

DAY 1 – Monday, July 14, 2003

	<p>In the morning:</p> <p>Arrival at the Cambridge University</p>
Time	Programme
14:00	<p>Registration</p>
16:00	<p>KEY NOTE LECTURE 1</p> <p>SAMCO Road Show Helmut Wenzel VCE</p> <ul style="list-style-type: none"> ▶ How can monitoring help you ▶ Progress in assessment ▶ Rating of structures ▶ Examples of application ▶ The new hardware generation ▶ The expected software development ▶ International aspects ▶ Ongoing research worldwide
17:00	<p>Welcome Drinks</p>
19:00	<p>Dinner</p>

DAY 2 – Tuesday, July 15, 2003

Time	Programme	
	KEY NOTE LECTURE 2	
9:00	Monitoring and Assessment Helmuth Wenzel VCE <ul style="list-style-type: none"> ▶ What can be monitored ▶ Which approach to take ▶ Current Practice ▶ Assessment tools ▶ Practical aspects 	
10:30	Coffee Break	
	HEALTH MONITORING	ASSESSMENT OF STRUCTURES
11:00	Health Monitoring on Bridges VCE <ul style="list-style-type: none"> ▶ Monitoring of fleets of structures ▶ Condition rating ▶ Damage detection and assessment 	Managing Large Bridge Structures in Scandinavia Per Goltermann RAMBOLL <ul style="list-style-type: none"> ▶ Oresund Link ▶ Storebelt bridge
11.45	Damage Detection in Post-tensioned Bridges VCE <ul style="list-style-type: none"> ▶ Assessment of external cables ▶ How to find the damage ▶ How to assess the bridge 	Structural Testing Alberto Peano ISMES <ul style="list-style-type: none"> ▶ Shaking Table Tests ▶ Dynamic System Identification ▶ Seismic Loading
12:30	Lunch	
	PRACTICE	DAMAGE DETECTION
14:00	Practical Bridge Management Livia Pardi AUTOSTRADE <ul style="list-style-type: none"> ▶ Managing 3000 kilometres of highway ▶ End users point of view 	Damage Detection in Cables Andrea Bergamini & Rouven Christen EMPA <ul style="list-style-type: none"> ▶ Magnetic Flux Leakage Method ▶ Theoretical background ▶ Methodology
15:00	Discussion	Discussion
15:30	Coffee Break	
16:00	Structural Health Monitoring in the USA Emin Aktan Drexel University, USA <ul style="list-style-type: none"> ▶ Research initiatives ▶ Trends ▶ Examples of applications 	
17:00	Discussion	
17:30	Closing Day 2	
19:00	Dinner	
21:00	Optional Talk to Lectures	

DEMONSTRATION (Out door)

DAY 3 – Wednesday, July 16, 2003

Time	Programme	
9:00	KEY NOTE LECTURE 3	
	6th Framework Programme Hans Hartmann Pedersen European Commission <ul style="list-style-type: none"> ▶ General introduction to 6FP ▶ The instruments IPs and NoEs ▶ Results of the first call ▶ Lessons learned for the future calls 	
10:30	Coffee Break	
	INTEGRATED PROJECTS	LARGE TESTING FACILITIES IN EU
11:00	Industry's Point of View Claude Dumoulin BYTP <ul style="list-style-type: none"> ▶ Changes from 5FP to 6FP ▶ Consequences of the new rules ▶ Trends in industry participation 	ELSA - Laboratory of the European Commission's Joint Research Centre Vito Renda IPSC, JRC <ul style="list-style-type: none"> ▶ Research projects supporting EU policies ▶ Basic research for codes & standards
11.45	NEES Steven McCabe NSF-Washington, USA <ul style="list-style-type: none"> ▶ The NEES Programme and facilities ▶ How you can participate 	BRE – Europe's Largest Test Facility David Moore BRE <ul style="list-style-type: none"> ▶ BRE-Cardington Test Facility ▶ Test Examples and Results
12:30	Lunch	
	SUCCESS PROJECTS	TESTING
14:00	System Identification to Monitor Civil Engineering Structures (SIMCES) Guido De Roek KUL <ul style="list-style-type: none"> ▶ The idea of SIMCES ▶ Tests, results, impact on practice 	Materials Research & Testing Werner Rücker BAM <ul style="list-style-type: none"> ▶ Fatigue tests on bridges ▶ Long term monitoring of real structures
15:00	Discussion	Discussion
15:30	Coffee Break	
16:00	Integrated Monitoring and Assessment of Cables (IMAC) Roman Geier VCE <ul style="list-style-type: none"> ▶ Cable stayed bridges ▶ Assessment approach ▶ Monitoring examples 	Non-linear Behaviour of Damaged Structures Guido De Roeck KUL <ul style="list-style-type: none"> ▶ Indicators in time domain ▶ Indicators in frequency domain ▶ Environmental influences
17:00	Discussion	Discussion
17:30	Closing Day 3	
19:00	Dinner	
21:00	Social Event: Punting	

