



# ACOUSTICS SYSTEMS ENGINEERING

## ***Course Descriptions***

Acoustics involves the generation of noise, its transfer through solid structures and fluids, and the response of the receiver (a person or equipment). Usually the objective is to control the response to an acceptable level at a minimum added cost, weight or size. Often the details are complex, the number of variables is high, and conflicting constraints operate. Application of SE techniques is essential before an efficient and effective result can be achieved.

The main principles will be introduced, with detailed information included in the hand-outs. Their application is explained using practical examples and reinforced by hands-on examples for familiar acoustics problems.

## ***Learning Outcomes***

- Understanding of essential acoustics theory
- Breaking down of any problem into simpler components and interfaces
- Application of the V model applied to acoustics, guided by practical examples
- Use of freely available spreadsheet tools, Apps and data references to support the SE in acoustic problem solving and optimisation
- Creative approaches to acoustics, noise and vibration control

- Solution of a typical problem, reduction of noise in a machine environment to comply with safety regulations.
- Confidence in tackling diverse acoustics situations encountered in real-world engineering

### ***Who Should Attend?***

This course is ideally suited to mechanical, civil, electrical, medical equipment and aerospace system engineers who need to understand and show compliance with acoustics requirements, integrate acoustics into product design and gain winning sound quality for their product.

### ***Course Rates***

Early Bird: 1,350 CHF; Regular: 1,500 CHF

### ***Duration***

2 days

### ***Delivered By***



Nick Eaton

Nick Eaton holds a Masters in Sound and Vibration from Southampton ISVR, an Engineering Bachelors from Surrey University and is a Chartered Engineer with the UK IMechE. He previously worked at GKN-Westland and RUAG Space between 1990 and 2017, in Acoustics Analysis, Technology and Systems Engineer roles. He is now leader of a consulting company Space Acoustics GmbH, offering advanced analysis, design and validation services to aerospace, and general industry. Nick is an internationally recognised expert in acoustics and systems engineering.

