

Hellenic Society
for Systemic Studies (HSSS)

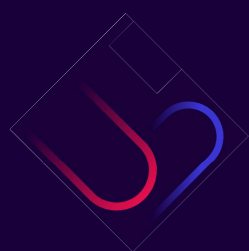


University of West Attica,
Dept. of Accounting and Finance

18th HSSS National & International Conference

THE VALUE OF SYSTEMS THINKING IN OUR **VUCA** WORLD

PROGRAM & ABSTRACTS



Volatility



Uncertainty



Complexity



Ambiguity



www.confe.hsss.eu



Online Attendance



15-17 Dec 2022

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HELLENIC SOCIETY FOR SYSTEMIC STUDIES

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Welcome Note

The Value of Systemic Thinking in Our VUCA World

We would like to invite you to the 18th Hellenic Society for Systemic Studies (HSSS) National & International Conference, joined organized with the Department of Accounting and Finance, University of West Attica. The Conference is online, from 15th to 17th December 2022, Athens, Greece.

The HSSS's annual National and International Conference is held alternately in different cities of Greece in collaboration and/or under the auspices of one or more local Universities or with a contribution of a relevant International or Greek organization.

This Conference is a great opportunity for system specialists from Europe and the rest of the world to meet and emulate each other in order to decompartmentalise the specialist approaches of the different disciplines. Combining theoretical, methodological and practical approaches, systems thinking contributes to the construction of synergies between different disciplines, thus encouraging the development of theoretical models, modelling and decision-making methods, and practical tools at the service of society.

Based on the topic of creativity, the main theme of the double event is to present the dynamic scientific area of "Systemics" with theory and applications in organizations and enterprises across a wide spectrum of both service and production industry sectors.

Given the dynamic nature of this challenging area, Systemics will bridge the gap between theory and practice and will promote the use of effective Methodologies and Multi-Methodologies in managing today's organizational complexity for Organizational Intelligence.

Our interdisciplinary, international community has the scientific systemic tools and powerful specialized software to tackle up-to-date multi-dimensional strategic complex problems and to manage their complexity in different applied areas of practice.

The prominent national and international invited speakers in the scientific program, the exciting professional panels, the professional round table, and the professional workshop will attract the attention of a large number of our colleagues. Further, the members' participation, including the Association Française de Science des Systèmes (AFSCET), The Cybernetics Society (CYBSOC), the Associazione Italiana per la Ricerca sui Sistemi (AIRS), the Hellenic Society for Systemic Studies (HSSS), the Asbl Systèmes & Organisations (S&O), the Sociedad Española de Sistemas Generales (SESSE), the International Federation for Systems Research (IFSR), the International Academy of Systems and Cybernetic Sciences (IASCYS), the World Organisation of Systems and Cybernetics (WOSC) together with renowned consultancy firms of national and international stature, will allow the organization of a very successful and memorable event in the history of HSSS Conferences and EUS Congress.



Who should attend?

- Academics: Communicate your research results with colleagues around the world.
- Members of National and International Organizations.
- Consultants: Present the power of systems thinking, modeling and simulation in your applied, client-oriented work.
- Practitioners: Show modeling and simulation at work in your organizations.
- Graduate students: Share your developing research in a constructive environment.
- Undergraduate students: Have a good experience within a challenging and professional environment.

Athens is the capital of Greece. Its economy is also supported by manufacturing, trade, services and tourism.

Athens is an ideal place for bringing together colleagues from all over the world to promote and exchange ideas, knowledge and experience for the benefit of both organizations and enterprises in effectively meeting the needs of a challenging international community.

Chair for the Scientific Committee

Professor Miltiadis Chalikias,
Department of Accounting and Finance,
University of West Attica,
Greece.

Chair for the Organising Committee

Professor Vasileios Angelis, 1st Vice-President of HSSS,
Department of Business Administration,
University of the Aegean,
Greece.

President of EUS and HSSS

Professor N. Assimakopoulos,
Department of Informatics,
University of Piraeus, Piraeus,
Greece.



Acknowledgements

*The Board of Directors of the
Hellenic Society for Systemic Studies
and
the Organizing Committee of the 18th National & International Conference
would like to thank
all those who have contributed to
ensure the conference come to success;
reviewers, presenters, authors, sponsors,
support team and other conference assistants.*

Sponsors

University of Piraeus
Department of Informatics, University of Piraeus
University of Piraeus Research Center
Department of Accounting and Finance, University of West Attica
University of Peloponnese



Brief Program

Thursday 15th December, 2022

09:30 - 10:15	OPENING CEREMONY WITH SALUTATIONS
10:15 - 11:45	KEYNOTE ADDRESS
11:45 - 12:00	SHORT BREAK
12:00 - 13:30	KEYNOTE ADDRESSES
13:30 - 14:00	LUNCH BREAK
14:00 - 15:30	KEYNOTE ADDRESSES
15:30 - 15:45	SHORT BREAK
15:45 - 17:15	KEYNOTE ADDRESSES
17:15 - 17:30	SHORT BREAK
17:30 - 19:00	PARALLEL SESSIONS

Friday 16th December, 2022

10:00 - 11:30	KEYNOTE ADDRESSES
11:30 - 11:45	SHORT BREAK
11:45 - 13:15	KEYNOTE ADDRESSES
13:15 - 13:30	SHORT BREAK
13:30 - 15:00	PARALLEL SESSIONS
15:00 - 15:30	LUNCH BREAK
15:30 - 17:00	WORKSHOP AND PARALLEL SESSIONS
17:00 - 17:15	SHORT BREAK
17:15 - 19:00	WORKSHOP AND PARALLEL SESSIONS



Saturday 17th December, 2022

10:00 - 11:30	KEYNOTE ADDRESSES
11:30 - 11:45	SHORT BREAK
11:45 - 13:15	PARALLEL SESSIONS
13:15 - 13:30	SHORT BREAK
13:30 - 15:00	PROFESSIONAL PANEL AND PARALLEL SESSIONS
15:00 - 15:30	LUNCH BREAK
15:30 - 17:00	PARALLEL SESSIONS
17:00 - 17:15	SHORT BREAK
17:15 - 19:00	PARALLEL SESSIONS
19:00 - 19:30	PROFESSIONAL ROUND TABLE
19:30 - 20:00	CSAP CERTIFICATIONS
20:00 - 20:30	HSSS & CSAP REUNION



