COST TU1402: Quantifying the Value of Structural Health Monitoring



3rd Workshop Opening Presentation

Sebastian Thöns



2nd Workshop, Istanbul, Turkey

Achievements:

- Presentation of flowcharts, principal procedure, test cases, first factsheets
- Questionnaire
- Plan for further development of factsheets
- STSMs started
 - Dr Maria Giovanna Masciotta: The Value of SHM for the Structural Behaviour of Masonry Structures under Varying Environmental Effects
 - Ms Simona Bogoevska: A novel bi-component Structural Health Monitoring strategy for deriving global models of operational Wind Turbines

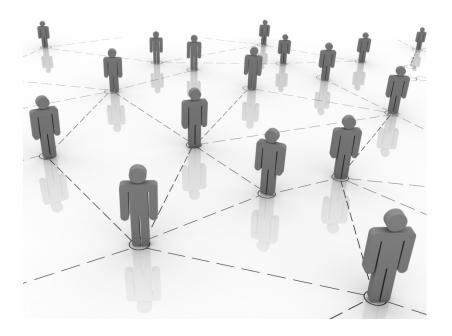


2nd Workshop, Istanbul, Turkey

- 44 participants (researchers, structural engineers, SHM engineers and infrastructure operators and owners) from 22 countries
- Presentations, audio and videos records (partly) of plenary sessions online (http://www.cost-tu1402.eu)
 - Username: COST_TU1402_user
 - Password: KRuw6k



Network and budget



- 122 participants from 27 countries
- Budget approx. constant



COST Action TU1402: Scientific Program

		Year																
		2015					20)16	3	2017				2018				
	Tasks	Quarter					Quarter				Quarter				Quarter			
		I	11	III	IV	I	II	Ш	IV	I	II	III I\	/ I	1				
Task	1: Theoretical Framework	•					•											
а	Clarification of the theory																	
b	Formulation of theory for applications																	
С	Communication of the theory																	
M1	Dissemination																	
Task	2: SHM Strategies and Structural Performance																	
а	SHM and structural performance Categorisation																	
b	SHM information and structural performance modelling platform																	
M2	Dissemination																	
Task	3: Methods and Tools																	
_	Databases and modelling toolboxes for engineers and																	
а	researchers																	
b	Advancement of algorithms for efficient computation																	
M3	Dissemination																	



COST Action TU1402: Scientific Program

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				20)17		2018													
	Tasks	(Quarter				Quarter			Quart			Quarter			arte	۶r	Qı	arte	ər
		I	II	ш	IV	I	II	III	N	I	1	Ш	IV	1	III	N				
Task	4: Case Studies Portfolio															P				
а	Selection of case studies																			
b	Case study calculation and documentation																			
M4	Dissemination																			
Task	5: Development of Guidelines																			
а	Chapter of JCSS Probabilistic Model Code (PMC)																			
b	Guideline on the quantification of the value and optimization of SHM																			
M5	Dissemination of guidelines																			
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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: Reporting deadlines

- Intermediate Report 1: May 2016 (Month 18)
- Intermediate Report 2: Month 36
- Final Report: Month 48



Important future activities

- 1. Conference and COST TU1402 Workshop: Materials, Systems and Structures in Civil Engineering (MSSCE 2016)
 - 21 to 24 August 2016, Lyngby, Copenhagen, Denmark
- Conference with session "Health monitoring and structural performance assessment": European Workshop on Structural Health Monitoring (EWSHM 2016)
 - 5 to 8 July 2016 in Bilbao, Spain
- Conference with session "Value of Information in Structural Health Monitoring": 12th International Conference on Structural Safety & Reliability (ICOSSAR 2017)
 - 6 to 10 August, 2017 in Vienna, Austria



Aims and working foci of the 3rd Workshop

Aims:

- 1. Presentation and the consolidation of factsheets
- 2. Structuring / further development of factsheets
- 3. Preparation of the intermediate report

Deliverables of 3rd Workshop

All participants

- 1. Workshop report
- 2. Presentations, audio and video recording on website
- 3. Plan for further activities

SC and MC

- 1. Draft Work and Budget Plan for 05/2016 to 04/2017
- 2. Outline for 1st Intermediate Report including a work plan



COST TU1402: Quantifying the Value of Structural Health Monitoring

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DECISION THEOR

Thank you for your attention.

Let us have a good workshop.