***2nd announcement /*   3rd Hybrid (physical-virtual  real-time) Workshop     in     "Innovative Seismic Protection** **and Structural/Community Resilience"     Friday 28th of February 2025,      place: Civil Engineering Department, Democritus University of Thrace (DUTh), Conference Center, Xanthi, Greece.**

***Link for real-time announcements during the Workshop***

***https://www.linkedin.com/events/3rdws-innovativeseismicprotecti7298368102814167040***

***Links for the presenters and for the participation in the Workshop:***

**Sessions Α
https://msteams.link/32KN

Sessions** [**Β**](https://msteams.link/NJ6M) **https://msteams.link/9XT5

Sessions C
https://msteams.link/4OE0

Sessions D
https://msteams.link/MTL1

Sessions E
https://msteams.link/H282**

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***2nd announcement / 3rd Hybrid (physical-virtual real-time) Workshop in "Innovative Seismic Protection and Structural/Community Resilience" Friday 28th of February 2025, place: Civil Engineering Department, Democritus University of Thrace (DUTh), Conference Center, Xanthi, Greece***

**Workshop Program**
**Invited Presentations**

***Chairs for all sessions to be released soon!***

**Friday 28th of February, Time 14:30-20:30 (Eastern European Time, EET, UTC+02:00).\***

**Session A**

**14:30 – 15:00 A Welcome and Greetings**

**15:00 – 15:30 A**
**Keynote presentation** **by Prof. P. Spyridis “*Risk dynamics of sustainable innovation in structural interventions”*, Massivbau, Universität Rostock, Germany**

**15:30 – 16:00 A**

**Keynote presentation** **by Prof. L. Iliadis *“ESSENCE of ARTIFICIAL INTELLIGENCE + RESPONSIBLE AI/SYNERGY”*, Department of Civil Engineering, Democritus University of Thrace, Greece**

**16:00 – 16:30 A**

**Keynote presentation** **by Professor  Denvid Lau, “*Multiscale modelling of fiber-reinforced composites in the application of seawater sea-sand concrete***”, **Department of Architecture and Civil Engineering, Associate Director, CityUHK Academy of Innovation, Founding Member of the Hong Kong Young Academy of Sciences, City University of Hong Kong**

**16:30 – 16:50  Break**

**16:50-18:10 A**

**16:50 – 17:10 A**

**Patricio Quintana Gallo1, Farhad Dashti2, Stefano Pampanin3, “System effect in reinforced concrete wall buildings” 1Chair of Concrete Structures and Infrastructure Engineering, University of Rostock, Rostock, Germany, 2ZURU Tech HK Ltd, Hong Kong, 3Department of Structural and Geotechnical Engineering, Sapienza University, Rome, Italy**

**17:10 – 17:30 A**

**Patricio Quintana Gallo1, Andreas Pürgstaller2, Jonathan Ciurlanti3, Simona Bianchi4, Stefano Pampanin5, Konrad Bergmeister6 “Seismic protection of non-structural components using anchorage with supplemental damping devices”, 1Chair of Concrete Structures and Infrastructure Engineering, University of Rostock, Rostock, Germany, 2Bergmeister Ingenieure GmbH, Munich, Germany, 3ARUP, Amsterdam, The Netherlands, 4Department of Structural Design and Mechanics, Delft University of Technology, Delft, The Netherlands, 5Department of Structural and Geotechnical Engineering, Sapienza University, Rome, Italy, 6Institute of Structural Engineering, University of Natural Resources and Life Sciences, Vienna, Austria**

**17:30 – 17:50 A**

**Emmanouil Rovithis, Dimitris Sotiriadis, Maria Iovino and Raffaele Di Laora, “Piles’ filtering effect on the seismic loading of structures: The role of some key features”, Democritus University of Thrace, "Parthenope" University of Naples - Italy, University of Campania Luigi Vanvitelli – Italy**

**17:50 – 18:10 A**

3rd High School of Xanthi: "Earthquake disaster management in the city of Xanthi. Institutional requirements and current situation", supervisor: Diamantis Argyris, Physicist, MSc in Radioelectronics, MSc in Disaster and Crisis Management, Tsaousidis Alexandros, Koklas-Chatzitheofanous Mikail-Periklis, Vranias Anastasios, Vidouras Dimitris, Zolotas Georgios, Evangeloudis Panagiotis