Program Timetable


Thursday 15th December, 2022

09:30 - 10:15	OPENING CEREMONY WITH SALUTATIONS
09:30 - 10:15 	VIRTUAL ROOM THU-1 Opening Ceremony with Salutations <i>Chair: Prof. Vasileios Angelis</i>
	Opening and Salutation by Prof. Vasileios Angelis, Chair of the Conference Organizing Committee and 1st Vice President of HSSS
	Salutation by the President of the European Union for Systemics and President of the HSSS, Professor Nikitas Assimakopoulos , University of Piraeus, Greece.
	Salutation by the Chair of the Conference Scientific Committee Prof. Miltiadis Chalikias , University of West Attica, Greece.
	Salutation by the General Secretary of the European Union for Systemics, Professor Damien Claeys , Université Catholique de Louvain (UCLouvain), Belgium.
	Salutation by Dr. Stergiana Giannakou, 2nd Vice President of HSSS
10:15 - 11:45	KEYNOTE ADDRESS
10:15 - 11:45 	VIRTUAL ROOM THU-1 Keynote Address <i>Chair: Prof. Vasileios Angelis</i>
KN-01	An Introduction to Systems Thinking for Tackling Wicked Problems <i>Gerald Midgley</i>
11:45 - 12:00	SHORT BREAK
12:00 - 13:30	KEYNOTE ADDRESSES
12:00 - 13:30 	VIRTUAL ROOM THU-1 Keynote Address <i>Chair: Panagiotis Kalofonos</i>
KN-02	The Logosofia Thread for Navigating the Labyrinth of VUCA <i>Alexander "Alec" Christakis, Jeff Diedrich</i>
KN-03	A systems thinking approach to accelerating cognitive and emotional development to lead in a VUCA world: a VUCA simulation and course at the U.S. Army War College in 1990. <i>Peter D. Tuddenham</i>
13:30 - 14:00	LUNCH BREAK



14:00 - 15:30	KEYNOTE ADDRESSES
14:00 - 15:30 	VIRTUAL ROOM THU-1 Keynote Addresses <i>Chair: Panagiotis Kalofonos</i>
KN-04	Facing VUCA and RUPT Challenges: The Power of Collective Intelligence. <i>Alexander Laszlo</i>
KN-05	Cybernetic governance of the Peruvian State: An Utopia? <i>Ricardo Rodriguez-Ulloa</i>
15:30 - 15:45	SHORT BREAK
15:45 - 17:15	KEYNOTE ADDRESSES
15:45 - 17:15 	VIRTUAL ROOM THU-1 Keynote Addresses <i>Chair: Panagiotis Kalofonos</i>
KN-06	Why do we Visualise? The WOW! Effect in VUCA World <i>Andreas Maniatis</i>
17:15 - 17:30	SHORT BREAK
17:30 - 19:00	PARALLEL SESSIONS
17:30 - 19:00 	VIRTUAL ROOM THU-1 Extended Abstracts Presentations <i>Chair: Dimitrios Varsos</i>
EA-01	Employees' Job Satisfaction in the Healthcare Sector in Greece <i>Ioannis Katsanakis</i>
EA-02	European Works Councils and Human Resources Management: The case of multinational companies in the pharmaceutical industry <i>Eleni N Triantafillidou</i>
EA-03	Management - leadership in Greek educational organizations: A systemic approach <i>Dimitra Patsi, Stavros Fasoulas, Ioannis Alexiou</i>
EA-04	Systemic Thinking in S.M.E.'s <i>Stavros Fasoulas, Ioannis Alexiou, Dimitra Patsi</i>



17:30 - 19:00 	VIRTUAL ROOM THU-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Rallis Antoniadis</i>
EA-05	The contribution of systemic business strategy approach for studying a centralized procurement authority of the public sector: Systemic multimethodology formulation and the use of dynamic modeling for the optimal decision making of an IT project management office Anastasios Vasileiou
EA-06	Systemic approach in Hellenic Ministry Panagiotis Lepelis-Leftheriotis
EA-07	The Systemic Approach to Complex Systems' Structural and Functional Reconsideration and Optimization: The Case of the N.T.U.A. and the S.A.M.P.S. Dionisia Dragona, Antonios Dragonas
EA-08	A systemic study: Constructing the extremely important essential feature of Co-Comprehension in a functional business environment. Antonios Dragonas, Dionisia Dragona



Program Timetable

Friday 16th December, 2022

10:00 - 11:30	KEYNOTE ADDRESSES
10:00 - 11:30 	VIRTUAL ROOM FRI-1 Keynote Addresses <i>Chair: Dimitrios Varsos, Eleftherios Kakavoulis</i>
KN-07	Invited Keynote: Why can't organizations and governments do systems thinking? <i>Ray L Ison</i>
KN-08	Systems scientists and cyberneticians ought to save democracy <i>Yiannis Laouris</i>
11:30 - 11:45	SHORT BREAK
11:45 - 13:15	KEYNOTE ADDRESSES
11:45 - 13:15 	VIRTUAL ROOM FRI-1 Keynote Addresses <i>Chair: Dimitrios Varsos, Eleftherios Kakavoulis</i>
KN-09	Systemic strategic responses of contemporary businesses facing a turbulent (VUCA) external environment <i>Athanasios (Thanos) Kriemadis</i>
KN-10	Global Business Ethics in Our VUCA World <i>John Thanopoulos</i>
13:15 - 13:30	SHORT BREAK
13:30 - 15:00	PARALLEL SESSIONS
13:30 - 15:00 	VIRTUAL ROOM FRI-1 Extended Abstracts Presentations <i>Chair: Panagiotis Kalofonos</i>
EA-09	Availability and Maintainability Optimization in an Aircraft Military Squadron <i>Maria Makrygianni</i>
EA-10	Diversity Management and Modeling of the Effects of Various Factors on the Activities of a Department: Applied Systemic Methodologies in a chemical company <i>Konstantina Michalopoulou</i>



EA-11	Scientific Thinking – Systemic Thinking - Design Thinking and their methodologies intercorelate in a V.U.C.A WORLD. From caterpillar to butterfly <i>Sophia Ch-Avr Georgiou</i>
EA-12	Systemic approach of an IT company: iSTORM company as a case study <i>Dimitra Choleva</i>
13:30 - 15:00 	VIRTUAL ROOM FRI-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
EA-13	Adoption of an electronic protocol in Tzaneio Hospital applying Systems Theory and applications <i>Maria Koulentianou</i>
EA-14	Managing Diversity and Modeling the Strategy Marketing in a company's viability <i>Aikaterini Sideri</i>
EA-15	Application of Systemic Methodologies in an Internet of Things (IoT) – enabled Infantry Company with the use of DCSYM Systemic Methodology and Vensim Dynamic Simulation Software <i>Stavros Apostolopoulos</i>
EA-16	Using Systemic Methodologies in a Soft Drinks Company <i>Despoina Chatzidaki</i>
15:00 - 15:30	LUNCH BREAK
15:30 - 17:00	WORKSHOP AND PARALLEL SESSIONS
15:30 - 17:00 	VIRTUAL ROOM FRI-1 Workshop: Ukraine War: How Crypto Economy & Intangible <i>Chair: Panagiotis Kalofonos</i>
WS-01	Ukraine War: How Crypto Economy & Intangible Cultural Heritage were affected? A Systemic Approach using new technologies, like Blockchain <i>Nikolaos Zoannos, Pelagia Chourdaki, Panagiotis Georgitseas, Prodromos Iatridis</i>
	Saving a country's cultural heritage is the best pathway to reconstruction of society after a conflict. <i>Pelagia Chourdaki</i>
	A new proposed framework for UNESCO to store the digital data of Intangible Cultural Heritage into Containers of Smart Contracts, using a Decentralized Network. <i>Nikolaos Zoannos</i>
	Were cryptocurrencies used to circumvent financial sanctions? <i>Panagiotis Georgitseas, Prodromos Iatridis</i>



