

The Sennheiser logo, consisting of a blue square with a white diagonal line, followed by the word "SENNHEISER" in a bold, blue, sans-serif font.

SENNHEISER

A vibrant photograph of a live music performance on a stage. The scene is bathed in bright green and yellow stage lights, creating a hazy, energetic atmosphere. In the foreground, the silhouettes of a large crowd are visible, with many people raising their hands in the air. On the stage, a band is performing: a guitarist on the left, a singer in the center, a drummer in the background, and another guitarist on the right. The overall mood is one of excitement and high energy.

Live Mixing Workshop

January 24th–28th, 2010 | Mao Livehouse Shanghai | Shanghai, China
hosted by Sennheiser Sound Academy



- ▶ Learn how to set-up a live music event!
- ▶ Work with the band and all equipment involved!
- ▶ Some of the best FOH and monitor engineers in Germany will teach you the theory and most importantly, show you how the job is done live!
- ▶ Roll up your sleeves and get your hands dirty!

Gregor Zielinsky

Education/Studies Music Producer (Diplom-Tonmeister), Music Academy, Detmold, Germany

Mr. Gregor Zielinsky has in-depth experience with classic music recordings. His work spans more than two decades recording with top classical artists such as Herbert von Karajan and Leonard Bernstein. For his collaboration with the latter he won the Grammy Award in 1992. Gregor is lecturing at the Music Academy Hanover and as a guest lecturer at Stanford and New York University. He joined Sennheiser in 2000.

Wireless Engineer Klaus Willemsen

With Sennheiser since 1972. Started in RF Development. Since 1985 sought-after application engineer, who supports big events all over the world like Eurovision Songcontest (18 times), Olympic Games (6 times), 86664 Mandela Concert and Live8 with wireless microphone systems.



The Monitor Engineer Wayne "Heights" Gittens

Education Mechanical engineering

Life Born in Barbados, Heights started playing music in 1969 in his home country. About ten years later, he left Barbados to tour Germany and to play reggae & soca Music all over Europe. He has also worked in recording studios and as a record producer. He later gave up the studios to concentrate on mixing live bands and then later, to move from FOH to in-ear monitoring.

He started working with Sennheiser in 2000, at Expo 2000 in Hanover.

In 2003, he was one of the sound engineers that presented the first "Live Mixing Workshop" in Hanover.

Front of House Oliver Voges

Education Audio engineer degree 1994

Life Oliver Voges started playing the guitar at the age of eleven and has been touring with his band since he was 14. After his studies, he started working for different sound reinforcement companies and studios. He toured worldwide with artists such as: Faith No More, Deftones, Tangerine Dream, David Copperfield, Sarah Brightmann, Naturally Seven, Scooter, Mousse T., Peter Maffay, and Fettes Brot.

Also he has mixed live shows at the biggest festivals such as Rock am Ring, Rock im Park, the Hurricane Festival, Southside, Mera Luna, Sun Moon and Stars, Wacken Open Air, and the Montreux Jazz Festival.

Since 2002, Oliver has worked as the FOH engineer for the ECHO award show and has been involved in many other live music TV shows:

- ▶ MTV music awards
- ▶ THE DOME
- ▶ Bravo Super Show
- ▶ Bambi

Oliver was one of the founders of the Sennheiser Live Mixing Event in 2003 and since then has been a permanent member of the team.

Frequency Management Svenja Dunkel

Education Certified choirmaster | Event technician degree

Life Her life is the stage! She is a certified choirmaster and has studied drums, has an event technician degree and is still working as an artist as well.

Hence, Svenja knows the stage from on top of it as well as from backstage. As a freelancer, she works for companies and event managers. For instance, her job includes frequency and stage management for TV award shows, concerts and fairs as well as for corporate events around the globe.



