements include A-weighted SPL of speech, background noise, STI, and ISO 3382-3 parameters, compared with predictions using an online regression model. In the modified setup, screens are added, and the same procedures are repeated to assess their impact on acoustic performance.

### **PBL: Screens For Offices**

This study presents an analysis of measurement results, simulations, and the overall acoustic performance of the demo room (with and without acoustic screens), and assesses acoustic improvements using an online model.

## EDUCATORS



**Peter Svensson**

*Norwegian University of Science and Technology, Norway,*

Peter Svensson has been professor at the Department of Electronic Systems at Norwegian University of Science and Technology (NTNU) since 1999, in the acoustics group. He has an MSc in eng. phys. (1988) and a PhD in acoustics (1994) from Chalmers University of Technology in Gothenburg. He has had research visits at Kobe University (1997-98), Rensselaer Polytech Institute (2007), University of Reading (2012-13), University College London (2017), Chalmers University of Technology (2023), KTH, Stockholm (2023), and Aalto University (2023). Previously he has been vice president of the European Acoustics Association (2007-13), president of the Norwegian Acoustical Society (2004-06), and board member of the Swedish Acoustical Society (1996-99). Currently he is vice president of Initiative for Science in Europe (2024-). His research interests are room acoustics and electroacoustics, in particular computational methods and measurement techniques, but also auralization techniques (virtual acoustics), and psychoacoustics - the perception of speech and music in rooms.



**Valteri Hongisto**

*Turku University of Applied Sciences, Finland*

Valteri Hongisto is a research group leader in Turku University of Applied Sciences in Finland. Hongisto received master level in 1993 (physics, University of Turku) and doctor level in 2000 (acoustics, Aalto University). Hongisto has docent position both in Aalto University (noise control, 2006-) and in University of Turku (environmental psychology, 2018-). His research in engineering covers architectural acoustics and noise control in workplaces, buildings, ships, environment, and underwater. Research in environmental psychology and psychoacoustics complements engineering research by proving the human benefits of noise control. Hongisto is the convener of ISO TC 43 SC 2 WG34 (speech privacy) being responsible for three international measurement standards. Current work focuses on research project ideation, networking, research supervision, teaching, and scientific writing. Hongisto has been the PI of 18 public research projects, authored or co-authored in 88 peer-reviewed papers, and supervised six doctoral dissertations. His most cited research area is office noise.



**Onur Akaydin**

*Pro-Plan Ltd., Türkiye*

He received his B.Sc. in Mechanical Engineering in 2010 and his M.Sc. in Mechanical Dynamics, Vibration, and Acoustics in 2013 from Istanbul Technical University. Since 2010, he has been working at Pro-Plan Ltd. as a Sales and Application Engineer, specializing in acoustic and vibration measurement and analysis systems. He has extensive hands-on experience delivering training and consultancy services to a wide range of organizations in areas such as sound power measurement, environmental noise assessment, room and building acoustics, experimental modal analysis, and noise source identification. His work primarily focuses on practical, application-oriented solutions using advanced engineering tools, particularly Hottinger Brüel & Kjaer systems.



**Dilara Kelle**

*Kadir Has University, Türkiye*

Dilara Kelle is an academic and researcher in the field of Building Science. She received her B.Sc. degree in Interior Architecture from Istanbul Technical University (ITU) in 2007. She subsequently pursued an M.Sc. degree in Environmental Control and Building Technologies at ITU. She continued her academic career with a Ph.D. degree in Building Science at Istanbul Technical University and received her Ph.D. in 2023. During her doctoral studies, her research focused on room modes, wave-based simulations, modal decay time perception, and the acoustical design of small rooms. Following the completion of her Ph.D., she joined Kadir Has University as an Assistant Professor, where she has been actively involved in interior architectural design studios, building technology courses, and interdisciplinary research projects. She is currently involved in a research project focusing on the acoustic performance and user perception in open-plan offices and collective workspaces.



**Ayça Şentop Dümen**

*Norwegian University of Science and Technology, Norway*

Ayça Şentop Dümen is an Associate Professor at the Department of Civil and Environmental Engineering at the Norwegian University of Science and Technology (NTNU). She completed her bachelor's, MSc, and PhD degrees at Istanbul Technical University. She worked at Istanbul Bilgi University (2013–2023) including two years as Vice Head of Department. She was a guest researcher at Aalborg University (2019–2020) and a board member of the Turkish Acoustical Society (2018–2024). Alongside academia, she has worked as an acoustic consultant and co-founded Acoustic-HUB. Her research interests are building acoustics, measurements, subjective perception, regulations and construction detailing. She contributed to the preparation of national regulation on noise control in buildings for the Republic of Türkiye. She currently serves as the Scientific Chair for ICSV32 and AVA, working to build an engaging program.

## PROGRAM

| MODULE 2:<br>ROOM ACOUSTICS ANALYSIS METHODS AND SOLUTIONS FOR OPEN PLAN OFFICES |  |                     |   |
|--|--|---------------------|---|
| 04.07.2026 - Saturday  |  | 05.07.2026 - Sunday |   |
| TIME   | TOPIC  | TIME                | TOPIC   |
| 09.00-13.00  | <b>1- Room Acoustics Modelling and Theory</b><br>Peter Svensson    | 09.00-13.00         | <b>PBL: Room Acoustics Characterization Through Measurements</b><br>Peter Svensson<br>Onur Akaydın<br>Dilara Kelle<br>Ayca Şentop Dümen |
|  | Technology meet  |                     |   |
| 13.00-14.00  | Lunch  | 13.00-14.00         | Lunch   |
| 14.00-18.00  | <b>2- Acoustic Design of Open Plan Offices</b><br>Valteri Hongisto |                     | Technology meet   |
|  |  | 14.00-18.00         | <b>PBL: Screens For Offices</b><br>Peter Svensson   |
|  |  | 18.00-18.30         | Exam<br>(optional – for students)   |

## ORGANISING COMMITTEE



Bilge Şan Özbilen



Ayca Şentop Dümen



Papatya Nur  
Dökmeci Yörükoğlu



Konca Şaher



Dilara Kelle

\*The program is subject to change until the event date.