15:30 - 17:00	VIRTUAL ROOM FRI-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
	
EA-17	The systemic approach in career development, in Engineering/ Production and Management Engineering and in the era of the 4th Industrial Revolution (Industry 4.0) <i>Konstantinos Karakiozis, Michail Papoutsidakis, Sofia Asonitou, Efsthathia Papageorgiou, Evangelos Papakitsos</i>
EA-18	Systemic Approaches for implementation of an Energy Management System for hotel building facilities <i>Michalis Panagiotis Bratitsis</i>
EA-19	Design and implementation of a Sustainable System in Central Offices <i>Georgios Michail Karampatos</i>
EA-20	Modeling and Evaluation of the Resilience of Interconnected Infrastructures: A system dynamics approach <i>Sotiris C. Messinis</i>
17:00 - 17:15	SHORT BREAK
17:15 - 19:00	WORKSHOP AND PARALLEL SESSIONS
17:15 - 19:00	VIRTUAL ROOM FRI-1 Extended Abstracts Presentations <i>Chair: Panagiotis Kalofonos</i>
	
EA-21	ORGANIZATION DEVELOPMENT USING CONCEPTUAL SYSTEMS AND SOCIAL NARRATIVES <i>Tatiana A. Medvedeva, Stuart A. Umpleby</i>
EA-22	Modeling and Simulation Methodology for Systemic Thinking in our VUCA World <i>Bernard P Zeigler</i>
EA-23	Postal sector reform and the right to security and confidentiality of communications <i>Eleni Varvaroussi, Aikaterina Papanikolaou, Eirini Gavala</i>
17:15 - 19:00	VIRTUAL ROOM FRI-2 Workshop: Global Business Ethics <i>Chair: Eleftherios S. Kakavoulis</i>
	
WS-02	Global Business Ethics <i>John Thanopoulos, Andreas Drivas, Nikolaos Papazoglou, George Chandrinis</i>
	Global 21st Century Business Ethics <i>Prof. John Thanopoulos</i>
	An uncertain, volatile and complex world in SEARCH of ETHOS <i>Mr Andreas Drivas</i>
	Practical ethical guidelines to survive in the wild workplace <i>Dr Nikolaos Papazoglou & George Chandrinis</i>



Program Timetable




Saturday 17th December, 2022

10:00 - 11:30	KEYNOTE ADDRESSES
10:00 - 11:30 	VIRTUAL ROOM SAT-1 Keynote Addresses <i>Chair: Panagiotis Kalofonos</i>
KN-11	Can a Systemic Anthropocentric Thinking Help the Humanity to Survive and Prosper in a VUCA Environment? <i>Peter Groumpos</i>
KN-12	Preparing the New Generations for the New VUCA World: the Anthropocentric Systemic Thinking Approach <i>Yiannis M. Kalogerakis</i>
11:30 - 11:45	SHORT BREAK
11:45 - 13:15	PARALLEL SESSIONS
11:45 - 13:15 	VIRTUAL ROOM SAT-1 PARALLEL SESSIONS <i>Chair: Panagiotis Kalofonos</i>
EA-24	How does Total Quality Management affect the Sustainability of Health and Fitness Centers? <i>Dimitra Kapnisi, Athanasios Kriemadis</i>
EA-25	Portfolio Selection in Efficient Hybrid Modular, and Self Organised Features Maps Networks <i>Nikos Loukeris</i>
EA-26	Anthropocene and democratic algorithmic machines <i>Theodor Sarafidis</i>
EA-27	Predicting Financial Literacy Level in VUCA World: A Case Study in Greece <i>Vasiliki A. Tzora</i>
11:45 - 13:15 	VIRTUAL ROOM SAT-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
EA-28	Meeting the challenges of a VUCA world through effective interpersonal communication: A holistic approach <i>Maria E. Giannakaki, Stergiani A. Giannakou, Dimitrios S. Varsos, Nikitas A. Assimakopoulos</i>
EA-29	The Role of Organizational Resilience in a VUCA World: A Systems Approach <i>Victoria A. Zgouva, Dimitrios S. Varsos, Nikitas A. Assimakopoulos</i>
EA-30	Systemic Tools for Business Adaptation and Innovation in a VUCA world <i>Rallis Antoniadis</i>



13:15 - 13:30	SHORT BREAK
13:30 - 15:00	PROFESSIONAL PANEL AND PARALLEL SESSIONS
13:30 - 15:00 	VIRTUAL ROOM SAT-1 PROFESSIONAL PANEL <i>Chair: Panagiotis Kalofonos</i>
PP-01	The Value of Systems Thinking in our VUCA World: Aspects of Project Management <i>Theofanis Giotis, Panos Chatzipanos, Fotis Sallas, Christos Rados</i>
13:30 - 15:00 	VIRTUAL ROOM SAT-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
EA-31	Targeting Net Zero <i>Stavroula Chatzigeorgiou, Iliana Christou, Martha Plexida</i>
EA-32	Low-Carbon Economy <i>Iliana Christou, Martha Plexida, Stavroula Chatzigeorgiou</i>
EA-33	Proposal for the management plan of the water delivery system of the premium of Attica, after the awakening of the droughts during the period 1988 – 1993: a systematic approach to preventing hydrological drought/water scarcity <i>Ioannis Drakos, Kristallo Kedra, Vasiliki Drakou</i>
EA-34	System dynamics and modeling in a new dairy product launch in today's VUCA environment <i>Artemi Georgiou Chatzigeorgiou</i>
15:00 - 15:30	LUNCH BREAK
15:30 - 17:00	PARALLEL SESSIONS
15:30 - 17:00 	VIRTUAL ROOM SAT-1 Extended Abstracts Presentations <i>Chair: Panagiotis Kalofonos</i>
EA-35	Applications of Data Collection, Representation and Analysis in Entrepreneurship. <i>Vasiliki Manglara, Alina Degteva, Christos Manglaras, Jenny Pagge</i>
EA-36	Supporting entrepreneurial education through project-based learning <i>Jenny Pange, Stephen D' Alessandros</i>
EA-37	How Digital Nomads affect Corporate Social Performance (CSP) <i>Michael Angelos Michalopoulos, Nicos Sarakasidis, Andreas Alexopoulos, Nicos Sikianakis</i>
EA-38	The role of local authorities in Greece in their region's sustainable development: A systemic approach <i>Andreas Pantazopoulos, Andreas Alexopoulos, Vasilis Angelis</i>



