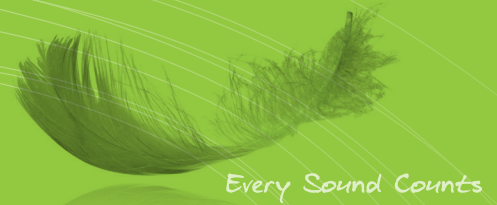


Silentium ANC Workshop



Get the **Quiet**, Competitive Edge!

Silentium's Active Noise Control Workshop – At Your Place or Ours – Teaches Your Engineers to Create Quieter and More Profitable Equipment

Create Active Noise Control (ANC) Solutions with the Experts

Silentium Ltd. introduces a three-day workshop led by Silentium technicians and engineers with proven experience in ANC development at either your offices or ours. At the workshop, your technical staff and design team will learn the entire process of creating an ANC-based product.



The intensive training includes an introduction to ANC theory, how to put the technology to work, analysis of ANC performance estimation and acoustical considerations of product design; furthermore, practice sessions are held daily for building ANC solutions within your own technology and products, focusing on the insights required to mass produce your products leveraging ANC.

What is Included in the Workshop

The participants will gain familiarity with the range of S-Cube™ products, particularly the S-Cube Development Kit (SCDK™), allowing system designers to develop custom noise-reduction solutions for loud equipment.

The workshop includes an introduction to the S-Cube

controller, the key element for incorporating ANC technology in the mass-production stage and a comprehensive overview of the most common algorithms for ANC and the S-Cube user interface necessary to execute them. The participants will experiment with practical ANC calibration processes during the workshop and benefit from several case studies utilizing ANC technology.

Who Can Benefit from the ANC Workshop

The workshop is recommended for technical staff, design/engineering staff and research staff who are looking for practical information and guidance on ANC solutions for their product development. The workshop instructors have all led several development projects at Silentium Ltd. and will assist and support class discussions based on their extensive personal project experiences.

Workshop Benefits

- Gain theoretical knowledge about Active Noise Control
- Learn to implement ANC in product design
- Become familiar with engineering and production guidelines
- Experience ANC development tools



2 Bergman Street, Tamar Science Park Rehovot 76703 ISRAEL | Tel. +972-8-946 8664 | Fax. +972-8-946 8604
info@silentium.com | www.silentium.com

We are continually improving our products. Specifications are subject to change without prior notice.

Active Noise Control Workshop - Syllabus

Silentium offers you eight content packages from which to choose, according to your main interest in ANC. Based on your selections, we will custom tailor a three-day workshop targeted to your specific needs.

Silentium Tools Installation Manual

1. Introduction to Signal processing

- Signals and Systems
- Fourier transform
- Digital systems
- Sampling
- Delay line
- FIR filters

2. Active Noise Control in Ducts

- Complete System-Block diagram
- ANC in a duct -theory
- Performances limits

3. ANC Fundamentals

- The superposition principle
- Basic ANC system block diagram
- Paths timing
- Echo cancellation
- Virtual microphone
- Acoustic fields and the spatial challenge

4. ANC Tools

- The S-Cube™ Monitor
- S-ANC Tool
- Adaptive Filter theory
- Application Examples & Coherence
- ANC Workflow

5. First ANC practice

- Calibrating "Quiet Fan" ANC system

6. Advanced ANC practice

- Resonance Chamber
- Speaker location-Consideration & implementation
- Reference microphone location
- Duct
- Error microphone location – Multiple Error Sensor Technology

7. ANC development

- Project Life Cycle (PLC)
- ANC Examples
- Noise mapping & Analysis
- Passive material-Absorption (NRC), Blocking (STC), Composites (STC+NRC), Silencers (NR)

8. Second ANC practice

- Building an ANC solution from scratch

Silentium's ANC Workshop - Your place or ours

For your convenience, we offer our workshop at our offices or on site. For more information or to schedule a workshop, contact: Anat Kutner at: anat@silentium.com