



Athens Institute for Education and Research
1st Annual International Conference on Structural Engineering and Mechanics
20-23 June 2016, Athens, Greece

Organized by the [Engineering & Architecture Research Division](#) of ATINER
sponsored by the [Athens Journal of Technology and Engineering](#)



Conference Venue: [Titania Hotel](#), 52 Panepistimiou Street, 10678 Athens, Greece

Monday 20 June 2016

(all sessions include 10 minutes break)

08:00-08:30 Registration and Refreshments

08:30-09:00 Welcome & Opening Address (ROOM B-Mezzanine Floor)

- Gregory T. Papanikos, President, ATINER.
- George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.

09:00-10:30 Session I (ROOM E-10th Floor): A Panel on Advanced Composites, Sustainable Materials in Civil Infrastructures I

Chair: Thomas Attard, Head, Civil Engineering Research Unit, ATINER & Associate Professor, The University of Alabama at Birmingham, USA.

1. Murad Abufarsakh, Professor, Louisiana State University, USA & Allam Ardah, Ph.D. Student, Louisiana State University, USA. Evaluating the Resilient Modulus of Treated Very Weak Subgrade Soils for Sustainable Pavement.
2. Wanlin Cao, Professor, Beijing University of Technology, China. Seismic Behavior of Steel-concrete Multi Energy Dissipation Composite Shear Walls.
3. *Mang Tia, Professor, University of Florida, USA, Ohhoon Kwon, Assistant Scientist, University of Florida, USA, Larry Muszynski, Associate Professor, University of Florida, USA & Michael Bergin, State Structural Materials Engineer, Florida DOT, USA. Use of Maturity Method in Concrete Pavement Replacement Slab Construction.

10:30-12:00 Session II (ROOM E-10th Floor): A Panel on Optimization and Advanced FEA/Structural Analysis Methods	10:30-12:00 Session III (ROOM F-10th Floor): Earthquake Engineering
Chair: Fouad Mohammad, Academic Member, ATINER & Senior Lecturer, Nottingham Trent University, U.K.	Chair: Wanlin Cao, Professor, Beijing University of Technology, China.
<ol style="list-style-type: none"> 1. *<u>Shankar Bhavikatti</u>, Emeritus Professor, K.L.E. Technological University, India & Harshavardhan Velpur S., Consulting Civil Engineer, Dharwad, India. Optimum Design of Grid Floors. 2. Marcelo Epstein, Professor, University of Calgary, Canada. What is a Homogeneous Shell? 3. <u>Jihad Rishmany</u>, Assistant Professor, University of Balamand, Lebanon, Nicolas Saba, Assistant Professor, University of Balamand, Lebanon & Issam Tawk, Associate Professor, University of Balamand, Lebanon. Optimization of a Vertical Axis Wind Turbine Using FEA, Multibody Dynamics and Wind Tunnel Testing. 4. <u>Nicolas Saba</u>, Assistant Professor, University of Balamand, Lebanon, Jihad Rishmany, Assistant Professor, University of Balamand, Lebanon & Issam Tawk, Associate Professor, University of Balamand, Lebanon. Optimization of the Production Process of an A-Pillar using a Differential Thickness Profile Approach via FEA. 5. <u>Kseniia Zhaivoronskaia</u>, Ph.D. Student, Southern Federal University, Russia, Sergey Shevtsov, Professor, Southern Federal University, Russia & Ilya Tarasov, Project Leader, Carbonstudio LLC, Russia. Model Based Control Optimization for Curing the Shell-like Composite Structures in Autoclave Processing. 	<ol style="list-style-type: none"> 1. *Antoine Gergess, Professor, University of Balamand, Lebanon. Seismic Provisions for Elastomeric Bearings in Bridge Structures. 2. Idriss Rouaz, Researcher, National Center for Studies and Integrate Researches of Building “CNERIB”, Algeria. Study of Screws' Spacing Influence on Cold Formed Steel Shear Wall Panel. 3. *<u>Santosh Yonjan</u>, MSc Student, Shinshu University, Japan, Toshiyuki Ohkami, Professor, Shinshu University, Japan & Koyama Shigeru, Associate Professor, Shinshu University, Japan. Study on the Impacts of April 2015 Earthquake at Lisankhu Village, Sindhupalchok Nepal. 4. Madi Rafik, Vice Dean of Pedagogy Charge, University May 08 1945, Algeria & Mohamed Guenfoud, Dean, University May 08 1945, Algeria. Evaluation of the Capacity after Rehabilitation of Buildings against the Earthquake.