15:30 - 17:00	VIRTUAL ROOM SAT-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
	
EA-39	VUCA, Agile & Systemic Leadership Martha Plexida, Stavroula Chatzigeorgiou, Iliana Christou
EA-40	Flexible and Situational Systemic Leadership Ioannis A. Tsiotsiopoulos
EA-41	School effectiveness and educational change: the role of leadership and human resources Eleni Vlachoudi, Georgios Tsekouropoulos, Kristina Hoxha
EA-42	The systemic approach in identifying and emending organizational dysfunctions Ioannis Vasileios Mitsovasilis
17:00 - 17:15	SHORT BREAK
17:15 - 19:00	PARALLEL SESSIONS
17:15 - 19:00	VIRTUAL ROOM SAT-1 Extended Abstracts Presentations <i>Chair: Panagiotis Kalofonos</i>
	
EA-43	Management accounting systems in the public sector in the context of the New Public Management: Existing Framework and Changes. Hara Pappa, Odysseas Pavlatos, Nikolaos Sykianakis
EA-44	Golden Visa and short term rental housing are shaping the real estate market in Athens post 2008 crisis. Potential impacts on the economic, spatial and social sector and policies that can be designed and implemented to address them. Vasileios P. Thanasouloupoulos, Andreas Alexopoulos
EA-45	Transparency in public procurement using network analysis: Identifying the opportunities for economic operators. Ioannis Fountoukidis, Eleni Dafli
EA-46	The participation of citizens as a factor in the formation and operation of smart cities: The case of Greek cities Pagona-Xanthi Psathopoulou, Vasileios Panagou, Andreas Alexopoulos
17:15 - 19:00	VIRTUAL ROOM SAT-2 Extended Abstracts Presentations <i>Chair: Eleftherios Kakavoulis, Dimitrios Varsos</i>
	
EA-47	A breakthrough in Facebook Ads optimization through Systemic Dynamics & Artificial Intelligence Algorithms Konstantinos Koutsantonis, Nikolaos Bakas



EA-48	Application of Systemic Methodologies in a Telecommunications Company with the aim of Establishing and Operating a Quality Control Department to Minimize the number of its Subscribers facing a telecommunications problem <i>Konstantinos Fatolas</i>
EA-49	Systemic Approach on the development of a Business ICT Team on a Retail Organization <i>Alexandros Miaris, Anastasios Riggas, Nikitas Assimakopoulos</i>
EA-50	Evaluating Information Technologies / Information Systems (IT/IS) within a strategic business context <i>Ioannis Katsanakis</i>

19:00 - 19:30	PROFESSIONAL ROUND TABLE
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19:00 - 19:30 	VIRTUAL ROOM SAT-2 PROFESSIONAL ROUND TABLE <i>Chair: Dimitrios Varsos</i>
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PRT-01	Organizational viability in a VUCA world: A systems approach <i>Dimitrios S. Varsos</i>
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19:30 - 20:00	CLOSING CEREMONY
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19:30 - 20:00 	VIRTUAL ROOM SAT-1 CLOSING CEREMONY <i>Chair: Prof. Nikitas Assimakopoulos</i>
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20:00 - 20:30	HSSS & CSAP REUNION
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20:00 - 20:30 	VIRTUAL ROOM SAT-1 Reunion of HSSS and CSAP Members (in Greek language) <i>Chair: Prof. Nikitas Assimakopoulos</i>
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Keynote Addresses



KN-01

An Introduction to Systems Thinking for Tackling Wicked Problems

Prof. Gerald Midgley

Centre for Systems Studies
University of Hull, UK

ABSTRACT

We are increasingly facing 'wicked problems'. They are stubborn, challenging and often have to be managed rather than solved. They frequently involve interlinked issues, multiple agencies with different perspectives, conflict over desired outcomes or the means to achieve them, power relations making change difficult, uncertainty about the likely effects of proposed changes, and scepticism about the possibility of beneficial change. While traditional scientific, policy and management approaches can make a useful contribution, we need something more than these if we want to gain a bigger picture understanding of how to act in the face of wicked problems. Systems thinking can help.

In this talk, Gerald Midgley will introduce a framework of systems thinking skills, plus a variety of systems ideas and methods, that can help people put these skills into practice. He will illustrate the use of the methods with a number of examples from social policy, natural resource management and community development projects with public, private and voluntary sector organisations in the UK, New Zealand and Nigeria. In this way, he will show how we can begin to get a better handle on wicked problems.

SCHEDULING:

Thursday 15th December, 2022	10:15 - 11:45	VIRTUAL ROOM THU-1	EN
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KN-02

The Logosofia Thread for Navigating the Labyrinth of VUCA

Mr Alexander "Alecos" Christakis, Ph.D.

21st. Century Agoras, Greece & USA

Mr Jeff Diedrich, M.A.

21st. Century Agoras & Michigan Department of Education, USA

ABSTRACT

Finding ourselves in a labyrinth of volatility, uncertainty, complexity, and ambiguity, we must realize simple solutions don't exist. False promises of quick fixes intensify the volatility and perpetuate the current system. Navigating the labyrinth requires collective wisdom and effective, iterative processes. The Logosofia Thread results from the relationship among six principles accumulated from the application of the methodology of Structured Democratic Dialogue (SDD) for more than fifty years. It enables intersubjective teams of stakeholders to efficiently co-construct knowledge representations that are systemic, graphic, effective, and ephemeral for navigating the Labyrinth of Volatility, Uncertainty, Complexity, and Ambiguity.

