

GLOBAL INITIATIVE FOR ACADEMIC NETWORKS



National Coordinating Institute
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

www.gian.iitkgp.ac.in

ACOUSTICS AND INDUSTRIAL NOISE CONTROL

Overview

Globally, the focus is on designing and producing quieter products, whose radiated noise levels satisfy local and international standards. Sound and vibration go hand-in-hand. This one-week lecture course is designed for anyone interested in knowing the basics of noise and vibration, and then applying the acquired knowledge towards noise control. After this course the participants will have a deeper understanding and appreciation of the subject and be confident in designing quieter products, will be able to perform measurements on their own and implement appropriate noise control measures. Lectures will be delivered by internationally renowned faculties from India and the USA. The course will cover the fundamental aspects of sound and vibration as well as state-of-the-art techniques of industrial noise control, with relevant case studies from many engineering sectors. The one week course is directed towards academicians, practising engineers, scientists and students.

The primary objectives of the course are as follows:

- i) Expose participants to the fundamentals of sound and vibration.
- ii) Allow the participants to understand in depth all the rudiments of acoustics, which will allow an understanding of the physics behind industrial noise control.
- iii) Provide exposure to the latest state-of-the-art instrumentation and measurement techniques of noise and vibration.
- iv) Enhance the knowledge of the participants in the related areas of sound quality, human response and active noise control
- v) Present to the participants several case studies in noise control, which will make them confident to do the same themselves.

Module

12th to 16th December, 2016

Number of participants for the course will be limited to fifty.

Who Should Attend

- you are a student/faculty/researcher from the disciplines of Mechanical, Civil, Aerospace and Architecture who will benefit from learning both the fundamental and practical aspects of Acoustics and Industrial Noise Control.
- you are from an industry wanting to develop expertise in implementing noise control in the industrial processes, plant machinery, automobiles, building architecture and design of audio systems.

Fees

The participation fees for taking the course is as follows:

Participants from abroad	:	\$ 500
Industry/ Research Organizations	:	₹ 30000
Academic Institutions, Faculty member	:	₹ 15000
Bonafide students of Academic Institutions	:	₹ 1000 (to be refunded after completion of course)

For industry and research organization sponsoring two or more persons the fees would be ₹ 25000 per participant. The above fee includes all instructional materials and 24x7 free internet facility and guided tour of the state-of-the-art Acoustics and Condition Monitoring Laboratory at the Indian Institute of Technology Kharagpur, details of which can be found at www.iitnoise.com. The participants will be provided with accommodation at Indian Institute of Technology on separate payment basis.

The Faculty



Prof. J. Stuart Bolton is currently a Professor at the Ray W. Herrick Laboratories in the School of Mechanical Engineering at Purdue University, West Lafayette, IN, USA. Professor Bolton maintains an active research program in Noise Control and related disciplines. He is Fellow of both the Acoustical Society of America and the Institute of Noise Control Engineering. His research interests include acoustical materials, sound field visualization, acoustical and structural wave propagation, noise control and signal processing.



Prof. Amiya R. Mohanty is currently a Professor in the Mechanical Engineering Department at the Indian Institute of Technology Kharagpur. Professor Mohanty is a Fellow of the Acoustical Society of India and consultant to many industries in the areas of noise control and machinery condition monitoring. His research interests are in natural materials for noise control, underwater acoustics, automotive NVH, motor current signature analysis, vibration monitoring and signal processing.

Course Co-ordinator

Prof. A. R. Mohanty

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Registration Process

Registration for GIAN courses is not automatic because of the constraints on maximum number of participants allowed to register for a course. In order to register for one or multiple non-overlapping courses, you have to apply online using the following steps:

1. **Create login and password at www.cep.iitkgp.ac.in/gian**
2. **Login and complete the registration form.**
3. **Select courses**
4. **Confirm your application and payment information.**
5. **Pay ₹ 500 (non-refundable) through online payment gateway.**

The course coordinators of the selected courses will go through your application and confirm your selection as a participant one month before the starting date of the courses. Once you are selected you will be informed and requested to pay the full fees through online payment gateway service.