3ο ΓΕΝΙΚΟ ΛΥΚΕΙΟ ΞΑΝΘΗΣ <mail@3lyk-xanth.xan.sch.gr>

**16:50-18:10 B**

**Special Session B1**

 **Mathematical Methods in Engineering Applications**

**Organizers**

**- Assist. Prof. Avrilia Konguetsof, Assist. Prof. Konstantinos Spiliotis**

**Chairman**

**- Basil Papadopoulos, Konstantinos Spiliotis**

**16:50 – 17:10 B**

**Dr Stefanos Makariadis, Ass. Prof. Avrilia Konguetsof, Emer. Prof. Basil Papadopoulos, “Generation of multi-formula fuzzy implications.” Department of Civil Engineering, Democritus University of Thrace, Greece**

**17:10 – 17:30 B**

**Dr Georgios Souliotis, Ass. Prof. Avrilia Konguetsof, “Utilizing the Inverse Fourier Transform for Constructing Fuzzy Sets from Frequency Distributions.” Department of Civil Engineering, Democritus University of Thrace, Greece**

**17:30 – 17:50 B**

Athina Ayfanti, Ass. Prof. Avrilia Konguetsof, Emer. Prof. Basil Papadopoulos, “An introduction to copulas.” **Department of Civil Engineering, Democritus University of Thrace, Greece**

**17:50 – 18:10 B**

**Dr Dimitrios Grammatikopoulos, Ass. Prof. Avrilia Konguetsof, “The Transition from Classical Logic to Fuzzy Logic: A Road of Generalizations and Recent Results.” Department of Civil Engineering, Democritus University of Thrace, Greece**

**16:50-18:10 C**

**16:50 – 17:10 C**

**P. Xystris, K. Xystri, "Structural Health MonitoringSystems & Applications", Neotek SA, Athens, Greece (Sponsor)**

**17:10 – 17:30 C**

**Violetta K. Kytinou, "Shaping the Future of Construction with Sustainable Practices", Department of Civil Engineering, Democritus University of Thrace, Greece**

**17:30 – 17:50 C**

**Aspasia Mousoulidi “Green Skills and Construction Sector”, EU Project Department, PEDMEDE | Panhellenic Association of Engineers Contractors of Public Works**

**17:50 – 18:10 C**

**M. Kardala, “Structural assessment of buildings concerning the modern (greek and european) urban planning, legal and energy framework”, Dr Civil Engineer mariakardala@gmail.com**

**16:50 – 18:10 D**

**16:50 – 17:10 D**

**Valeriy Lepov, "Multiscale modeling of ice and fiber-ice fracture", IPTPN SB RAS, Russia**

**17:10 – 17:30 D**

**Maria Stefanidou, Ifigeneia Theodoridou, Katerina Vatitsi, Giorgos Mallinis, "Advantages and benefits from vertical forests in the urban fabric", School of Rural & Surveying Engineering, Aristotle University of Thessaloniki (AUTH).**

**17:30 – 17:50 D**

**S. Papadopoulou, T. Rousakis "The importance of the philosophy of Democritus of Abdera and its impact on human society resilience", Structural Engineering Science Division, Civil Engineering Department, Democritus University of Thrace (DUTh), Greece**

**17:50 – 18:10 D**

**18:10-18:30** **Break**

**18:30 – 19:50 A**

**18:30 – 18:50 A**

**Dimitra Tsirigoti, Konstantinos Gkyrtis, “Environmental awareness for asphalt pavements’ impact on the microclimate of urban landscapes”, Department of Civil Engineering, Democritus Univesrity of Thrace**

**18:50 – 19:10 A**

**Maristella Voutetaki, Anastasios Mpalaskas; Efstathios Gavriilidis; Dimitrios Giouzepas,**

**“Structural Innovations in Sustainable Architecture: Exploring Mycelium Bio-Composites for Green Construction“, Department of Architectural Engineering, Department of Civil Engineering, Democritus University of Thrace, Greece**

**19:10 – 19:30 A**

Th. Pringopoulos “Cross-border cooperation perspectives for Eastern Macedonia and Thrace, for a common networking strategy for the Industrial Heritage promotion”, Service of Modern Monuments and Technical Works of East Macedonia – Thrace, Ministry of Culture, Xanthi, Greece.