SCHEDULING:

Thursday 15th December, 2022	12:00 - 13:30	VIRTUAL ROOM THU-1	EN
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**KN-03****A systems thinking approach to accelerating cognitive and emotional development to lead in a VUCA world: a VUCA simulation and course at the U.S. Army War College in 1990.****Dr Peter D. Tuddenham**

President, College of Exploration

ABSTRACT

The acronym VUCA, Volatility, Uncertainty, Complexity, Ambiguity was created in the late 1980s at the U.S. Army War College in Carlisle, Pennsylvania, USA. In 1987 the Department of the Army listed essential skills for the executive and strategic level leaders in a VUCA environment as: 1. Systems Understanding, 2. Envisioning and Anticipating, 3. Proactive Thinking, 4. Scanning, 5. Problem Formulation, 6. Reflective Thought, and 7. Critical Self Evaluation. At that time, I was a member of a team of Army and contracted researchers participating in a 5-year project: "Army Executive Development Research Project 1987-1992 ". Task 4 of the project: "Strategy for Sequential and Progressive Executive Development" was to develop a technology for a simulation and creative problem-solving course that compresses and accelerates individual cognitive and emotional capability of potential 3 and 4 star generals. A number of systems approaches were applied at multiple levels of process and content. The individual cognitive development and organizational framing was based on the work of Dr. Eliot Jacques, the creator of Stratified Systems Theory (SST) and Gillian Stamp Ph.D. SST describes levels and modes of individual cognitive complexity capability and relates it to organization complexity by level. The emotional experiences were based on the work of Robert Kegan's stages of personality development. Also taken into consideration was the "individual preferred processing systems" as described by the Myers-Briggs Type Indicator. An important aspect of the design and the content of the course was based upon creativity and design courses developed by Buckminster Fuller while a professor at Southern Illinois University (SIU) and further developed by Professor Richard Archer also from SIU and Steve Stewart Ph.D. of the U.S. Army Research Institute. The course was co-designed as a "Design Inquiry" as described by Bela Banathy Ph.D in his work on Instructional Systems Design. This approach helps break conceptual sets, not rush to judgement and incorporate many views.

KEYWORDS: Systems thinking, Leadership, Strategy

SCHEDULING:

Thursday 15th December, 2022	12:00 - 13:30	VIRTUAL ROOM THU-1	EN
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KN-04

Facing VUCA and RUPT Challenges: The Power of Collective Intelligence.

Dr. Alexander Laszlo, PhD

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ABSTRACT

The scientific observation of life in environments defined as volatile, uncertain, complex, and ambiguous (known as VUCA environments/conditions/dynamics) has led to a similar patterning of observations at personal/psychological levels and interpersonal/sociological levels. However, difficulties arise when the observations from science are mapped directly onto psycho-social phenomena with an expectation of one-to-one correlation. The commensurate rise of behavioural considerations under conditions defined as rapid, unpredictable, paradoxical, and tangled (known as RUPT situations/experiences/contexts) increasingly calls for applicable lessons from the sciences — and especially from relational quantum field theory — to help navigate the dynamic complexity of life. By drawing on insights emerging from the observation of complexity dynamics at both the micro-scalar level of the quantum world, and the macro-scalar level of the supra-galactic world, we can explore the mindset, heartset, and skillset relevant to navigating complexity at the meso-scalar level of the human world. Systemic tipping point and trim tab dynamics can be elucidated as attractors and affordances for creative emergence, rather than through reliance on mechanistic tools of regulation and control.

KEYWORDS: VUCA, RUPT Challenges, Collective Intelligence

SCHEDULING:

Thursday 15th December, 2022	14:00 - 15:30	VIRTUAL ROOM THU-1	EN
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KN-05

Cybernetic governance of the Peruvian State: An Utopia?

Prof. Ricardo Rodriguez-Ulloa, MA, MUBPM,
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ABSTRACT

This presentation shows a proposal to govern the Peruvian State under the umbrella of management cybernetics, using the viable system model (VSM) and enriched with diverse soft and hard systemic approaches and technologies to cover the complexity of Peruvian reality. Four defined perspectives were adopted to understand the complexity of Peru: the sectoral view, the regions view, the river basins view and the macro regions view. Thus Peru is seen as a system in focus, defining, for each of these four perspectives, the five systems that VSM has. The application of the VSM in each perspective serves in two modes: To do systemic diagnosis and systemic design, according to the respective perspective. Finally, an integrative analysis and reflection is done considering the four perspectives, to analyze the viability of the VSM approach in the governance of the Peruvian State

SCHEDULING:

Thursday 15th December, 2022	14:00 - 15:30	VIRTUAL ROOM THU-1	EN
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**KN-06****Why do we Visualise? The WOW! Effect in VUCA World****Dr. Andreas Maniatis, PhD**

Sales & Business Development Director
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ABSTRACT

We, Homo Sapiens, are by gene coding a visual biological species. Vision is by far our most important sense and has thus helped us dominate the planet. But what does the phrase "Data Visualization" sound like to the uninitiated? "Data" conjures up images of computers and statistical analysis, whereas Visualization is more accessible but vague enough so as to be unclear. One may wonder: Is Data Visualization new, overflowing with cutting-edge tools and technology, or is it as old as human communication itself? Well, Data Visualization may be rooted in ancient times and have a rich history over the last couple of centuries, but the field is transforming in the technological age, and transforming the world along with it. Big Data Analytics and Artificial Intelligence, along with Machine Learning and Deep Learning, have become the major scientific and technological catalysts that have successfully set in commotion a whole world of new, relative applications. So, we Visualize, because:

- Visualization is the most secure path towards achieving true Business and Organizational Intelligence, both in terms of entrepreneurship, as well as of technology,
- Story-telling, Narration, and Comprehension are greatly augmented when Visuals are included and are wisely and carefully used, and finally,
- Data Visualization has been a tremendously successful tool supporting Exploratory Data Analysis (EDA) at all levels, thus promoting the analysis and understanding of data in every single domain and area of application.

But despite the fact that the three pillars mentioned above form a more or less expected and straightforward path towards understanding and interpreting data, using them in various everyday applications (ranging from simple sales reports to autonomous car driving to promoting secure decision making) is anything but trivial. We will herein work with history, reference examples, and case studies that will help us adopt a recommended Systemic Data Visualization process, specifically adapted to address Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) issues that characterize the data used for effective decision making.

SCHEDULING:

Thursday 15th December, 2022	15:45 - 17:15	VIRTUAL ROOM THU-1	EN
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KN-07

Invited Keynote: Why can't organizations and governments do systems thinking?

Prof. Ray L Ison, PhD

Professor of Systems The Open University,
President IFSR
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ABSTRACT

This talk will explore the features of organizations, including governments that preclude, or sabotage attempts to engage collectively and individually in systems thinking. Building on analyses by Ison and Straw (2020) and work within various organizational settings some of the constraints to, and possibilities for, doing systems thinking will be discussed. Audience members will be asked to use the metaphor of antidote to suggest ways to transform the current situation with respect to fostering and institutionalising STiP (systems thinking in practice).

