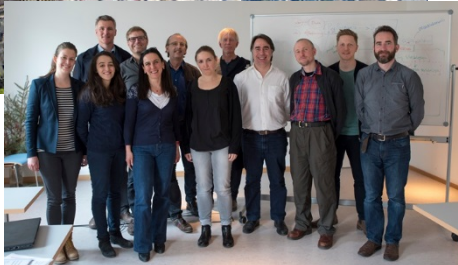






Recent Activities



- 8. Workshop on Categorisation, Technical University of Munich, Germany, 20. to 21. March 2017
- 7. Joint TU 1402, TU 1406, IABSE Workshop on The Value of Structural Health Monitoring for the Reliable Bridge Management. Zagreb, Croatia, 2. March to 3. March 2017.
- 6. Workshop of the COST Action TU1402, Brussels, Belgium, 23. to 24. January 2017

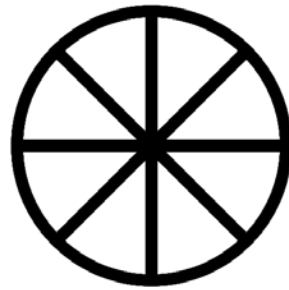
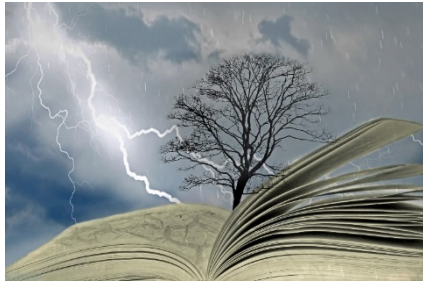


TU1402 Strategy

1. Impact Industry
2. Impact Science
3. Unique Network



TU1402 Strategy: Impact industry



- (1) Stepwise development of a case study portfolio
- (2) Development of teaching activities
- (3) Continuation of the Innovation Committee activities
- (4) Start of the standardisation activities.



TU1402 Strategy: Impact science

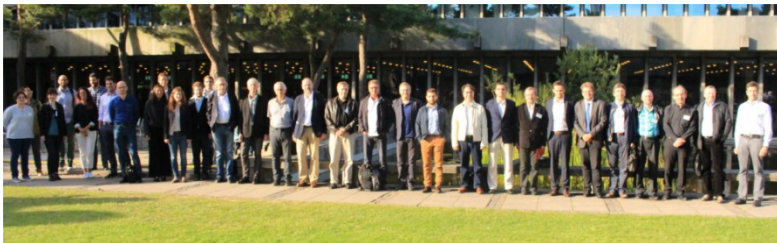


No.	Strategy	System state	Value of Information
1	Fatigue loading	Exposure	$\overline{VoI}_{e_1} = 18\%$
2	Hot spot monitoring	Exposure and constituent damage	$\overline{VoI}_{e_2} = 31\%$
3	System loading monitoring	Exposure	$\overline{VoI}_{e_3} = 0.7\%$

- (1) Organisation of Special Sessions at international conferences in Europe and worldwide,
- (2) Initiation of special journal issues (e.g. in relation to the Special Sessions),
- (3) Research project acquisition



TU1402 Strategy: Unique Network



The TU1402 network will

- (1) be made more visible,
- (2) be extended internationally,
- (3) be actively utilised and
- (4) continuously be developed to include relevant partners.



Work and Budget plan for 05/2017 to 04/2018

- Meetings
 - 9th Workshop, May, 29 and 30, 2017, Trinity College, Dublin, Ireland
 - 10th Workshop, October 2017, ???
 - Steering Committee Meeting
- Dissemination Meetings
 - ICOSAR 2017, Vienna, Austria
 - IWSHM 2017, Stanford, USA
- 6 STSMs
- Training School

We will support and adjust to any good ideas!



WG6 Activities

COST Action TU1402: Quantifying the Value of Structural Health Monitoring

SHM ... just value it

Structural Health Monitoring is good. But it can be much better. We build upon decades of Structural Health Monitoring (SHM), structural risk and reliability research and development grown into a comprehensive research community and an important part of today's infrastructure engineering. Our network incorporates a tremendous knowledge about SHM technologies, SHM data analysis, structural performance and deterioration as well as infrastructure operation. We want to enhance the benefit of SHM by novel utilization of applied decision analysis on how to assess the value of SHM – even before it is implemented. We know already that the value of SHM can be tremendous. We just have to quantify it. Knowing the value of SHM, we can improve the decision basis for design, operation and life-cycle integrity management of structures and facilitate more cost efficient, reliable and safe strategies for maintaining and developing the built environment to the benefit of society.

Upcoming COST Action TU1402 workshop

In March 2012, the 8th COST Action TU1402 workshop will take place. The workshop will take place from 25 to 28 March 2012 in Munich, Germany.

cost action tu 1402
Quantifying the Value of Structural Health Monitoring

ABOUT THIS GROUP

The COST Action TU1402 aims to enhance the benefit of structural health monitoring (SHM) by novel utilization of applied decision analysis on how to assess the value of SHM – even before it is implemented. We know already that the value of SHM can be tremendous. We just have to quantify it. Knowing the value of SHM, we can improve the decision basis for design, operation and life-cycle integrity management of structures and facilitate more cost efficient, reliable and safe strategies for maintaining and developing the built environment to the benefit of society.

The purpose of this group is to create a platform for stakeholders involved in COST TU1402 - Quantifying the Value of Structural Health Monitoring. Welcome to our website www.cost.eu.

COST (European Cooperation in Science and Technology) is a pan-European intergovernmental framework, its mission is to create breakthrough scientific and technological developments leading to new concepts and Europe's research and innovation capacities. [Show more](#)

MEMBERS

3 members



COST Action TU1402: Key deliverables

1. Dedicated dissemination activities.
 - E.g.: workshops, special sessions at international conferences, training courses, scientific missions
2. A well-developed homepage.
 - Activity documentation with videos, presentations and reports
3. A library of tools and algorithms.
4. A chapter to the Probabilistic Model Code of the JCSS.
 - Documentation the scientific framework and approaches
5. A guideline on the quantification of the value and optimization of SHM.
 - Detailed examples
 - For practising engineers



COST Action TU1402: Scientific Program

Tasks		Year															
		1				2				3				4			
		Quarter				Quarter				Quarter				Quarter			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Task 1: Theoretical Framework																	
a	Clarification of the theory	■	■	■	■												
b	Formulation of the theory for applications			■	■	■	■	■									
c	Communication of the theory							■	■	■							
M1	Dissemination									■							
Task 2: SHM Strategies and Structural Performance																	
a	SHM and structural performance categorisation	■	■	■	■												
b	SHM information modelling platform			■	■	■	■	■									
M2	Dissemination									■							
Task 3: Methods and Tools																	
a	Databases and modelling toolboxes for engineers and researchers							■	■	■	■						
b	Advancement of algorithms for efficient computation							■	■	■	■	■					
M3	Dissemination											■					

We are here



COST Action TU1402: Scientific Program

Tasks		Year															
		1				2				3				4			
		Quarter				Quarter				Quarter				Quarter			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Task 4: Case Studies Portfolio																	
a	Selection of case studies					■	■	■	■								
b	Case study calculation and documentation									■	■	■	■				
M4	Dissemination													■	■	■	■
Task 5: Development of Guidelines																	
a	Chapter of JCSS Probabilistic Model Code (PMC)													■	■	■	■
b	Guideline on the quantification of the value and optimization of SHM													■	■	■	■
M5	Dissemination of guidelines																

We are here 