

WEDNESDAY, 3 JULY, 2019

13:15 - 13:30: WELCOME

13:30 - 14:30: PLENARY LECTURE

**"Signal Processing Techniques and Considerations for
Successful FFT Analysis"**

by

Dr. Thomas L. Lago

CTO & Chairman of QIRRASOUND TECHNOLOGIES AB, Sweden

PARALLEL SESSIONS

WEDNESDAY 14:30 -15:50

Wednesday, July 3rd 14:30-15:50

Room : NIKI

**“MODERN WIRELESS COMMUNICATION SYSTEMS BASED ON VLC
OF FSO TECHNOLOGY”**

INVITED SESSION

**Organized by: Prof. H.E. Nistazakis
National & Kapodistrian University of Athens**

Chairmen: Tsigopoulos A.D., Stassinakis A.N.

- 14:30-14:50** “Outage Performance Study of a Multi-Hop AF Relay System Approximated by a Dual-Hop Sceme over Rician Fading Wireless Channels”
Manganaris K., Androutsos N., Stassinakis A., Tsigopoulos A, Tzanakaki A., Nistazakis H.E.
- 14:50-15:10** “VLC Performance Enhancement Using a Band-Pass Optical Filter”
Manousou D., Stassinakis A.N., Ioannou K., Koukos I, Tzanakaki A., Nistazakis H.E.
- 15:10-15:30** “Outage Probability Estimation for Hybrid FSO/MMW Links with Receivers’ Diversity Over K and Rician Channels”
Roumelas G.D., Stassinakis A.N., Nistazakis H.-E., Volos C, Tzanakaki A., Tombras G.S.
- 15:30-15:50** “Non-Line of Sight Underwater Optical Wireless Communications Systems”
Menounou S., Stassinakis A.N., Tsigopoulos A.D., Nistazakis H.E., Tzanakaki A., Tombras G.S.

Wednesday, July 3rd 14:30-15:50

Room : ATHENS

“APPLICATIONS OF OPTIMIZATION METHODS IN TAIWAN”

INVITED SESSION

**Organized by : Prof. A.H.I Lee
Chung Hua University, Taiwan**

Chairmen: Hsieh L.-F., Lee A.H.I.

- 14:30-14:50** “Construction of Operational Performance Evaluation Model for Taiwan High-Speed Railway Stations”
Hsieh L.-F., Lan J.-E., Gerelsuren T., Hung S.-Y.
- 14:50-15:10** “A Preliminary Study for Senior Daycare Center Evaluation”
Lee A.H.I., Kang H.-Y., Hsieh L.-F., Liu T.-N.
- 15:10-15:30** “Modeling and Optimizing the Multi-Period Vehicle Routing Problem with

Quantity Discounts”
Kang H.-Y., Lee A.H.I., Yang S.-W.
15:30-15:50 “A Model for Strategy Selection of Old Downtown Revitalization: A Case Study”
Wang W.-M.

PARALLEL SESSIONS

WEDNESDAY 16:20 -18:00

Wednesday, July 3rd 16:20-18:00 **Room : NIKI**

“AEROSPACE APPLICATIONS IN NAVAL OPERATIONS”

INVITED SESSION
Organized by Prof. I. Koukos
Hellenic Naval Academy

Chairmen: Koukos I., Pothitos A.

16:20-16:40 “Design and Integration of a Cubesat for Maritime and Defense Applications over Exclusive Economic Zones (EEZ)”
Gouskos-Katsaros K., Koukos I.

16:40-17:00 “Determination of a Cubesat’s Orbit Degradation. Use of MS EXCEL™ to Produce a Lifespan Estimate”
Gouskos-Katsaros K., Koukos I.

17:00-17:20 “Cybersecurity Threats to Picosatellite Links and Onboard Processors”
Papastamatis T., Koukos I.

17:20-17:40 “Stratospheric Balloons in a High Altitude Surveillance and Telecommunications Platform Network”
Pothitos A., Koukos I.

17:40-18:00 “Feasibility Analysis of Telecommunication Links between MALE Drones and LEO Picosatellites”
Karanagnostis K., Koukos I.

Wednesday, July 3rd 16:20-17:40 **Room : ATHENS**

“MULTIPHASE FLOW MODELING AND SIMULATION IN INDUSTRIAL APPLICATIONS”

INVITED SESSION
Organized by: Prof. D.P. Margaritis
University of Patras, Greece

Chairmen: Margaritis D., Samaras V.C.