SCHEDULING:

Friday 16th December, 2022	10:00 - 11:30	VIRTUAL ROOM FRI-1	EN
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KN-08

Systems scientists and cyberneticians ought to save democracy

Dr Yiannis Laouris, MD, PhD (Neurophysiology), MS (Systems Eng)

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ABSTRACT

Starting from the first multi-cellular organisms, it took evolution 600 million years to “create” us. It then took us about 6,000 years to develop our civilization. Less than 3,000 years we invented systems that guided us to govern ourselves. But, very recently, what we call “democracy” became established. During these recent 100-200 years, we have also made tremendous discoveries and inventions that gave us unprecedented abilities to master many of the physical powers around us. The problem we are now facing is how to protect ourselves from ourselves. Those of us living today are the luckiest (or the unluckiest) humans who have ever lived. The technological evolution moves at speeds incredibly faster than biological evolution and our ability to manage and harness our own powers. Humanity’s problems are far too complex for any single human brain to handle. Also, the time left is limited. In this talk, we will discuss the role and responsibility of systems science and cybernetics in solving contemporary socio-technical challenges, especially as we approach the singularity.

SCHEDULING:

Friday 16th December, 2022	10:00 - 11:30	VIRTUAL ROOM FRI-1	EN
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KN-09

Systemic strategic responses of contemporary businesses facing a turbulent (VUCA) external environment

Prof. Athanasios (Thanos) Kriemadis

University of Peloponnese, Greece.
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ABSTRACT

Ansoff, who was considered by many business experts as the "Father of Strategic Planning and Strategic Management", has stated that the external environment has become more novel, complex, and unpredictable (VUCA) and as the environmental turbulence levels increased, management developed and implemented real-time strategic management systems. In a more stable and less turbulent external environment, the positioning systems, such as long-range planning, strategic planning, and strategic posture management, are adequate and very effective. However, when turbulence levels are high (VUCA), a real-time strategic management system is needed to ensure an effective strategic response. The purpose of this presentation is to explain the mechanisms of real-time strategic management systems, according to Ansoff, which are appropriate in a VUCA external environment, such as (a) Strategic issue management (Strong and Weak signal issue management), and (b) Strategic surprise management.

SCHEDULING:

Friday 16th December, 2022	11:45 - 13:15	VIRTUAL ROOM FRI-1	EN
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KN-10

Global Business Ethics in Our VUCA World

Prof. John Thanopoulos, M.Sc., Ph.D.

Department of Business Administration, University of Piraeus
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ABSTRACT

If one observes the world-wide evolution of the social and entrepreneurship process of the last fifty years, globally, he will witness the change from a stockholder direct benefit and a self-centered profit-oriented approach of those in "power" to a socially minded thinking for the betterment of all people. This is a systemic phenomenon supporting the business era of true creativity which aims to replace past governmental roles and is based on a philosophical realization of values that existed from Ancient Greece to Confucius-related concepts. The magnitude of changes manifests the depth of the modern era business reality where, for example, Walmart, the largest world-wide company, has as sales more than twice the Greek GNP and employs only 2.2 million persons. Corporations like Walmart must have in-depth business ethics understanding, deontology of actions, and well-pronounced corporate governance codes. One will question if Greece, as a country, employs similar processes. Does it need legal actions to implement ethical behaviors? What about, in our today's global business reality, the ethical (and legal) issues from Denmark to Egypt? Thus, after a brief summary, the aim of the key-note address is to outline the global last fifty years socio-economic transition, its repercussions, its relation to human creativity, expected social changes, main statistics and support data, conclusions.

KEYWORDS: Business Ethics, Systemic-Global Business, Ethical Behaviors

SCHEDULING:

Friday 16th December, 2022	11:45 - 13:15	VIRTUAL ROOM FRI-1	EN
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**KN-11****Can a Systemic Anthropocentric Thinking Help the Humanity to Survive and Prosper in a VUCA Environment?****Prof. Peter Groumpos**University of Patras, Patra, Greece
groumpos@ece.upatras.gr**ABSTRACT**

Today the whole world is phasing with an unprecedented set of problems never had before. Challenging and difficult problems on all aspects of our Society. One of the greatest problems we face today is how to adjust our way of thinking to meet the challenge of an increasingly complex, rapidly changing, volatile, uncertain, complex, and ambiguous (VUCA) world. In this keynote speech the issues and needs of the Society are addressed and examined when the components of VUCA are considered. VUCA was originally coined in the late 80's by the US Army War College to characterize the post-Cold War era. They are discerningly foreseen and accurately captured four prevalent and inherent characteristics of our current world: Volatile, Uncertain, Complex, and Ambiguous. This framework has been subsequently leveraged in the business field as it defines well today's chaotic, turbulent, unstable, and rapidly changing environment. Systems Thinking is a problem-solving approach that examines the relationships between functions and/or decisions in an organization and/or "scientific field" (health, business, energy, agriculture....). Systems Thinking is powerful because it enables you to predict the consequences of a "potential action". However, it is still relatively unknown, very little studied, largely underused, and even less mastered by leaders, scientists, researchers, and organizations. This is unfortunate or a blessing opportunity to study these problems from a new method that of the "anthropocentric approach", having the human in the center of "all activities". The approach will be referred as the Systemic Anthropocentric Thinking (SAT) and brings four (4) complementary capabilities that together enable to address today's challenges from a VUCA world. These are the ability to see a whole (holism), to integrate different points of view (pluralism), to reflect on fact and value judgements (criticism) and overall human supervision (humanization). Ultimately, the SAT approach empowers you to solve problems so that they stay solved. Instead of offering quick-fix solutions that work only in the short term, SAT helps you make decisions that benefit the society in the long run. The keynote speech will analyze all the above in a systematic way and emphasizes if and how the SAT approach can help the society and especially business to survive and prosper in a VUCA environment.

SCHEDULING:

Saturday 17th December, 2022	10:00 - 11:30	VIRTUAL ROOM SAT-1	EN
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KN-12

Preparing the New Generations for the New VUCA World: the Anthropocentric Systemic Thinking Approach

Dr Yiannis M. Kalogerakis

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ABSTRACT

Each generation has been greatly influenced in their thinking by events of their time and by the teachings of teachers at all levels. As events differ greatly from generation to generation, so should the training of young professionals, both in academia and at their workplaces, must adapt and cater for the future. It is our obligation to draw from our experiences and equip the new generations with the required skills to excel personally & professionally. In this Keynote Address, several practical tips will be presented, all based on Anthropocentric Systemic Thinking, that will assist the young professionals to excel personally & professionally.