**19:30 – 19:50 A**

**A. Thomoglou “Ιnnovative use of modern materials and technologies for the protection and restoration of cultural heritage”, Service of Modern Monuments and Technical Works of East Macedonia – Thrace, Ministry of Culture, Democritus University of Thrace, Xanthi, Greece.**

**Special Session B2**

 **Mathematical Methods in Engineering Applications**

**Organizers**

**- Assist. Prof. Avrilia Konguetsof, Assist. Prof. Konstantinos Spiliotis**

**Chairman**

**- Basil Papadopoulos, Konstantinos Spiliotis**

**18:30 – 19:50 B2 3rd session**

**18:30 – 18:50 B**

**Eleftherios Makariadis1, Ass. Prof. Avrilia Konguetsof2, Emer. Prof. Basil Papadopoulos2, “Comparison and evaluation of fuzzy implication generation methods through real world applications.” 1Department of Supply Chain, Hellenic Air Force Academy, Dekelia Air Base, 13677 Acharnes, Greece, 2Department of Civil Engineering, Democritus University of Thrace**

**18:50 – 19:10 B**

**Giannis Papadopoulos, Michalis Christogiannopoulos, Ass. Prof. Ioannis Tsoukalas, Ass. Prof. Konstantinos Spiliotis, “Analysing the climate dynamics of Iberian peninsula via complex networks.” Department of Civil Engineering, Democritus University of Thrace, Greece**

**19:10 – 19:30 B**

**Michalis Christogiannopoulos, Giannis Papadopoulos, Ass. Prof. Konstantinos Spiliotis, Ass. Prof. Ioannis Tsoukalas, “Utilizing the Standardised Precipitation-Evapotranspiration Index (SPEI) to identify hotspots of enhanced climate connectivity in Italy.” Department of Civil Engineering, Democritus University of Thrace, Greece**

**19:30 – 19:50 B**

**Ass. Prof. Konstantinos Karagiorgos1,2,3, Asc. Prof.Nikos Kavallaris2,4, Lecturer Ole Sönneborn4, Ass. Prof. Konstantinos Spiliotis5, “Strengthening civil protection for flood disasters, using complex networks. The Karlstad (Sweden) case.” 1Risk and Environmental Studies, Karlstad University, Karlstad, Sweden, 2Centre for Societal Risk Research (CSR), Karlstad University, Karlstad, Sweden, 3Centre of Natural Hazards and Disaster Science (CNDS), Uppsala, Sweden, 4Mathematics, Karlstad University, Karlstad, Sweden, 5Department of Civil Engineering, Democritus University of Thrace, Greece**

**18:30 – 19:50 C**

**18:30 – 18:50 C**

**Pavlos Asteriou, “Leveraging Crowdsourced Imagery for Advancing Geohazards Assessment”, Department of Civil Engineering, Democritus University of Thrace, Xanthi, Greece**

**18:50 – 19:10 C**

**I. Kiriakidis, K. Tsongas, “Development of Advanced Polymer-Based Engineering Materials with Waste-Derived Additives“, Department of Industrial Engineering and Management, International Hellenic University, Thessaloniki, Greece** giankyri@iem.ihu.gr

**19:10 – 19:30 C**

**Emmanuil Chaitas, Anaxagoras Elenas, Ioannis E. Kavvadias, Kosmas E. Bantilas, "** **Interrelation between seismic intensity parameters and damage indices of structures", Department of Civil Engineering, Democritus University of Thrace, Xanthi, Greece,**

**19:30 – 19:50 C**

**Vachan Vanian1, Theodoros Rousakis1, Theodora Fanaradelli1, Maristella Voutetaki2, Makrini Macha3, Adamantis Zapris1, Ifigeneia Theodoridou4, Maria Stefanidou4, Katerina Vatitsi4, Giorgos Mallinis4, Violetta Kytinou1, Constantin Chalioris1,**