16:20-16:40 “Resemblances and Differences in Performance of Several Scales Air-Lift Pumps”
Samaras V.C., Androulakis D., Margaritis D.P.

16:40-17:00 “Aerodynamic Degradation of a Three Bladed Horizontal Axis Wind Turbine Operating During a Hailstorm”
Douvi D.C., Georgakopoulos K.A.-G., Lekkas I.D., Douvi E.C., Margaritis D.P.

17:00-17:20 “Two-and Three-Dimensional Computational Investigation of the Separation Efficiency of an Air-Water Mixture Flowing through an Inclined T-Junction Branch”
Makrygiannis G.K., Margaritis D.P.

17:20-17:40 “Computational Analysis of Air Lubrication System for Commercial Shipping and Impacts on Consumption”
Fotopoulos A.G., Margaritis D.P.

THURSDAY 4 JULY, 2019

PARALLEL SESSIONS

THURSDAY 09:00 -10:20

Thursday, July 4th 09:00-10:20

Room : NIKI

MINI SYMPOSIUM

“MADM PRINCIPLES”

SESSION I – MODELING IN SIMULATION AND OPTIMIZATIONS

**Organized by: Prof. Chin-Tsai Lin
Ming Chuan University, Taiwan**

Chairmen: Chin-Tsai Lin, Hei Chia Wang

- 09:00-09:20** “Designing an Optimal CUSUM Control Charts via Support Vector Machine”
Yang S.-A., Wang T.-Y.
- 09:20-09:40** “Extracting Network Preferential Information with Bootstrapping Method”
Cheng, Y.F., Wang, H.C.
- 09:40-10:00** “Establishing Intuitionistic Fuzzy Regression Models: A Mixed Approach”
Chen L.-H., Nien, S.-S., Li Y.-C.
- 10:00-10:20** “Exploring the Relations between Perceived Teacher Support and Student
Academic Learning Engagement”
Chou H.-W., Tsao Y.-J.

PARALLEL SESSIONS

THURSDAY 11:00 -12:40

Thursday, July 4th 11:00-12:20

Room : NIKI

MINI SYMPOSIUM

“MADM PRINCIPLES”

SESSION II – MODELING IN SIMULATION AND OPTIMIZATIONS

**Organized by: Prof. Chin-Tsai Lin
Ming Chuan University, Taiwan**

Chairmen: Chin-Tsai Lin, Yi-Hsien Wang

- 11:00-11:20** “Comparative Study on Information Effect of A Chain of Mergers and
Acquisitions: An Information Asymmetry Perspective”
Kung W.-L., Chen C.-C., Lin W.-R., Wang Y.-H., Lu J.-H.
- 11:20-11:40** “Solving the Maximum Entropy Doubly Constrained Distribution/Assignment
Problem”
Chen H.-K., Yen Y.-H.
- 11:40-12:00** “A Preference Relation Method Based on Hesitant Fuzzy Linguistic Terms for
Decision-Making Problem”
Chen C.-T., Cheng H.-L.
- 12:00-12:20** “Exploring the Determinants To Improve Hot Spring Customer Satisfaction: A
Relational Analysis Using ISM with Fuzzy Micmac Approach”
Mi C.-M., Chen Y.-T., Ng J.C.Y., Lin C.-T.

Thursday, July 4th 11:00-12:40

Room : ATHENS

“SMART TECHNOLOGIES”

Chairmen: Mykoniatis G., Dossis M.

- 11:00-11:20** “Demand Capacity Balancing in Multi-Modal Transportation through Optimization and Simulation”
Mykoniatis G., Puechmorel S., Moracamino F., Zerrouki L., Richard M.
- 11:20-11:40** “System Framework to Support Interactive IoT Smart Museums”
Dossis M., Kontogiannis S., Kazanidis I., Valsamidis S., Kokkonis G.
- 11:40-12:00** “Mechanical Characterization of Aluminium Sandwich Structures under Tensile, Bending and Crack Propagation Loading Modes for Infrastructure Engineering”
Zaoutsos S.
- 12:00-12:20** “Parallelization of 2D-ATCP with Alternating Direction Implicit Scheme on MPI”
Ewedafe S.U.
- 12:20-12:40** “Sustainable Development in Green Energies and the Environment”
Omer A.