Sunday | January 24th, 2010

01:00 pm	Meet and greet plus Introduction Sennheiser Sound Academy Crew & host Gregor Zielinsky
01:30 pm – 03:00 pm	FOH sound theory Olli Voges <ul style="list-style-type: none">• Gain structure: Finding the right working levels of each step of audio signal processing• Assigning a frequency range to each instrument, e.g. where to place bass drum versus bass• Collaboration with the band
03:00 pm – 03:15 pm	Break
03:15 pm – 04:45 pm	Monitor sound theory Heights Gittens <ul style="list-style-type: none">• The ear: a volatile system• Communication with musicians• Organizing the mixer• Working with wedges versus wireless monitoring• What is the best sound for the musician?
04:45 pm – 05:30 pm	Final questions and answers Olli Voges, Heights Gittens, Svenja Dunkel

Monday - Tuesday | January 25th - 26th, 2010

All rotating:	Set-up of equipment Ziqian Chen, Olli Voges & Heights Gittens
10:00 am - 11:30 am	Positioning of PA system <ul style="list-style-type: none">• Where to place which speaker and why• How to get the best sound in each part of the venue
11:45 am - 01:15 pm	
02:15 pm - 03:45 pm	FOH <ul style="list-style-type: none">• Signalchain• Routing• Gain Structure• Plug Ins• Use of digital systems, EQs
04:00 pm - 05:30 pm	
Breaks in between	Monitor desks <ul style="list-style-type: none">• Arranging the monitor engineer's workplace for best performance• Eye contact with musicians• Antenna and RF It's a matrix! Many inputs and outputs into ear mon
	Wireless Svenja Dunkel
	Praxis in Wireless <ul style="list-style-type: none">• Hands on Equipment• Working with presets and making them work!• Arranging intermodulation-free transmission
05:30 pm till fade	Final questions and answers Olli Voges, Heights Gittens, Svenja Dunkel, Patrick O'Connor



Wednesday | January 27th, 2010

- 10:00 am – 01:00 pm
- Putting it all together** Olli Voges, Heights Gittens, Svenja Dunkel
- Setting up the connections between FOH, Monitor & RF
- Mic set-up on stage** Heights Gittens
- Which mic for which instrument
 - How to mic different instruments
 - Avoiding typical positioning mistakes - how not to
- Line check** Olli Voges & Heights Gittens
- How to find all the right ways from and to the stage
 - Getting it done quickly
 - Workflow – organization is the key
- 01:00 pm – 02:00 pm
- Break**
- 02:00 pm – 05:30 pm
- Monitor wedges and FOH sound check** Olli Voges & Heights Gittens
- How to get the best sound with PA and wedges
 - Frequency ranges
 - Why is the drum sound so very important
 - How to obtain the best punch from the bass drum
 - How to get the vocals through the band
- Final questions and answers**
Olli Voges, Heights Gittens, Svenja Dunkel, Patrick O'Connor

Thursday | January 28th, 2010

- 10:00 am – 01:00 pm
- Soundcheck Wireless Monitoring** Olli Voges, Heights Gittens, Svenja Dunkel
- Optimizing stage and FOH sound
 - Difference of sound with and without wedges instead of IEMs
 - Optimizing the positioning of instruments
 - Avoiding leakage from the stage
 - Use of filters and FX
- Final Sound Check**
- 01:00 pm – 02:00 pm
- Final Q & A and Workshop wrap-up** Olli Voges, Heights Gittens, Svenja Dunkel
- The most important rules of thumb
 - Please remember...
- 02:00 pm – 03:00 pm
- Break & last preparation for live music**
- 03:00 pm till End
- Live music concert**

* Monday - Tuesday | January 25th- 26th, 2010 | Melting Pot

- 10:00 am – 01:00 pm
- Wireless - Part I: Wireless cabling** Klaus Willemsen
- Many cables for wireless transmission
 - What makes a good cable
 - Picking the right antenna
 - Obtaining the best RF signal quality for antenna cables
 - How does the ECHO award show do it? Managing a complex RF system with 50 channels - or more!
- 02:00 pm – 05:00 pm
- Wireless - Part II: Frequency management for beginners** Klaus Willemsen
- Calculating frequencies with software
 - Working with presets and making them work!
 - Arranging intermodulation - free transmission