

Hybrid (physical-virtual real-time) Workshop in "Innovative Seismic Protection of Structural Elements and Structures with Novel Materials"

Friday 24th of February
Civil Engineering Department DUTH
Conference Center
Xanthi, Greece

Workshop Program

Invited Presentations Friday 24/2/2023

Chairs of the sessions

A. 9:00-10:00 A. Ilki, C. Chalioris, T. Rousakis, T. Makrogiannopoulos, T. Gaintatzis, E. Kaloudaki, E. Chaitas

A. 10:20 – 11:20 A. Kwiecien, D. Lau, E. Golias, E. Siakas, D. Kaliabakas, E. Chaitas

A. 11:40 – 12:40 K. Śliwa-Wieczorek, P. Spyridis, K.E. Bantilas, E. Anagnostou, E. Efthimiou, M. Kalivas

A. 13:10 – 13:30 A. Ilki, M. Di Ludovico, C. Del Vecchio, T. Rousakis, A. Yfantidou, O. Karalagia, M. Kalivas

B. 10:20 – 11:20 J. Jiang, M.J. Munir, D. Bountas, E. Nestoroudi, M. Matsala

B. 11:40 – 12:40 B. Azinovic, V.K Kytinou, M. Papasimakopoulou, V. Michail

B. 13:10 – 13:30 W. Derkowski, T. Fanaradeli, C. Mpampi, Z. Xatziparaskeva

C. 10:20 – 11:20 A. Viskovic, S. Tastani, K.E. Bantilas, N. Papadopoulos, K. Kotopoulou, E. Ziara

C. 11:40 – 12:40 S. Kavitha, K. Sideris, M. Naoum, G.M. Sapidis, I. Bounartzis, A. Christoforidis

C. 13:10 – 13:30 Y.F. Wu, M Falara, P.C. Lazaridis, H. Bougiouklou, M. Karagianni, S. Alvanou

D. 10:20 – 11:20 A. Prota, C. Del Vecchio, N. Klimis, A.K. Thomoglou, C. Kiriazakis, P. Theodosiou

D. 11:40 – 12:40 N. Aggelousis, G. Giamartzis, R. Daniellian, M. Papageorgiou, E. Chaitas

E. 10:20 -11:20 S. Valkaniotis, I. Kagalou, K. Papatheodorou, A. Balaskas, A. Spathara, M. Kalivas

*E. 11:40-12:55 A. Ilki, T. Rousakis, A.Zapris, V. Vanian, M. Karabini,
A. Spathara, E. Kaloudaki, A. T. Akyıldız, P. Xystris*

Session A

8:30 – 9:00 A Welcome

9:00 – 9:20 A

Prof. A. Ilki "A brief outline of February 6, 2023 Earthquakes (M7.7-M.7.6) in Turkey with a focus on performance/failure of structures", Civil Engineering Faculty, Istanbul Technical University (ITU), Turkey

9:20 – 9:40 A

T. Makrogiannopoulos, E. Nestoroudi, K. Kotopoulou, C. Kiriazakis (director, teachers), "I deal with the earthquake with readiness and fun", 4th Primary school of Xanthi, Greece

9:40 – 10:00 A

Prof. A. Kwiecien "Advanced features of polyurethanes constructing seismic protection systems of PUFJ and FRPU", Cracow University of Technology, Faculty of Civil Engineering (CUT), Poland

10:00 – 10:20 Break

10:20 – 10:40 Parallel sessions A, B, C, D, E

10:20 – 10:40 A

Prof. A. Kwiecien "Application of PUFJ and FRPU systems and their efficiency under dynamic excitations", Cracow University of Technology, Faculty of Civil Engineering (CUT), Poland

10:20 – 10:40 B

Assoc Prof. J. Jiang, "Prediction on stress-strain behavior of FRP-confined concrete with the passive confinement-based 3D constitutive model", Department of Disaster Mitigation for Structures, College of Civil Engineering, Tongji University, Shanghai, China

10:20 – 10:40 C

Assist. Prof. I. Kavvadias "Seismic performance of structures: Lessons learned from the 2014 Cephalonia earthquake sequences", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

10:20 – 10:40 D

Dr. A.K. Thomoglou, T.C. Rousakis, C.E. Chalioris, "Upgrading seismic performance of masonry structures with innovative strengthening system", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

