PROGRAMME

Day 1: 12 July 2010

08.30 Registration and Breakfast
09.30 Welcome Address
09.45 Fundamentals of acoustics
11.45 Tea Braeak
12.00 Sound Quality and its metrics
13.15 A systematic approach to vibro-acoustic refinement
14.30 Lunch
15.30 Overview of fast TPA methods

Day 2: 13 July 2010

08.30 Breakfast
09.00 Best practice and planning for TPA
11.00 Tea Break
11.30 Demo
13.00 What is sound source localization?
14.00 Lunch Break
15.00 What is sound source localization? (Contd..)
15.30 Tea Break
15.45 Demo
16.15 Question and answer
17.15 Valedictory function

WHO SHOULD ATTEND?

This workshop is intended for practicing engineers, analysts, project managers and engineering service providers working in area of automotive design and its evaluation for NVH optimization. It is also intended for engineering students interested in pursuing a career in NVH and control.

REGISTRATION FEES

Category	Registration Fees in Rs.	Service Tax %	Total Fees Rs.
Non-SAEINDIA member	7000/-	10.3%	7721/-
SAEINDIA Member	5000/-		5515/-
SAEINDIA Faculty member	3000/-		3309/-
SAEINDIA Student member	2000/-		2206/-

MODE OF PAYMENT

At Par / Multicity cheque or demand draft in favour of **The Automotive Research Association of India** payable at Pune.

About ARAI

The Automotive Research Association of India (ARAI) is the nodal center for research and development in automotive engineering. The main objectives of ARAI are :

- To carry out sponsored R&D work along with development and certification testing.
- To prepare and harmonize automotive standards.
- To disseminate information and create a forum for knowledge sharing.

Please visit www.araiindia.com for more information.

About LMS International

LMS International is an engineering innovation partner for companies in the automotive, aerospace and other advanced manufacturing industries.LMS enables its customers to get better products faster to market and to turn superior process efficiency to their strategic competitive advantage. LMS delivers a unique combination of 1D & 3D virtual simulation software, mobile and lab testing systems, and engineering services in the areas of structural and modal analysis, motion, ride and handling, noise and vibration, acoustics and durability.

2 Day Workshop on

Fundamentals of Acoustics and Transfer Path Analysis

12-13 July 2010 at ARAI, Pune

Fundamentals of Acoustics and sound Quality and industrial solution applicability of a structured source/path/receiver approach to vehicle acoustics

Jointly Organized by

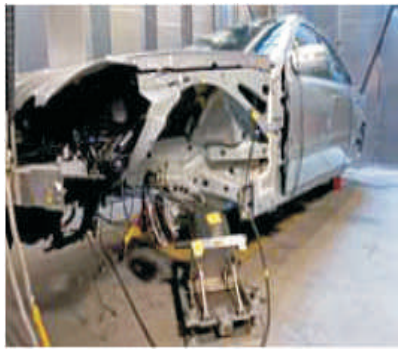
ARAI Progress through Research

LMS ENGINEERING INNOVATION

SAEINDIA Western Section — The Engineering Society For Advancing Mobility Land Sea Air and Space

BACKGROUND & OBJECTIVES

This two day course is intended for all NVH engineers who are eager to learn more about the basics of acoustics but also want to understand how to fundamentally resolve their acoustic problems by using a source/path/receiver model, also know as transfer path analysis. The workshop will address the fundamentals of acoustics and sound quality. Most common automotive metrics will be explained using practical examples, making sure that all participants will have a better knowledge on when to use which metric. In a second part, the source/path/receiver (TPA) will be explained. The principles behind this technique will be explained but also time will be spend on practical issues such as how to measure certain properties. The goal of this session is to make sure that each participant fully understands the power of TPA and how he can use this technique in his applications. In the last part more time will be spend on different source localization tools. Different tools are currently available on the market to localize the noise sources. Each of these methods have their advantages and disadvantages and will be explained, so that the participant will have a good idea at the end of the course on which method is the most appropriate one for his application.



Speakers

Dr Filip Deblauwe: Graduated from University of Cincinnati, USA, with a PhD in Modal analysis. Dr. Deblauwe joined LMS International in 1991 and has been most of the time been product manager for acoustic and vibration (structure and signature) products. Since 2006, Dr. Deblauwe is the Business Development Manager for the NVH Solutions.

Mr. Kumaraswamy S. GraduatedfromCoventry University UK with a Master of Science in Automotive engineering.Through his extensive Consultancy work at automotive OEM's and suppliers, Mr. Kumaraswamy understands perfectly the acoustical and structural needs of the Indian market. At present, Mr. Kumaraswamy holds the position as Application expert at LMS India.

About SAEINDIA

SAEINDIA is a premier professional society that serves the Mobility Engineering Community engaged in design, manufacture and service of self propelled vehicles and systems that move in land, sea, air and space. Its vision is to continuously enrich knowledge base of practitioners in mobility industry and institutions in the service of humanity.
Please visit www.saeindia.org for more information.

Registration Form

2 Day Workshop on

Fundamentals of Acoustics and Transfer Path Analysis

12-13 July 2010 at ARAI, Pune

Name of Participants : _____
_____ _____

SAEINDIA Member No.
(If applicable) : _____
Designation: _____
Name of Organization : _____
_____ _____

Address : _____ _____
_____ _____ _____
_____ _____

Email ID : _____ _____

Land-line Number : _____ ___
Mobile Number : _____ _____

DD Number / Date : _____
Bank / Branch : _____ __

Please fax/email/post the registration form duly filled, on or before 07th July 2009 to:

Mr. Sagar Murugkar
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