12:00-13:30 Session IV (ROOM E-10th Floor): Dynamical Systems I
Chair: *Mang Tia, Professor, University of Florida, USA.
<ol style="list-style-type: none"> 1. Farhad Mohammad, Head of Engineering Department, Kurdistan Regional Government, Iraq. Assessing Response of Structural Key Elements to Blast and Impacts. 2. <u>Adrian Pozos-Estrada</u>, Associate Researcher, National Autonomous University of Mexico, Instituto de Ingeniería (UNAM), Mexico & Adrián López-Ibarra, National Autonomous University of Mexico, Instituto de Ingeniería (UNAM), Mexico. Serviceability Limit State for Wind-Sensitive Buildings in Mexico. 3. <u>Antonio Ventura</u>, Ph.D. Student, Politecnico di Torino, Italy, Bernardino Chiaia, Professor, Politecnico di Torino, Italy & Valerio De Biagi, Postdoctoral Fellow, Politecnico di Torino, Italy. Impact of Falling Rock Blocks on Metallic Structures: Contact Law and Dynamic Response.

13:30-14:30 Lunch

14:30-16:00 Session V (ROOM E-10th Floor): General Civil Engineering Topics

Chair: *Antoine Gergess, Professor, University of Balamand, Lebanon.

1. Mumtaz Usmen, Professor, Wayne State University, USA, Mohsen Isa, Researcher, Wayne State University, USA & Emrah Kazan, Lecturer and Researcher, Wayne State University, USA, Quality Modeling Approach to Improving University Facilities Services: An Empirical Study.
2. Soon Duck Kwon, Professor, Chonbuk National University, South Korea. A Comparative Study on Wind Tunnel Test and Design Codes in Evaluation of Wind Loads on Tower.
3. Najib Saliba, Assistant Professor, University of Balamand, Lebanon & Johnny Issa, Assistant Professor, University of Balamand, Lebanon. Numerical Modelling of Lean Duplex Stainless Steel and Assessment of Existing Design Methods.
4. Robert Evans, Senior Lecturer, Nottingham Trent University, U.K. Detection of Excessive Moisture within Bituminous Pavements using Ground Penetrating Radar (GPR).

16:00-17:30 Session VI (ROOM E-10th Floor): Geotechnical Engineering

Chair: *Shankar Bhavikatti, Emeritus Professor, K.L.E. Technological University, India.

1. Venu Chandra, Assistant Professor, Indian Institute of Technology Madras, India, Ananth Wuppukondur, Indian Institute of Technology Madras, India & Ranjith K B, Indian Institute of Technology Madras, India. An Experimental Study to Reduce Sediment Entry into an Intake Canal.
2. Hacene Benyaghla, University of Guelma, Algeria. Influence of the Friction Angle in Calculating in Three-Dimensional Active Earth Pressure behind Pile and Screen.

17:30-20:00 Session VII (ROOM A- Mezzanine Floor): A Round Table Discussion on ‘The Future of Sciences, Engineering and Technology’

Chair: Lampros A. Pyrgiotis, Scholar & President, Greek Society of Regional Scientists, Greece.