Repetition of DEMONSTRATION of Day 2 (Out door)

DAY 4 – Thursday, July 17, 2003

Time	Programme	
9:00	KEY NOTE LECTURE 4	
	Operational Modal Analysis: A Tool for Structural Health Monitoring Bart Peeters LMS <ul style="list-style-type: none"> ▶ Modal analysis ▶ Stochastic subspace identification ▶ OMA in civil engineering 	
10:30	Coffee Break	
	MONITORING SYSTEMS	RISK AND WHOLE LIFE COSTING
11:00	Structural Health Monitoring in Japan Yozo Fujino University of Tokyo	Whole Life Cost Models for Practical Application Kathryn Bourke BRE
11.45	<ul style="list-style-type: none"> ▶ Research initiatives ▶ Trends ▶ Examples of applications 	Monitoring of Wind Farms Malcolm McGugan RISOE <ul style="list-style-type: none"> ▶ Remote monitoring concepts ▶ Monitoring of turbine blades ▶ Assessment of turbine towers
12:30	Lunch	
	PRACTICAL RISK ASSESSM.	CONTROL
14:00	Classification of Bridges Development of a Compact Monitoring System Roman Geier VCE <ul style="list-style-type: none"> ▶ Criteria for classification ▶ Levels of classification ▶ A simple and robust method 	Application of Control Mechanisms in Engineering Structures Andre Preumont ULB <ul style="list-style-type: none"> ▶ Active damping via IFF ▶ Active isolation via “sky-hook” damper ▶ Semi-active control strategies
15:00	Discussion	Discussion
15:30	Coffee Break	
16:00	Decision Support and Expert Systems Helmut Wenzel VCE <ul style="list-style-type: none"> ▶ Data handling, format & storage ▶ Automatic evaluation ▶ Decision making 	State of the art - Active and Semi-active Seismic Control Fabio Casciati UNIPV <ul style="list-style-type: none"> ▶ Structural control features ▶ Passive structural control concepts ▶ Semi-active and hybrid structural control
17:00	Discussion	Discussion
17:30	Closing Day 4	
19:00	Academy Dinner	

Repetition of DEMONSTRATION of Day 2 (Out door)

DAY 5 – Friday, July 18, 2003

Time	Programme	
	KEY NOTE LECTURE 4	
9:00	E-MOI - European Built Environment Assessment and Structural Health Monitoring Initiative Helmuth Wenzel VCE <ul style="list-style-type: none"> ▶ The future of health monitoring and assessment ▶ The European strategy ▶ Visions for 2010 ▶ Possibilities to participate or benefit 	
10:30	Coffee Break	
	TRENDS	NATURAL HAZARDS
11:00	Sensors and Systems in a Structural Health Monitoring Context Bart Peeters LMS <ul style="list-style-type: none"> ▶ International Practice ▶ Sensor and System Development 	LESS-LOSS Alberto Peano ENEL-HYDRO <ul style="list-style-type: none"> ▶ IP on seismic hazard and landslides ▶ GIS technology ▶ Alert Systems
11.45	Future Trends and Developments in Structural Health Monitoring Helmuth Wenzel VCE <ul style="list-style-type: none"> ▶ Decision support system ▶ Small independent wireless sensors ▶ Very smart solutions 	Building Assessment Rainer Flesch ARSENAL RESEARCH <ul style="list-style-type: none"> ▶ Dynamic Monitoring ▶ Projects and Tools
12:30	Lunch	
	Official Ending	