10:20-10:35 E

Dr S. Valkaniotis "Ground surface displacement measured by imaging geodesy and

rupture kinematic model of the 2023 M7.7 & M7.6 earthquakes in Türkiye - Syria".
Department of Civil Engineering, Democritus University of Thrace,
svalkani@civil.duth.gr

10:40 – 11:00 Parallel sessions A, B, C, D, E

10:40 – 11:00 A

E. Siakas, A. Yfantidou, C. Mpampi, M. Karagianni, R. Daniellian, A. Spathara, H. Bougiouklou (director, teachers), "I am not afraid of the earthquake when I know how to act", 3rd Primary school of Xanthi, Greece

10:40 – 11:00 B

Prof. YF. Wu, Dr. M.J. Munir, Dr. S. Kazmi "Increasing strength of concrete containing rubber particles through compressed casting", Guangdong Provincial Key Laboratory of Durability for Marine Civil Engineering, Shenzhen University, Shenzhen, 518060, China and School of Engineering, RMIT University, 376-392 Swanston St, Melbourne, Victoria, 3001, Australia

10:40 – 11:00 C

Dr. K. Bantilas, "Energy-dissipative seismic kinematic isolation of building structures: Dynamics and seismic performance". Civil Engineering Department, Democritus University of Thrace (DUTH), Greece.

10:40 – 11:00 D

Zapris A.G, Kytinou V.K, Chalioris C.E., "Experimental Investigation and Novel Techniques for Rehabilitation of RC Structural Elements using FRPs". Civil Engineering Department, Democritus University of Thrace (DUTH), Greece.

10:35-10:50 E

Prof I. Kagalou, Ch. Akratos, D. Latinopoulos, "Strengthening the water management practices in Eastern Macedonian - Thrace Region through the development of innovative technologies and improvement of research infrastructures : The Eye4water project", Section of Hydraulics, Dept. of Civil Engineering, DUTH

10:50-11:05 E

Prof. K. Papatheodorou "Improving Earthquake Resilience with Decision Supporting Systems and Education-the REDACt project", Surveying & Geoinformatics Engineering Dept, International Hellenic University

11:00 – 11:20 Parallel sessions A, B, C, D, E

11:00 – 11:20 A

Assoc. Prof. D. Lau, "Strengthening cementitious composites using boron nitride nanosheets", Department of Architecture and Civil Engineering, City University of Hong Kong (CityU), Hong Kong.

11:00 – 11:20 B

D. Bountas, "RiskAC team of IT, Software and Hardware", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

11:00 – 11:20 C

D. Nikolaidis, S. Tastani, "Historical Structures: essential attributes of a comprehensive assessment: non-destructive evaluation techniques to reveal information about technologies and details numerical investigation of the structure resilience to seismic hazards (Elassona Mw=6.3 R, 2021)", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

11:00 – 11:20 D

Prof. N. Klimis, "The Risk and Resilient Assessment Center", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

link: <https://www.facebook.com/riskacDUTH/>



11:05-11:20 E

A.C. Mpalaskas, D.G. Aggelis, T.E. Matikas, "Monitoring the fracture behavior of epoxy resin repaired fiber reinforced concrete specimens by acoustic emission", Department of Materials Science and Engineering, University of Ioannina, Greece Department Mechanics of Materials and Constructions, Vrije Universiteit Brussel (VUB) Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

11:20 – 11:40 Break

11:40 – 12:00 Parallel sessions A, B, C, D, E

11:40 – 12:00 A

K. Śliwa-Wieczorek, "PUFJ (PolyUrethane Flexible Joints) as an innovative polyurethane system for structural and non structural bonding of timber elements. Impact of elevated temperature in the range from 20°C to 80°C", Cracow University of Technology, Faculty of Civil Engineering (CUT), Poland

11:40 – 12:00 B

Assoc. Prof. C. Malaga-Chuquitaype, "Controlled Rocking Timber Walls for Seismic Protection", Department of Civil and Environmental Engineering, Imperial College London, UK

11:40 – 12:00 C

G.M. Sapidis, C.E. Chalioris, M.C. Naoum, N.A. Papadopoulos, E. Golias, G.C. Karayannis, "Application of novel smart materials to diagnosis seismic damage of critical reinforced concrete members", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

11:40 – 12:00 D

N. Aggelousis, Professor of Biomechanics "Biomechanics of human postural control against external perturbations"

11:40 – 11:55 E

T. Rousakis, "What to do before, during and after the severe earthquake we expect in

order to advance community resilience and save more human lives? ", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

12:00 – 12:20 Parallel sessions A, B, C, D, E

12:00 – 12:20 A

E. Efthimiou, M. Papasimakopoulou, I. Bounartzis (director, teachers), "Disaster masters", 14th Primary school of Xanthi, Greece

12:00 – 12:20 B

Dr. B. Azinovic, "Innovative solutions for cross laminated timber (CLT) structures – seismic design", Slovenian National Building and Civil Engineering Institute; Section for timber Structures (ZAG).