 **“Short-STPA analysis for VF balcony and living wall system on RC Buildings”,**

**1Department of Civil Engineering, Democritus University of Thrace, 67100 Xanthi, Greece ;**

**vvanian@civil.duth.gr (V.V.); trousak@civil.duth.gr (T.R.); tfanarad@civil.duth.gr (T.F.); azapris@civil.duth.gr (A.Z.); vkytinou@civil.duth.gr (V.K.); chaliori@civil.duth.gr (C.C.)**

**2Architectural Engineering Department, School of Engineering, Democritus University of Thrace, 67100 Xanthi, Greece; mvouteta@arch.duth.gr (M. V.)**

**3Institute of Structural Engineering, BOKU University, 1180 Vienna, Austria; makrini.macha@boku.ac.at (M. M.)**

**4Department of Rural and Surveying Engineering, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece; ifigeneia@e2architects.eu (I.T.); stefanidou.m@gmail.com (M.S.); avatitsi@topo.auth.gr (K.V.); gmallin@topo.auth.gr (G.M.)**

**18:30 – 19:50 D**

**18:30 – 18:50 D**

**Anastasios C. Mpalaskas 1 , Violetta K. Kytinou 1 , Adamantis G. Zapris 1,\* and Theodore E. Matikas 2, “Optimizing Building Rehabilitation through Nondestructive Evaluation of Fire-Damaged Steel-Fiber-Reinforced Concrete”, 1 Laboratory of Reinforced Concrete and Seismic Design of Structures, Department of Civil Engineering, School**

**of Engineering, Democritus University of Thrace (DUTH), 67100 Xanthi, Greece;**

**abalaska@civil.duth.gr (A.C.M.); vkytinou@civil.duth.gr (V.K.K.)**

**2 Department of Materials Science and Engineering, University of Ioannina, 45110 Ioannina, Greece;** matikas@uoi.gr **\* Correspondence: azapris@civil.duth.gr**

**18:50 – 19:10 D**

**Stylianos I. Pardalopoulos, “Practical Methodology for the Assessment of the Dynamic Response of Secondary Systems in Structures”, Department of Civil Engineering, Democritus University of Thrace, Xanthi, Greece.**

**19:10 – 19:30 D**

**Vassilios A. Lekidis, “Structural Safety of Bridges, One Concise and Effective Way of Screening Old Bridges for Vulnerability”, Research Director, ITSAK research unit of the Earthquake Planning and Protection Organization, Thessaloniki, Greece, e-mail: lekidis@itsak.gr**

**19:30 – 19:50 D**

V.K. Kytinou, A.G. Zapris, I.P. Xynopoulos, V. D. Prokopiou2, Z.S. Metaxa2, N. D. Alexopoulos3, “Νovel XPS Lightweight Thermoinsulating Cement Mortar: Experimental Investigation of the mechanical behaviour”,Laboratory of Reinforced Concrete and Seismic Design of Structures, Department of Civil Engineering, Democritus University of Thrace (DUTh), Xanthi, Greece, 2Hephaestus Laboratory, School of Chemistry, Democritus University of Thrace, Kavala, Greece, 3Research Unit of Advanced Materials, Department of Financial and Management Engineering, University of the Aegean, Chios, Greece

**18:30 – 19:50 Ε**

**18:30 – 18:50 Ε**

**Nikolaos Mellios1, Panagiotis Spyridis2, “Experimental and numerical investigation of anchor breakout capacity in SFRC”, 1TU Dortmund,** nikolaos.mellios@tu-dortmund.de**, , 2TU Rostock, panagiotis.spyridis@uni-rostock.de**

**18:50 – 19:10 Ε**

**Nikolaos Mellios1, Irene Bourbouni2,4, Anna Maria Kourti3,4, Theodoros Rousakis4 “Remote evaluation of deformation of structures using Digital Image Correlation”, 1TU Dortmund,** nikolaos.mellios@tu-dortmund.de**, 2Technodynamiki,** Irenebour2000@gmail.com**, 3Egnatia,** mariakurti27@gmail.com, 4 **Civil Engineering Department, Democritus University of Thrace (DUTh), Greece**

**19:10 – 19:30 Ε**

**S. Papadopoulou, T. Rousakis "The importance of the philosophy of Democritus of Abdera and its impact on human society resilience", Structural Engineering Science Division, Civil Engineering Department, Democritus University of Thrace (DUTh), Greece**

