

30 May to 3 June 2016

DEutschland & GRIEchenland Lab: Hybrid and Virtual Experimentation
for Infrastructure Lifecycle Maintenance and Natural Hazard Resilience



*"Recent developments in
Structural Health Monitoring
for a Resilient Infrastructure"*

Sithonia, Chalkidiki, Greece
Monday 30 May to Friday 3 June, 2016
Anthemous Hotel Conference Hall



Workshop Program



ΑΡΙΣΤΟΤΕΛΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΘΕΣΣΑΛΟΝΙΚΗΣ

Bauhaus-
Universität
Weimar



30 May to 3 June 2016

Monday 30 May

Participants Arrival: Invited Speakers, BUW Personnel and Students
Accommodation in Thessaloniki

Tuesday 31 May

08:30 in the morning – Meeting point *The White Tower of Thessaloniki*
08:45-10:30 **Departure by bus from Thessaloniki city center to the Venue**
10:30-12:30 **Accommodation arrangements**
12:30-12:45 **Welcome Address**

Assoc. Prof. Anastasios Sextos

Aristotle University of Thessaloniki, Greece & University of Bristol, UK

Prof. George Manolis

Aristotle University of Thessaloniki, Greece

Prof. Carsten Koenke

Bauhaus-Universität Weimar, Germany

Assoc. Prof. Volkmar Zabel

Bauhaus-Universität Weimar, Germany

Session 1: Structural Health Monitoring for a Resilient Highway Infrastructure I

Moderators: Prof. G. D. Manolis, Assoc. Prof. V. Zabel

12:45 – 13:30 ***Structural Health Monitoring of Highway Bridges: Advancements, Challenges and Applications***

Prof. H. Wenzel (Wenzel Consulting Engineers GmbH, University of Natural Resources and Life Sciences, Vienna, Austria)

13:30 – 13:50 ***Resilience-based Assessment of Highway Networks***

Assoc. Prof. A. Sextos (Aristotle University of Thessaloniki, Greece & University of Bristol, UK)

13:50 - 14:10 ***Structural health monitoring applications for bridge maintenance***

Dr. P. Panetsos (Head of Bridge Maintenance and Structural Health Monitoring Egnatia Odos S.A., Greece)

14:10 - 14:20 ***Discussion***

14:20 – 14:50 ***Coffee Break - Light lunch***

Session 2: Structural Health Monitoring for a Resilient Highway Infrastructure II

Moderators: Prof. F. Wuttke, Prof. G.C. Manos

14:50 - 15:10 *Construction progress of Ionia Odos*

Dr. K. Faidas, Dr. A. Simopoulos
(Head of Technical Projects, Nea Odos S.A., Greece)

15:10 – 15:30 *Construction progress of Aegean Motorway*

Dr. K. Kalogirou, Dr. D. Nikolaidis
(Head of Technical Projects, Aegean Motorway S.A., Greece)

15:30 - 16:00 *Instrumentation and SHM of the Chalkida Bridge*

Dr. Ch. Karakostas, Dr. V. Lekidis,
(Research Directors, Earthquake Planning and Protection Org. EPPO-ITSAK, Greece)
Assoc. Prof. A. Sextos (Aristotle University of Thessaloniki, Greece & University of Bristol, UK)

16:00 – 16:30 *In-situ testing of a bridge pier model at the Volvi European Test Site, Parts I and II*

Em. Prof. G. Manos, Dr. K. Katakalos
(Aristotle University of Thessaloniki, Greece)

16:30 – 16:50 *Modal identification and model updating of Metsovo bridge*

Dr. K. Argyris and Prof. C. Papadimitriou (University of Thessaly, Volos, Greece)

16:50 - 17:00 *Discussion*

19:00 – 20:00 *Dinner*

Wednesday 1 June

Session 3: Reliability-based Life Cycle Assessment of Critical Structures

Moderators: Prof. C. Koenke, Assoc. Prof. A. Sextos

09:30 – 10:00 *Structural Health Monitoring of Energy and Industrial Facilities*

Prof. H. Wenzel
(Wenzel Consulting Engineers GmbH, University of Natural Resources and Life Sciences, Vienna, Austria)

10:00 – 10:20 *Simulation of controlled demolition of guyed antenna masts*

Ph.D Candidate A.K. Habtemariam (Bauhaus University Weimar, Germany)

10:20 – 10:40 *The Global Earthquake Model guidelines for seismic vulnerability assessment*

Assist. Prof. D. Vamvatsikos (National Technical University of Athens, Greece)

10:40 – 11:00 *Nonlinear stochastic analysis of structures with spatially variable non-Gaussian system properties*

Assist. Prof. M. Fragiadakis (National Technical University of Athens, Greece)

11:00 – 11:20 *Innovative methods for in-situ assessment of soil properties for the risk assessment of critical structures*

Prof. F. Wuttke and Ph.D Candidate B. Kaffle (University of Kiel, Germany)

11:20 – 11:40 *Reliability assessment of uncertain high-speed railway bridges*
Prof. C. Adam (University of Innsbruck, Austria)

11:40 - 11:50 *Discussion*

11:50 – 12:40 *Coffee Break*

Session 4: Structural Health Monitoring and Dynamic Testing

Moderators: Assoc. Prof. V. Zabel, Assist. Prof. T. Makarios

12:40 – 13:00 *Monitoring of telecommunication towers to support life cycle assessment. Case studies*

Assoc. Prof. V Zabel (Bauhaus-Universität Weimar, Germany)

13:00 – 13:20 *Embedded models in wireless sensor networks for structural health monitoring*

Ph.D Candidate K. Dragos (Bauhaus University Weimar, Germany)

13:20 – 13:40 *Model updating of a bridge-foundation-soil system based on ambient vibration data*

Ph.D Candidate P. Faraonis (Aristotle University of Thessaloniki, Greece)

13:40 – 14:00 *Dynamic Testing of Seismically Isolated Buildings*

Dr. A. Markou (Aristotle University of Thessaloniki, Greece) and
Prof. G. Oliveto (University of Catania, Italy)

14:00 - 14:10 *Discussion*

14:10 – 15:00 *Coffee Break - Light lunch*

Session 5: Student Presentations

15:00 - 17:30 *Four Student Groups followed by a 30 min Discussion*

19:00 – 20:00 *Dinner*

Thursday 2 June

08:30 **Bus departure from Anthemus Sea Hotel**

09:00 – 17:00 **Sea Cruise to Mount Athos**

(Bus to and from the Ormos Panagias port, boat trip, lunch included)

19:00 – 20:00 *Dinner*

Friday 3 June

09:00 **Departure from Anthemus Hotel Chalkidiki**

10:30 **Arrival at Makedonia Airport**

11:00 **Arrival at Thessaloniki city center**

Contact

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