12:30 - 13:30 PLENARY LECTURE

"The Challenge of the Passenger Centric Transportation – Smart4PAX"

by

Dr. George Mykoniatis

Head of Business Development for the Research ENAC LAB, Toulouse France

PARALLEL SESSIONS

THURSDAY 14:30 -15:50

Thursday, July 4th 14:30-15:50

Room : NIKI

MINI SYMPOSIUM

“MADM PRINCIPLES”

SESSION III – MODELING IN SIMULATION AND OPTIMIZATIONS

Organized by: Prof. Chin-Tsai Lin

Ming Chuan University, Taiwan

Chairmen: Chin-Tsai Lin, Pin-Ju Juan

- 14:30-14:50** “How Should National Tourism Organization Offices Abroad Improve Competitiveness Through Managing Interactions with Travel Agents”
Goay Y.-H., Lin C.-T.
- 14:50-15:10** “Sailing to Rainbow: Consolidating the Gay Tourists’ Perspective Relative to Taiwan and Mainland China on Structuring the Selection Model Regarding Cruise Travel”
Chen W.-Y., Hsu P.-F.
- 15:10-15:30** “Developing a Model: An Application of AHP Techniques for Hostels”
Juan P.-J., Juan P.-Y., Chen Y.-S.
- 15:30-15:50** “Prioritizing Senior Travel Assessment Criteria in Travel Services: Using the Analytic Network Process Model”
Hsu S.-C., Tsai C.-H., Lai T.-C.

Thursday, July 4th 14:30-15:50

Room : ATHENS

MINI SYMPOSIUM

“ADVANCES IN STRUCTURAL AND GEOTECHNICAL ENGINEERING”

SESSION I

**Organized by: Assoc. Prof. Dr. D.-P.N. Kontoni
University of the Peloponnese, Greece**

Chairmen: Kontoni D.-P.N., Farghaly A.A.

- 14:30-14:50** “Effectiveness of Tuned Mass Dampers and Spring Dampers in the Seismic Response Control of a Cable-Stayed Bridge including Soil-Structure Interaction”
Kontoni D.-P.N., Farghaly A.A.
- 14:50-15:10** “Seismic Performance of Hybrid Passive Vibration Control for RC High-Rise Buildings including Soil-Structure Interaction”
Kontoni D.-P.N., Farghaly A.A.
- 15:10-15:30** “Tuned Mass Dampers for Seismic Protection of L-Plan High-Rise Buildings including Soil-Structure Interaction”
Farghaly A.A., Kontoni D.-P.N.
- 15:30-15:50** “Efficiency of Open and In-Filled Trenches in Reducing the Railway-Induced Vibrations on an Adjacent High-Rise Building”
Kontoni D.-P.N., Farghaly A.A.

PARALLEL SESSIONS

THURSDAY 16:20 -17:40

Thursday, July 4th 16:20-17:00

Room : NIKI

MINI SYMPOSIUM

“MADM PRINCIPLES”

SESSION IV – MODELING IN SIMULATION AND OPTIMIZATIONS

**Organized by: Prof. Chin-Tsai Lin
Ming Chuan University, Taiwan**

Chairmen: Chin-Tsai Lin, Jung-Ho Lu

- 16:20-16:40** “Country of Origin Affects the Evaluation of Cellphones”
Liang C.-C.
- 16:40-17:00** “A Crowd Wisdom Filtering and Recommendation Technology”
Yang S.-T., Syue J.-T. Li M.-Y., Lin C.-Y.

Thursday, July 4th 16:20-17:40

Room : ATHENS

MINI SYMPOSIUM

“ADVANCES IN STRUCTURAL AND GEOTECHNICAL ENGINEERING”

SESSION II

**Organized by: Assoc. Prof. Dr. D.-P.N. Kontoni
University of the Peloponnese, Greece**

Chairmen: Kontoni D.-P.N., Tavasoli O.

- 16:20-16:40** “Evaluation of the Seismic Response of Slopes due to Spatial Variability of Shear

- Wave Velocity”
Tavasoli O., Nadi B., Kontoni D.-P.N., Kazemi P.
- 16:40-17:00** “Site Investigation and Computational Study of the Effect of Geological Anisotropy and Water Flow on Rock Slope Stability”
Nadi B., Tavasoli O., Kontoni D.-P.N., Tadayon A.
- 17:00-17:20** “Remediation of a Dump Site Heavy Metals Contaminated Soil using Immobilization Technique”
Sumalatha J., Naveen B.P., Malik R.K., Kontoni D.-P.N.
- 17:20-17:40** “Unification of Points of Interest Around the New Archaeological Museum of Patras – Greece”
Martinis S.P., Kontoni D.-P.N.