KEYWORDS: Anthropocentric Systemic Thinking Approach

SCHEDULING:

Saturday 17th December, 2022	10:00 - 11:30	VIRTUAL ROOM SAT-1	EN
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Workshops

WS-01**Ukraine War: How Crypto Economy & Intangible Cultural Heritage were affected? A Systemic Approach using new technologies, like Blockchain****Mr Nikolaos Zoannos, PhD Candidate**

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ABSTRACT

Since the war outbreak in Ukraine, we have traced rapid changes in many sectors. For example, we have to deal with the global increase in the price of electricity, natural gas, sunflower oil, animal foods, fertilizers, milk and many other daily products. So, how has a war between only two countries affected so many products on a global level? The global economy is based on product imports and exports from all over the world. For example, in 2020 over 1/4 of Greece's sunflower oil supply came from Ukraine and at the same time Greece's olive oil exports to Russia reached 2.5% in demand. In 2021, over 40% of natural gas supply for the German Industry was provided from the exports of Russia. Thus, we can conclude that the global economy is a complicated System, in which each country participates as an essential part (Sub-System) of this System. Every change in the behavior of a Sub-System affects its relationships with the other parts of the System, and at the same time is being affected by those changes (the Volatility of the System). When such changes are sudden and violent, the System does not have the necessary time to be adjusted, so a chaos or an instability in the relationships between the Sub-Systems can be observed instantaneously. However, as time passes, the Sub-Systems proceed with the necessary self-regulatory actions so as to reassure their viability into their new environment. We, therefore, proceeded with the study of the changes that had occurred in the crypto-economy, but we also discovered that over 50 TB of digital data concerning Intangible Cultural Heritage (ICT) were in danger to be lost due to this war. So, the purpose of this Workshop is to present how the crypto economy was diminished due to the isolation from the internet of a certain population of users and how UNESCO can use new technologies (like the smart contract of Blockchain Technologies) to store the global ICT in such a way that is shielded against such turbulent changes.

Saving a country's cultural heritage is the best pathway to reconstruction of society after a conflict.*By Pelagia Chourdaki*

Certainly, when a war is fought the protection of cultural heritage is not the first thought for action that comes to the fore. People, infrastructure, economy come first. However, the protection of cultural heritage during the ongoing destruction of Ukrainian culture by Russian forces is aimed at destroying Ukraine even if Ukraine wins the war, because the loss of its cultural heritage means the loss of its identity and history. On 29/8/2022 are verified by UNESCO 183 damaged cultural sites and the SUCHO volunteer program is carried out and have already managed to archive 5000 websites and 50 TB Ukrainian cultural heritage digital content, to prevent these websites from going offline due to the Russian invasion. Cultural heritage includes tangible culture heritage which has a physical presence (such as buildings, monuments, archaeological remains, historic places, books, works of art, and artifacts) and intangible culture heritage (ICH) that commonly defined as not having a physical presence (traditions and living expressions inherited from ancestors and passed on to descendants such as cultural practices, oral traditions and language, skills, techniques and knowledges including dance, stories, crafts, medicines, designs and even digital heritage). The cornerstone when we refer to ICH is the UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (2003) that has been ratified, approved or accepted by 193 States (June 2019). It is an international framework text that enables the stakeholders of the ICH (bearers, communities, administration and scientists) to design plans and actions to safeguard and highlight the ICH. The Convention establishes list(s) at national level (National Inventories) and at international level (Representative List of the Intangible Cultural Heritage of Humanity & List of Intangible Cultural Heritage in Need of Urgent Safeguarding). According to article 12 of the above Convention, each State Party can adopt different approaches to inventorying in one or more national lists of its present ICH in its territory and these lists should be regularly updated. In Greece the "National Inventory of the Intangible Cultural Heritage of Greece" provides an authoritative and up-to-date picture of the ICH of Greece. The aim of this presentation is to demonstrate that only one formal and unique way of recording the ICH should be followed by all UNESCO State Parts at national level, because the Convention provide enough flexibility to determine how to be build up the national inventories in their own standards. Moreover, these records should be stored in a system that is reliable and not at risk of any physical destruction or armed conflict, as advanced blockchain technologies served.

A new proposed framework for UNESCO to store the digital data of Intangible Cultural Heritage into Containers of Smart Contracts, using a Decentralized Network*By Nikolaos Zoannos*

UNESCO has already defined the procedure which must be followed when a country wants to store a new element of its Intangible Cultural Heritage (ICT) in the Global Heritage List. For each element, the data and the metadata are different. For example, when we want to store a folk dance, consequently we will need to store a video file (mpeg-4, mpeg-7 etc.) demonstrating the steps of the dance and any dance figures, a music file (mp3, wav etc.) with the tunes, many photo files (jpeg, gif etc.) depicting the costumes and the dancers' expressions, and in some cases we also need to store text files (txt, doc etc.) including either the historical review of this dance or some of the dancer's interviews or the music sheet of this song or the lyrics etc. But what data do we need to store when the element is, for example, the construction of a building using stones? In this case, we will have to



store a video file (mpeg-4, mpeg-7 etc.) where a technician will explain the procedure followed, a text file (txt, doc etc.) which will contain the steps of this construction, and occasionally we will also have to store some photo files which will depict the problems that occurred due to inappropriate construction techniques and methods. Based on these cases, we can conclude that there is a need of a specified framework which will define the data and the metadata that must be recorded for each category of elements separately. Also, following the literature review, we have traced that each country is responsible for storing the data of its ICT in ftp servers, which are usually stored in Libraries, Museums, Archives (LAM) or in facilities owned by the Ministry of Culture. This centralized way of storing such sensitive data has been approved as the biggest error of our century. The reason behind this is that when the war began few months ago, almost 50 TB of data (related with the Ukrainian ICT) were in danger of being lost. Those data were saved the last minute by a project of volunteers known as "Saving Ukrainian Cultural Heritage Online – SUCHO". But can we trust the preservation of world heritage in individual efforts or half measures instead of taking immediate and proactive actions? In our presentation, we will explain how smart contracts can be developed separately for each element of ICT, how those contracts can be categorized into containers, depending on the kind of element of ICT, and how those containers are going to be stored in a Blockchain which must be deployed over a Decentralized Network, where the nodes of this network are going to be stakeholders from all over world (like Ministries of Culture, Libraries, Local Cultural Associations etc.)

Were cryptocurrencies used to circumvent financial sanctions?

