

## Leaflet Master Class Building Acoustics Transfer of acoustical energy across junctions

### Contents

The goal of this Master Class is to study building acoustics in depth. For three days, you will gain theoretical knowledge and do laboratory experiments in the presence of leading world-reknown professionals. The focus of this Master Class is on determining and interpreting the transfer of acoustical energy across the junction of structural elements in buildings.

The Master Class is complemented by workshops in calculation models and measuring sound (vibrational power transmission across a junction and radiation efficiency of structural elements). In a guest lecture, the topic of (perceptible) floor vibrations will be covered.



### What will be presented?

- Theory of sound transmission:
  - Airborne, impact and flanking sound transmission.
- Acoustical performance of building elements and junctions.
- Workshop in calculation models: Modelling of building structures and interpretation of calculation results.
- Workshop on (perceptible) floor vibrations.
- Practical experience in measuring sound:
  - The determination of the vibration power transmission across a junction between structural elements
  - The determination of the radiation efficiency of structural elements.

### For whom?

The master class is primarily meant for acoustics consultants with several years of experience. The participants are expected to have considerable knowledge and experience in the field of building acoustics. Also, this Master Class can be suitable interesting for PhD students and post-doctoral research fellows. The maximum size of the group is 9 persons.

### The master

The class will be given by prof. E.(Eddy) Gerretsen, who has been scientific researcher at TNO Delft and professor at the Eindhoven University of Technology on "Structure borne sound in buildings". Eddy Gerretsen also teaches the Advanced Course on Acoustics in Antwerp and a course in practical building acoustics at the SKB (Stichting Kennisoverdracht Bouwfysica). He was involved in the development of calculation models in building acoustics, resulting in an active role on the development of the well known EN 12354 standards series. One of his breakthroughs has been the introduction of the vibrational power transmission across junctions Kij. He now further develops the standards for lightweight building structures and noise of building services within the CEN working groups.

### Guest speaker

A guest lecture will be given by drs. A.(Arnold) Koopman. He is an expert in vibrations in building structures in the low frequency range. More info about the guest lecture will follow soon.

### Dates

The Master Class will take place from Thursday 4 June through Saturday 6 June 2015.

De Rondom 10  
5612 AP Eindhoven  
Nederland  
tel. (+31) 040 247 27 00  
fax. (+31) 040 246 36 14

**level**  
acoustics

[www.levelacoustics.nl](http://www.levelacoustics.nl)  
[info@levelacoustics.nl](mailto:info@levelacoustics.nl)  
KVKnr. 17196196  
BTWnr. NL 817 010 476 B01  
Rek.nr. 52 26 40 923

## **Location**

Laboratorium voor Akoestiek (Level Acoustics BV)

The laboratory is located at the campus of Eindhoven University of Technology in the Netherlands.

## **Costs**

The cost for attending the Master Class is:

- € 3.055 (VAT excluded) including a two night's stay in a hotel;
- € 3.165 (VAT excluded) including a three night's stay in a hotel;
- € 3.275 (VAT excluded) including a four night's stay in a hotel.

Also included are:

- A reader with literature and presentation sheets;
- Breakfast, lunch and diner.

For (PhD) students we will use a reduced fee, please send us an email about the possibilities.

## **Registration**

You can register for the Master Class by filling in the paper registration form thoroughly and sending it to Level Acoustics by mail or email. Registrations will be accepted in the order in which they are received, up to a maximum of 9 participants. After receiving the registration folder, we will send a confirmation and an invoice. The payment must be fulfilled within 30 days after receipt of the invoice. Your registration for the Master Class is confirmed after we receive the course fee. The final registration date is the 18<sup>th</sup> of May 2015.

## **Cancellation**

If you cancel more than four weeks before the Master Class starts, the course fee will be refunded, less € 327,50 for administration costs. If you cancel within one to four weeks before the Master class starts, a refund of 50% of the course fee is given. If you cancelling within the last week before the Master Class starts, there will be no refund of the course fee. However, it is possible to send a substitute to follow the class, provided he or she has considerable knowledge and experience in the field of building acoustics. If there are not enough participants, Level Acoustics has the right to cancel the Master Class, up to one week before the start of the master class. In that case, the total course fee will be refunded.

## **Information and registration**

Level Acoustics BV

attn. MSc. Nicole van Hout

De Rondom 10, 5612 AP Eindhoven, The Netherlands

Telephone +31 40 2472700

Email [n.h.a.m.v.hout@tue.nl](mailto:n.h.a.m.v.hout@tue.nl)

Internet [www.levelacoustics.nl](http://www.levelacoustics.nl)

## **Download the registration form here:**

<http://www.levelacoustics.nl/education/masterclasses/info/regformMCBA15.doc>

## **Program**

### **Thursday 4 June**

- 10.00-10.30 Reception with coffee
- 10.30-12.00 Introduction and theory of sound transmission
- 12.00-13.00 Lunch
- 13.00-14.00 Theory of sound transmission
- 14.00-15.00 Introduction workshop for measuring sound: measurement system and software
- 15.00-15.30 Break
- 15.30-17.30 Workshop for measuring sound: part 1  
(Kij, Radiation factor, Surface contribution)
- 17.30-19.30 Dinner
- 19.30-21.00 Case Studies

### **Friday 5 June**

- 09.00-10.30 Theory of sound transmission
- 10.30-12.30 Working out measurement results
- 12.30-13.30 Lunch
- 13.30-15.00 Theory of low frequency sound and vibration
- 15.00-15.30 Break
- 15.30-17.30 Workshop for measuring sound: part 2 (Low frequency sound)
- 17.30-19.30 Dinner
- 19.30-21.00 Discussion of measurement results

### **Saturday 6 June**

- 09.00-10.30 Introduction to modelling workshop
- 10.30-11.00 Break
- 11:00-13.00 Workshop modeling
- 13.00-14.00 Lunch + Discussion of modelling results
- 14.00-15.00 Conclusion