Southampton Southampton Vibration Research Advanced Course in Noise Control 12-16 September 2011 – Southampton

Sponsored by

Brüel & Kjær *****

Institute of Sound and Vibration Research University of Southampton Highfield Southampton SO171BJ

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Setting the standard in sound and vibration measurement

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Advanced Course in Noise Control

The course

Noise in industry, in the work place, and in the community can potentially degrade quality of life. In extreme cases, exposure to high noise levels can be hazardous. The implementation of effective and economic noise control requires an appreciation of the fundamentals of acoustics and modern techniques for its measurement and characterisation.

This Advanced Course in Noise Control outlines the underlying principles of noise control, examines the character of noise in some key applications, and discusses how noise may be reduced by design or through palliative treatment. The course is divided into three

sections: Basic principles, Techniques, and Applications and Case histories.

There is a three-day core element of the course. This is preceded by an optional two-day refresher course in the principles of vibration and acoustics.

Fees

The course fees are shown on the attached enrolment form. The non-residential fee includes course literature, lunches and refreshments at the University, and a course meal on one evening. However, it does not include accommodation. The residential fee includes accommodation in a University hall of residence, with breakfast and evening meals from Sunday to Thursday inclusive (refresher

course plus advanced course) or from Tuesday to Thursday inclusive (advanced course only).

Attendance at the two-day refresher part only is usually possible on request, although it is not intended as a 'stand alone' course.

Location

The course is held in building 2 on the University of Southampton's main Highfield Campus, just 10 minutes' walk from University accommodation.

Other courses

For information on other short courses in acoustics, vibration and signal processing, please visit our website: www.isvr.soton.ac.uk

Monday 12 September (Refresher Day 1)

08.30-09.00 | Registration

09.00-09.15 | Introduction

09.15-10.15 | Fundamentals of sound propagation | V Humphrey

10.30-11.30 | Basic concepts in vibration | NS Ferguson

11.45–12.45 | Introduction to frequency analysis | J K Hammond

12.45-13.45 | Lunch

13.45-14.45 | Three-dimensional sound fields | PFJoseph

15.00–16.00 | Free and forced vibration | E Rustighi

16.15-17.15 | Analysis of random signals | J K Hammond

Tuesday 13 September (Refresher Day 2)

09.00–10.00 | Human response to vibration | MJ Griffin 10.15–11.15 | Human response to sound | I H Flindell 11.30–12.30 | Analysis of sampled data | J K Hammond 12.30–13.30 | Lunch

2.30-13.30 | LUNCH

13.30–14.30 | Acoustic source models | PF Joseph 14.45–15.45 | Classical vibration control | DJ Thompson

16.00–17.00 | Structural wave motion | NS Ferguson

Wednesday 14 September (Advanced Day 1)

Basic principles

09.00–10.00 | Principles of noise control 1 | PF Joseph

10.15–11.15 | Principles of noise control 2 | PF Joseph

11.30–12.30 | Basic acoustic measurements | KR Holland

12.30-13.30 | Lunch

13.30–14.30 | Vibration control for noise radiation | DJ Thompson

14.45–15.45 | Numerical methods in acoustics | R J Astley

16.00–17.00 | Vibroacoustics | DJThompson

17.15-18.15 | Tour of ISVR

Thursday 15 September (Advanced Day 2):

Techniques

09.00–10.00 | Identifying and ranking origins and radiators of noise | M G Smith

10.15–11.15 | Beamforming and inverse methods | K R Holland

11.30–12.30 | Sound intensity and sound power measurement | PF Joseph

12.30-13.30 | Lunch

13.30–14.30 | Active control of sound | S J Elliott

Applications and case histories

14.45–15.45 | Case studies in noise control | D Rawlinson 16.00–17.00 | Control of road vehicle noise | J Dixon 19.30 | Course dinner

Friday 16 September (Advanced Day 3):

09.00–10.00 | Sound absorbent duct design | M G Smith

10.15–11.15 | Noise from wind turbines | A Mckenzie

11.30–12.30 | Plant noise propagation and propagation in factories | S Dance

12.30-13.30 | Lunch

13.30–14.30 | Control of railway noise | DJ Thompson

14.45–15.45 | Workshop | PF Joseph, DJ Thompson

Enrolment form

Advanced Course 12-16 September	e in Noise Control	
Name		
Job title		
Company		
Address		
Tel	Fax	
Email		
Company VAT Nu	umber	
information plea Privacy Policy The on information to a	e University of Southamptor any third party. The informa ng activities only in accorda	n does not pass tion is used in
Fees	Refresher course plus advanced course	Advanced course only
Non-residential Residential	£1150 \[\int £1350	☐ £1000 ☐ £1200
There is a discoul before 1 July 2011	nt of £100 for application	ns received
☐ I enclose a che 'University of S	eque payable to Southampton' or	
☐ Please invoice	my company	

Signed

Please return this enrolment form as soon as possible and no later than **19 August 2011** to:

Miss J Hazell

ISVR, University of Southampton, Highfield, Southampton, SO₁₇ 1BJ, United Kingdom.

Tel: +44 (0)23 8059 2936 Fax: +44 (0)23 8059 3190 Email: jh2@isvr.soton.ac.uk

Please note that there will be no refund of fees for cancellations received at ISVR less than two weeks before the start of a course. For cancellations received between four weeks and two weeks prior to the start of a course, 50 per cent of the fee will be refunded. Cancellations made by telephone will be accepted if confirmed immediately in writing, Delegate substitutions, however, may be made at any time.