1. Dr **Miryam Barad**, Professor, Tel Aviv University, Israel.
2. Dr **Rolf Steinbuch**, Professor, Reutlingen University, Germany
3. Dr **Venkatachalam Rapur**, Professor, National Institute of Technology, India.
4. Dr **Ru-Shi Liu**, Professor, National Taiwan University, Taiwan.
5. Dr **Mahmoud Aminlari**, Professor, Shiraz University, Iran.
6. Dr **Ingo Ehrlich**, Professor, Ostbayerische Technische Hochschule Regensburg, Germany.
7. Dr **Theodore Trafalis**, Head, [Industrial Engineering Research Unit](#), ATINER, Professor of Industrial and Systems Engineering & Director, Optimization & Intelligent Systems Laboratory, The University of Oklahoma, USA.

21:00-23:00 Greek Night and Dinner (Details during registration)

Tuesday 21 June 2016

08:00-09:30 Session VIII (ROOM E-10th Floor): A Panel on Sustainable Civil Engineering Materials

Chair: Mumtaz Usmen, Professor, Wayne State University, USA.

1. Jovana Jovanovic, Ph.D. Student, University Union Nikola Tesla, Serbia, Svetlana Stevovic, Professor, University Union Nikola Tesla, Serbia & Ivan, Stevovic, Teaching Assistant University Union Nikola Tesla, Serbia, Serbia. Windmill's Breakthrough in the Governance of Energetic Landscapes.
2. Junliang Wang, Ph.D. Student, Chongqing University, China. Standards and Case Studies of Green Retrofitting of Existing Buildings in China.

09:30-11:00 Session IX (ROOM E-10th Floor): Dynamical Systems II

Chair: Najib Saliba, Assistant Professor, University of Balamand, Lebanon.

1. Roberto Gomez, Associate Professor, Institute of Engineering, National Autonomous University of Mexico, Mexico, R. Sánchez, Institute of Engineering, National Autonomous University of Mexico, Mexico, A. Pozos, Institute of Engineering, National Autonomous University of Mexico, Mexico, L. Arenas, Institute of Engineering, National Autonomous University of Mexico, Mexico, O. Rosales, Institute of Engineering, National Autonomous University of Mexico, Mexico & M. Mendoza, Institute of Engineering, National Autonomous University of Mexico, Mexico. Wind Tunnel Testing of an Airport Terminal Building.
2. *Juan Alejandro Vazquez Feijoo, Senior Lecturer, CIIDIR-Oaxaca, Instituto Politecnico Nacional, Mexico. Extension of the Short Time Fourier Transform for Nonlinear Systems.
3. Emrah Sevinc, Ph.D. Student, Dokuz Eylul University, Turkey & Mehmet Suku Guney, Professor, Dokuz Eylul University, Turkey. Experimental Study of the Influence of Plant Configuration on the Wave Propagation Resulting from Dam Break.
4. Fuat Aras, Associate Professor, Istanbul Medeniyet University, Turkey. Operational Modal Analysis to Confirm the Numerical Model of a Reinforced Concrete Building.
5. Alexander Tyapin, Senior Specialist, ATOMENERGOPROJECT, Russia. Non-Classical Damping and Limitations of the Modal and Spectral Dynamic Analyses.

09:30-11:00 Session X (ROOM F-10th Floor): A Panel on Earthquake Masonry Structures

Chair: Robert Evans, Senior Lecturer, Nottingham Trent University, U.K.

1. Shihong Qin, Professor, Chongqing University, China, Bang Rao, Graduate Student, Chongqing University, China, Tianxiang Pi, Associate Professor, Chongqing University, China & Dengwei He, Chongqing University, China. Experimental Study on Seismic Behavior of Horizontal Prestressed Brick Masonry Wall.
2. Xiang Li, Associate Professor, Tongji University, China & Xianglin Gu, Professor, Tongji University, China. Modeling and Critical Member of Unreinforced Masonry Schoolhouse under Earthquake.
3. Weifan Xu, Ph.D. Candidate, Harbin Institute of Technology, China, Fenglai Wang, Professor, Harbin Institute of Technology, China, Yan Zhao, Associate Professor, Jiamusi University, China & Xujie Sun, Instructor, Heilongjiang Institute of Technology, China. Research on Seismic Performance of Hectometer Reinforced Block Masonry High-Rise Buildings.

