

# 3<sup>rd</sup> COST TU1402 Workshop

## COST Action TU1402: Quantifying the Value of Structural Health Monitoring

## 3<sup>rd</sup> Workshop, 4<sup>th</sup> Management Committee Meeting, 5<sup>th</sup> Steering Committee Meeting

## **Objectives**

The objectives of the 3<sup>rd</sup> Workshop are (1) the presentation and the consolidation of factsheets and (2) the preparation of the intermediate report.

### Tasks

According to the COST TU1402 MoU, the working foci are:

- For WG1: Communication of theory
- For WG2: Structural Health Monitoring and structural performance categorisation and modelling platform
- For WG3: Databases and modelling toolboxes

The preparation of the first intermediate report will be initiated and tasks are distributed.

## Organisation

The workshop is organised in mainly consecutive plenum sessions. All Action sessions will be audio and video recorded. The key presentations and contributions will be uploaded and disseminated through the Action website. The fact sheets will be compiled to a workshop report.

Dates 14. and 15. March 2016

### Venue

BarcelonaTech Escola Tecnica Superior d'Enginyers de Camins, Canals i Ports Carrer de Jordi Girona, 1, 08034 Barcelona, Spain Barcelona, Spain

Please see also the last page: "How to get to UPC- Campus Nord".

#### Accomodation

Please have a look to: <u>Accomodation UPC - Barcelona</u> (http://www.upc.edu/sri/congress/accomodation-upc-barcelonatech).

## **Local Organisers**

Prof. Joan Ramon Casas (joan.ramon.casas@upc.edu)

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## Agenda

## DAY 1: Monday, 14.03.2016

09:00-09:30	Registration and welcome reception		
09:30-09:45	Workshop opening		
09:45-10:00	Joan Ramon Casas: Presentation of COST Action TU 1406 on "Quality specifications for roadway bridges, standardization at a European level (BridgeSpec)"		
10:00-10:30	General Session, Chair: Sebastian Thöns		
	Authors/Speakers	Topic of presentation	
	Maria Pina Limongelli	Glossary	
	Helder Sousa	Innovation Committee Recommendations	
	Helmut Wenzel	Ranking of objectives from clients	
	(	Coffee Break	
11:00-12:30	WG 1 – Theoretical Framework, Chair: Dimitri Val		
	Authors	Topic of presentation	
	Joan Hee Roldsgaard, Daniel Honfi	System representation	
	Henning Brüske, S. Thöns	Domains of Vol in SHM	
	Daniele Zonta	Why should I waste my money on monitoring?	
	Robby Caspeele, Dimitri Val, Cheng Xing	Classes of decision analysis	
	Robby Caspeele, Dimitri Val, Cheng Xing	Pre-posterior formulations	
		Discussion	
	<u>ا</u>	Lunch Break	



## DAY 1: Monday, 14.03.2016 cont.

14:00-16:00	WG 2 – SHM Strategies and Structural Performance, Chairs: Marios Chryssanthopoulos, Geert Lombaert, Michael Döhler		
	Authors	Topic of presentation	
	Miroslav Sykora and Jana Markova	Assessment of cooling towers and industrial chimneys based on monitoring	
	Luis Oliveira Santos and António Castro	Structural monitoring of dams	
	Rafał Szydłowski, Mariusz Maślak, Michał Pazdanowski	Monitoring of the prestressed concrete slabs with unbonded tendons during erection and in service	
	Maria Giovanna Masciotta, José A.C. Matos, Luís F. Ramos	The value of SHM for the structural behaviour of masonry structures under varying environmental effects	
	Krzysztof Radzicki, Stephane Bonelli	Thermal monitoring of dams and levees	
	W.M.G. Courage, G.T. Luiten, W.H.A. Peelen, A.J. Bigaj van Vliet	Smart Structures for Smart Maintenance	
	Discussion		
	Со	ffee Break	
16:30-18:00	Steering Committee meeting		
20:00	Workshop Dinner: EL CANGREJO LOCO, Moll de Gregal, 29-30 Port Olímpic 08005 Barcelona, <u>www.elcangrejoloco.com</u>		

## DAY 2: Tuesday, 15.03.2016

09:00-10:30	WG 2 – SHM and Structural Performance cont., Chairs: Marios Chryssanthopoulos, Geert Lombaert, Michael Döhler		
	Piotr Omenzetter, Maria Pina Limongelli, Serdar Soyoz, Ufuk Yazgan	Towards understanding and quantifying the value of SHM and inspection data for seismic risk management of buildings	
	Alfred Strauss, Ana Mandic, Helder Sousa	Performance indicators for bridges	
	Aleš Žnidarič, Maja Kreslin, Jan Kalin	Weigh-in-motion and traffic load monitoring	
	Sebastian Thöns, Simona Miraglia	Classification	
	Discussion		
	Coffee Break		

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## DAY 2: Tuesday, 15.03.2016 cont.

11:00-12:30	WG 3 – Methods and Tools, Chairs: Daniel Straub, Eleni Chatzi				
	Álvaro Cunha, Elsa Caetano, Carlos Moutinho, Filipe Magalhães	ViBest_SHM – A Digital Data Repository for Structural Health Monitoring			
	Bernt J. Leira	Two Examples of Reliability Updating Based on Monitoring of Structural Response Parameters			
	Maria Pina Limongelli, Eleni Chatzi, Michael Döhler, Geert Lombaert	Towards the extraction of vibration-based damage indicators			
	Casciati F., Casciati S.	Elaborations from an experimental campaign on a timber footbridge			
	Discussion				
	Lunch Break				
14:00-14:30	Discussion and Conclusion				
	Coffee Break				
15:00-16:00	15:00-16:00 Management Committee Meeting				

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#### How to get to UPC- Campus Nord

#### From the City Centre

Campus Nord of Universitat Politècnica de Catalunya is located at the North-West corner of the city, at the end of the Green Line (L3) of the underground. In order to reach the Campus by public transport, it is advisable to use the underground. There are two stations near to the Campus, "Zona Universitària" and "Palau Reial", both at L3. Once there, please use the <u>Location map</u> to arrive in the Campus.

#### From The Airport

#### By Taxi

Barcelona taxis (yellow & black) are available at the arrival terminals. A taxi ride to Campus Nord costs around  $25 \notin$  (ask in advance the taxi driver if you plan to pay with credit card)

#### By Train

Airport Station: The train station is connected to Terminal T2 through a footbridge placed between terminals T2A and T2B. From Terminal T1 get the shutle bus (free service) to Terminal T2

Downtown stations: Main stations are Barcelona Sants and Barcelona Plaça Catalunya. Once there you may take Metro line L3 to "Palau Reial" or "Zona Universitària"

Timetable: From Barcelona Plaça de Catalunya 05:39 to 22:11 every 30 minutes. From Barcelona Sants 05:43 to 22:16 every 30 minutes. From the Airport 06:13 to 23:40 every 30 minutes

Tickets are purchased at the stations. A single ticket costs 3€

#### By Bus (Aerobus)

Airport stops: Bus stops at Terminal T1 and T2 (A, B, C)

Downtown stops: This line ends at Plaça Catalunya (city center). Once there, you may take L3 of the underground to "Palau Reial" or "Zona Universitaria" stations.

Timetable: From Plaça Catalunya 05:00 to 00:30 every 10 minutes. From the Airport 06:05 to 01:05 every 10 minutes

Tickets are purchased in the bus A return ticket costs 7,30€