12:00 – 12:20 C

K.K. Sideris, E. Manikas and A. Michalakopoulos, "Effectiveness of different repair materials and methods used for the repair of chloride corroded reinforced concrete structures", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

12:00 – 12:20 D

G. Giarmatzis, Post-doc researcher "Musculoskeletal modelling of human body response to external perturbations"

11:55 – 12:10 E

Vanian, T. Rousakis, "Explicit Dynamics Pushover Analysis of Infilled RC Frames Protected with PU Seismic Joints – Effects of Infills and of Joint width", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

12:10 – 12:25 E

A. T. Akyıldız, "Seismic Protection of the Infilled Structures with Polymer Flexible Joints: Numerical and Analytical Investigation"

12:20 – 12:40 Parallel Sessions A, B, C, D, E

12:20 – 12:40 A

Prof. P. Spyridis, "Conceptualisation of a modular shape memory alloy for rapid minimally invasive strengthening of concrete structures", Architektur und Bauingenieurwesen, TU Dortmund University, Dortmund, Germany

12:20 – 12:40 B

Prof. A. Viskovic, "Use of timber elements for Reinforced Concrete buildings seismic retrofitting and comfort rehabilitation", Engineering and Geological Department, Gabriele D'Annunzio University of Chieti-Pescara, Italy

12:20 – 12:40 C

Assoc. Prof. Kavitha, "Bamboo the green gold-A Resilient material for earthquake resistant structures", Department of Civil Engineering, Dr.Ambedkar Institute of technology, Bangalore,Karnataka,India.

12:20 – 12:40 D

T. Fanaradelli, Post-doc researcher "Finite element method for biomechanics research on human body loading during external perturbations"

12:25 – 12:40 E

M. Karabini, T. Rousakis, E. Goliias, C. Karayannis, "Behavior of RC Beam–Column Joints Strengthened with X-shaped ropes Under cyclic loading"

12:40-12:55 E

P. Xystris, K. Xystri, O. Kourkoulos, I. Protonotarios, "Non-Destructive Concrete Testing Technologies & Instrumentation" NEOTEK <https://neotek.gr/> **Sponsor**

12:40 – 13:10 Break

13:10 – 13:30 Parallel Sessions A, B, C

13:10 – 13:30 A

Prof. Ciro Del Vecchio, Prof. Marco Di Ludovico, Prof. Andrea Prota, "Innovative intervention techniques in seismic protection of RC structures", Dept. of Structures for Engineering and Architecture, University of Napoli Federico II, Napoli, Italy

13:10 – 13:30 B

Prof W. Derkowski, "Experiences of Linnaeus University in Sweden in the field of timber-concrete structures", Linnaeus University, Sweden

13:10 – 13:30 C

Dr. Maria Falara, "Enhanced strength and post-crack load carrying capacity of smart multi-scale reinforced cementitious materials", Civil Engineering Department, Democritus University of Thrace (DUTH), Greece

13:30 – 13:40 Break

13:40 – 14:00 A

Discussion and Closing of the workshop – Conclusions

The link to the welcome lobby:

https://teams.microsoft.com/l/meetup-join/19:meeting_YmI5NjMxZTUtYmQzNy00YzRkLWFiOTgtNDYzM2VmNmUyZmYy@thread.v2/0?context=%7B%22id%22:%228035113d-c2cd-41bd-b069-0815370690c7%22,%22Oid%22:%225d18600b-afd9-4c4a-9584-a4571fc55af5%22%7D

The short link to the welcome lobby:

<https://msteams.link/DA9F>

Links for the rooms:

A

<https://msteams.link/32KN>

B

<https://msteams.link/9XT5>

C

<https://msteams.link/4OE0>

D

<https://msteams.link/MTL1>

E

<https://msteams.link/H282>

The Workshop page on LinkedIn:

<https://www.linkedin.com/events/workshopininnovativeiseismicprot7031406133583982592/>