11:00-14:00 Educational and Cultural Urban Walk Around Modern and Ancient Athens (Details during registration)

14:00-15:00 Lunch

15:00-16:30 Session XI (ROOM E-10th Floor): A Panel on Advanced Composites, Sustainable Materials in Civil Infrastructures II

Chair: *Juan Alejandro Vazquez Feijoo, Senior Lecturer, CIIDIR-Oaxaca, Instituto Politecnico Nacional, Mexico.

1. George Frantziskonis, Professor, University of Arizona, USA, Sourav Gur, Graduate Student, University of Arizona, USA & Sudib Mishra, Assistant Professor, Indian Institute of Technology Kanpur, India. Shape Memory Alloy (SMA) base Vibration Absorber via Strain Rate Dependent Thermo-Mechanical Behavior and Comparison with Conventional Absorbers.
2. Hongying Dong, Associate Professor, Beijing University of Technology, China & Wanlin Cao, Professor, Beijing University of Technology, China. Experimental Research on Flexural Performance of High Strength Recycled Aggregate Concrete Slabs.
3. Aleksandar Savic, Assistant Professor, University of Belgrade, Serbia & Marina Askrabic, Teaching Assistant, University of Belgrade, Serbia. Investigation of Self-Compacting Mortars with Fly Ash and Crushed Brick.
4. Xuan Dai Lu, Postgraduate Student, University of Canterbury, New Zealand & Mofreh Saleh, Associate Professor, University of Canterbury, New Zealand. Evaluation of Performance of a New Warm-Mix Asphalt Additive.
5. Safiullah Omary, Ph.D. Student, University of Cergy Pontoise, France & Elhem Ghorbel, Professor, University of Cergy Pontoise, France. Influence of Coarse Demolition Waste Aggregates on Physical and Mechanical Properties of Concretes.

16:30-18:00 Session XII (ROOM E-10th Floor): Special Topics

Chair: George Frantziskonis, Professor, University of Arizona, USA.

1. Svetlana Stevovic, Professor, University Union Nikola Tesla, Serbia & Jovana Jovanovic, Ph.D. Student, University Union Nikola Tesla, Serbia. Techno Economic, Environmentally and Socially Optimal Small Hydro Power Plant Construction.
2. Dimos Polyzois, Professor, University of Manitoba, Canada & Eleoussa Polyzois, Professor, University of Winnipeg, Canada. Exploring the Links between Household Mould, Children's Respiratory Health, and School Absenteeism.
3. Hafez Al Sadeq, Assistant Professor and Civil Engineering Programme Leader, Caledonian College of Engineering, Oman. Review of Earthquake Forces in the New Seismic Design Code of Oman.
4. Victor Rogelio Tirado Picado, Director, Construction Department, Universidad Nacional Autonoma de Nicaragua, Nicaragua. Forecast Model of Rainfall for Hydrological Units using Artificial Neural Networks (ANN).
5. Mounir Mabsout, Professor, American University of Beirut (AUB), Lebanon, Ghassan Fawaz, Instructor and Former Graduate Student, American University of Beirut (AUB), Lebanon, Michel Waked, Senior Transport Planne, WSP Middle East, Dubai, United Arab Emirates (UAE) & Kassim Tarhini, Professor, U.S. Coast Guard Academy (USCGA), USA. Wheel Load Distribution in Concrete Slab Bridges Stiffened with Side Railings.

21:00-22:30 Dinner (Details during registration)

Wednesday 22 June 2016
Cruise: (Details during registration)

Thursday 23 June 2016
Delphi Visit: (Details during registration)