**19:30 – 19:50 Ε**

**D. Christoforidis, “Τεχνητή νοημοσύνη και πόσο μπορεί να συμβάλλει στην επιστήμη και στην κοινωνία”, Research & Teaching Associate, Sustainability Engineering Laboratory, Mechanical Engineering dpt., Aristotle University of Thessaloniki**

**19:50-20:00** **Break**

**20:00-20:10 A**

**Association of Friends of Democritus and of Democritus University of Thrace CIND, “A Brief Presentation”**

**20:10-20:30 A**

**Discussion and Closing of the workshop - Conclusions / 4rth Hybrid Workshop!**

**Arrangements for the Xanthi Carnival – Social Program**

**12:30-13:30**

K. Mitlianga, Guided tour in the Old Town of Xanthi, entitled: "The Architectural Development caused by the rise of the tobacco industry", Service of Modern Monuments and Technical Works of East Macedonia – Thrace, Ministry of Culture, Xanthi, Greece.

\*Interested sponsors/donators may contact    trousak@civil.duth.gr

***Chairs of the sessions***

1. ***14:30-16:30 C. Chalioris, L. Iliadis, P. Spyridis, D. Lau, T. Rousakis, D. Tsirigoti, I. Kavvadias, A. Mpalaskas, A. Konguetsof, P. Lazaridis, V. Vanian, V. Michail, Z. Xatziparaskeva,*** ***C. Vekidimitriadis, T. Fanaradelli, M. Karabini, M. Lappa, G. Karasakalidis, A. Thomoglou,*** *I. Maragkou,*

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***A 16:50-18:10 Patricio Quintana Gallo, Stefano Pampanin, Konrad Bergmeister, Emmanouil Rovithis,*** *Diamantis Argyris****, C. Chalioris, L. Iliadis, P. Spyridis, D. Lau, T. Rousakis, D. Tsirigoti, I. Kavvadias, A. Balaskas, A. Konguetsof, P. Lazaridis, V. Vanian, V.*** *I. Maragkou,*

***B 16:50-18:10 Basil Papadopoulos, Konstantinos Spiliotis***

***C 16:50-18:10 K. Xystri, P. Xystris, A. Mousoulidi, V. Kytinou, M. Kardala,***

***D 16:50-18:10* Valeriy Lepov, Maria Stefanidou, Ifigeneia Theodoridou, Katerina Vatitsi, Giorgos Mallinis, S. Papadopoulou, T. Rousakis**

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***A 18:30-19:50 Dimitra Tsirigoti, Konstantinos Gkyrtis,*** *Diamantis Argyris****, Maristella Voutetaki, Anastasios Mpalaskas, Efstathios Gavriilidis; Dimitrios Giouzepas I.****. Maragkou, Th. Pringopoulos, A. Thomoglou*

***B 18:30-19:50 Basil Papadopoulos, Konstantinos Spiliotis***

***C 18:30-19:50 Pavlos Asteriou, I. Kiriakidis, K. Tsongas, Emmanuil Chaitas, Anaxagoras Elenas, Ioannis E. Kavvadias, Kosmas E. Bantilas, Vachan Vanian, Theodoros Rousakis, Theodora Fanaradelli, Maristella Voutetaki, Makrini Macha, Adamantis Zapris, Ifigeneia Theodoridou, Maria Stefanidou, Katerina Vatitsi, Giorgos Mallinis,***

***D 18:30-19:50 Anastasios C. Mpalaskas 1 , Violetta K. Kytinou 1 , Adamantis G. Zapris and Theodore E. Matikas, Stylianos I. Pardalopoulos, Vassilios A. Lekidis, , I.P. Xynopoulos, V. D. Prokopiou, Z.S. Metaxa,***

***E 18:30-19:50 D. Christoforidis, Nikolaos Mellios, Panagiotis Spyridis, S. Papadopoulou, Irene Bourbouni, Anna Maria Kourti, T. Rousakis***

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***A 20:10-20:30 C. Vekidimitriadis, P. Lazaridis, G. Karasakalidis, Dimitra Tsirigoti, Avrilia Konguetsof , Ioannis E. Kavvadias, A. Mpalaskas, T. Rousakis, K. Spiliotis, S. Pardalopoulos***