FRIDAY, 5 JULY, 2018

09:00-13:00: Registration

PARALLEL SESSIONS

FRIDAY 10:00 -11:20

Friday, July 5th

10:00-11:20

Room : NIKI

MINI SYMPOSIUM

**“PARAGON S.A. - THE ORPHEUS (COCKPIT AUDIO)
AND PROPTIM (PRODUCTION FLOOR) SIMULATORS/OPTIMISERS”**

SESSION I – ACTIVE SIMULATOR COCKPIT ENHANCEMENT – ASCENT PROJECT

Organized by: PARAGON S.A., Athens, Greece

Chairmen: Tsahalis H.-T., Tsahalis J.

10:00-10:40

“The Active Simulator Cockpit Enhancement (ASCENT) Project” **INVITED PAPER**

Tsahalis H.-T., de la Casa D., Dias T.

10:40-11:00

“ORPHEUS – 3D Audio System Concept for the Active Simulator Cockpit Enhancement (ASCENT) Project”

Tsahalis J., Tsahalis H.-T.

11:00-11:20

“ORPHEUS – 3D Audio System Implementation and Validation for the Active Simulator Cockpit Enhancement (ASCENT) Project”

Tsahalis J., Avgerinos N., Trypitsidis A., Tsahalis H.-T..

Friday, July 5th

10:20-11:00

Room : ATHENS

“SIMULATION IN AUTOMOTIVE ENGINEERING”

INVITED SESSION

**Organized by : D.V. Koulocheris
National Technical University of Athens**

Chairmen: Vossou C., Tsahalis D.

10:00-10:20

“Heavy Vehicle Dynamic Measurements as Metrics for Road Safety”

10:20-10:40	<i>Koulocheris D., Vossou C., Tsiourva T</i> “A Novel Tank Vehicle Design Approach”
10:40-11:00	<i>Vossou C., Koulocheris D.</i> “Structural Integrity of a 3-D Printed Suspension ARM” <i>Polydoras S., Vossou C., Koulocheris D.</i>

PARALLEL SESSIONS

FRIDAY 12:00 -13.20

Friday, July 5th 12:00-13:20 **Room : NIKI**

MINI SYMPOSIUM

**“PARAGON S.A. - THE ORPHEUS (COCKPIT AUDIO)
AND PROPTIM (PRODUCTION FLOOR) SIMULATORS/OPTIMISERS”
SESSION II – PREDICTIVE COGNITIVE MAINTENANCE DECISION SUPPORT SYSTEM –
PRECOM PROJECT**

Organized by: PARAGON S.A., Athens, Greece

Chairmen: Tsahalis J., Tsahalis H.-T.

12:00-12:40	“The Predictive Cognitive Maintenance Decision Support System (PRECOM) Project” - INVITED PAPER <i>Al-Najjar B. et al.</i>
12:40-13:00	“Production Scheduling Optimisation (PROPTIM)” <i>Tsahalis J., Tsahalis H.-T.</i>
13:00-13:20	“Production Scheduling Optimisation (PROPTIM) Enhancement for Predictive Maintenance and Application within PRECOM” <i>Tsahalis J., Avgerinos N. Trypitsidis A., Tshalis H.-T.</i>

Friday, July 5th 12:00-13:20 **Room : ATHENS**

“ENGINEERING APPLICATIONS”

Chairmen: Stamatelos D.G., Manopoulos C.

12:00-12:20	“Towards the Design of a Multispar Composite Aircraft Wing” <i>Stamatelos D.G., Labeas G.N.</i>
12:20-12:40	“Finite Element Analysis of the Effect of Geometry Characteristics on Bending Stress of Asymmetric Helical Gears” <i>Zouridaki A.E.N., Vasileiou G.</i>
12:40-13:00	“Non –Dimensional Characterization of the Operational Envelope of a Wet Friction Clutch” <i>Rogkas N., Vakouftsis C., Vasileiou G., Spitas V., Manopoulos C.</i>
13:00-13:20	“Fume Hoods CFD Design Optimization” <i>Gkimisis L., Manopoulos C., Kouzilos G., Spitas V.</i>