# **PSYCHOACOUSTICS**

### **INTRODUCTION**

One-day Course 6 Participants

### **DATES AND TIMES**

Flexible

## **PREREQUISITIES**

Experienced Engineers or PhD Assistances who work in Automotive or NVH Field

### **LEARNING OBJECTIVES**

- ✓ Understanding the sound perception phenomena
- Express critical thinking about psychoacoustics parameters
- ✓ Implementation of sound assessment methods
- ✓ Criticize sound quality and sound design

### TRAINING CONTENT

### Introduction

- New Challenges & Open Questions
- Importance of the sound awareness
- Application Areas

### > Fundamentals of Psychoacoustics

- Perception of Humans
- Masking Effects
- Frequency Ratings (A, B and C)
- Binaural Techniques (Artificial Head)

## Psychoacoustics Parameters & Analysis Techniques

- Loudness
- Sharpness
- Roughness
- Fluctuation Strength

#### Assessment Methods

- Listening Studio
- Subjective Assessment

#### Sound Quality

- Concept Study
- Sound Design Techniques
  - Active Vibration Design
  - Active Sound Design