By Panagiotis Georgitseas, Prodromos Iatridis

While Russia was invading in Ukraine on February 2022, worldwide press had already identified the potential impact of cryptocurrencies on the sanction restrictions imposed on Russia. Cryptocurrencies use the blockchain technology and operate in peer-to-peer networks which means that are not subject to any central authority and there is no intermediary. For those reasons American government officials and other experts were aware that cryptocurrencies could offer an opportunity for Russia to avoid sanction restrictions and continue it's trading without using dollars, taking into consideration that Russia had all the necessary cryptocurrency-related tools. Almost 7 months since the invasion and Russia does not seem to rely on cryptocurrency trades to evade sanctions. According to Wall Street Journal days after the invasion, and the daily ruble trading in cryptocurrencies reached the amount of 6.6 billion rubles (\$46m). However, quickly dived to 1 billion rubles (\$7m), and since August 2022 fluctuates from 10s to 100s millions of rubles (Lurie, 2022). The president of Russia seems to focus on establishing a new financial network by promoting SPFS (System for Transfer of Financial Messages) and MIR payments which are the main competitors of SWIFT and Visa/Mastercard respectively. This paper aims to investigate the reason why cryptocurrencies were not used to fund the war as expected.

SCHEDULING:

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-1	GR
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WS-02

Global Business Ethics

Prof. John Thanopoulos, Ph.D.

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Dr Nikolaos Papazoglou

National and Kapodistrian University of Athens
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Mr George Chandrinos

National and Kapodistrian University of Athens

ABSTRACT

Global 21st Century Business Ethics

By Prof. John Thanopoulos

This paper starts by discussing our Universe and our Earth realities and after addressing some philosophical issues, corporate size (and so on) it focuses on:

- (a) The "Environment" as it affects corporate culture and is affected by it,
- (b) The "Corporate Culture" and its implications of leading to corporate governance,
- (c) Furthering the analysis of Corporate Governance, necessary analysis of the Operation Manuals is presented, and,
- (d) The fact that the Environment, the Corporate Culture, the Corporate Governance, and the Operation Manuals become key elements of the Code of Business Deontology and Business Ethics.

At this point the Code of Business Deontology and Business Ethics becomes central to our attention, as it relates to industry, corporate size, period of reference and local realities. Actually it capitalizes on the present enterprising options of socially interactive realities, legal matters, educational propositions, information technology (IT), artificial intelligence (AI), immediacy of results, art-related implications, across border influences, financial repercussions, other discipline influences, labor union predispositions, governmental restrictions, and so on.

The previously mentioned concerns are depicting corporate business ethics realities, which in the form that we presently experience are less than 100 years old and expected to significantly change our life styles and theo-philosophical positions. Obviously, in the process this presentation offers a stream of advices towards personal self-actualization and making the world a better place to live through a series of undertakings and systemic vision of potential results.

An uncertain, volatile and complex world in SEARCH of ETHOS

By Mr Andreas Drivas

The politician (Evangelos Benizelos), focuses on the multiple realities we experience, showing that Western reality does not have universal acceptance. Conflicting realities are struggling for vital space even with violence. At the same time, the cultural and ethical



values, active pillars of western societies, face successive crises (economic, health, energy, asymmetric threats and complex security issues) and have difficulties in managing internal contradictions.

News agencies, everyday report significant disasters, like the sabotage against the natural gas pipelines (Nord stream 1, 2). They also report the devastation in Florida U.S.A. due to hurricane Ian, resulting in two million households suffering from lack of electricity.

General Mark Hertling, shows us the extremely violent war in Ukraine.

The poet (Dionysis Savvopoulos), insists: Human life is the absolute value, but only if it is accompanied by dignity.

Are there coherent elements in these events that can be evaluated to a systemic analysis? Can we use in this analysis, words like Ethos, Respect, and Social Perspective? Not only in a theoretical environment that can be easily controlled, but acting in the real world.

ETHOS IN ACTION

Practical ethical guidelines to survive in the wild workplace

By Dr Nikolaos Papazoglou & George Chandrinos

Are there specific preconditions that lead us to unethical actions? Can these factors be handled by individuals or are they asserted by the external environment? Do we have culture-specific techniques to construe the lack of ethical behavior and ambiguity? All the above-mentioned questions are thoughts that many people tackle in their life. This part of the panel will categorize all the perils that lead to a lack of ethical actions and share tools that will guide us to a decision process towards ethical behavior. Knowing ourselves, helps us identify our values, commit to living with them and develop the right social attitude. Applying ethical strategy models and creating the appropriate organizational culture at the workplace can be of great importance to managers who want to become role models.

SCHEDULING:

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-2	GR
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Professional Panel



PP-01

The Value of Systems Thinking in our VUCA World: Aspects of Project Management

Mr Theofanis Giotis, BA, MSc, PhD c., CSAP

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ABSTRACT

During the last 30 years, project management has attained a primary place in the evolution of management theory and practice. Concurrent with the evolution of the project management discipline has been a systems approach to managing change through project-based work. This approach involves a holistic view of the envisioned change, encompassing all elements, components, interdependencies, and environmental factors associated with the required change. Such a view allows redefining problems to more realistic dimensions, analyzing, synthesizing, improving through feedback, and finally verifying the alternative courses of action in the decision process. If project management is viewed in its systems context, it inherently contains a set of sub-systems that make up the larger system. The effectiveness of that larger system depends on the effectiveness of the supporting subsystems individually, as well as how these subsystems are synergized into the larger system as it functions as an entity. It is the way in which a project management system operates as an entity in its environment, that ultimately determines the success or failure of project management in the organization. In this presentation proven principles and practices of setting and navigating these subsystems will be presented, namely the human, the resource, the managerial framework, and the value delivery subsystems. Both the challenges that practitioners face due to our VUCA world environment and the principles of project management that need to be encompassed by the above project management subsystems, for successful delivery of the envisioned benefits, will be presented in brief.

SCHEDULING:

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-1

GR



Professional Round Table

PRT-01**Organizational viability in a VUCA world: A systems approach****Mr. Dimitrios S. Varsos, MSc**

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ABSTRACT

As organizations enter an epoch of concatenated crises, it has become progressively more difficult for decision makers to accurately anticipate the consequences of their decisions, over the long run. The complex interactions between the various social-cultural, legal and regulatory, economic, political, environmental, ethical, demographic, and technological forces that influence modern organizations, engender conditions with chaotic properties that are neither intuitive nor linear. Problematic issues that appear in this environment are often separated from the conditions that contribute to their emergence in both space and time.

The acronym VUCA has gained traction in recent years, to describe this turbulent environment. VUCA is short for volatility, uncertainty, complexity, and ambiguity. Each one of these conditions can give rise to issues that are difficult to interpret, respond to, and plan for. Together, they create an environment that can be characterized by a multiplex of situations with no clear cause-and-effect relationships that give rise and propagate a perpetual confusion. In this context, organizations need to embrace a solution-based approach with which to address the complex issues that are a consequence of the VUCA qualities that impact their structures and functions. Moreover, they need to mitigate the risks that are associated with this level of complexity, through sound change management practices. In this framework, change needs to be approached as a structured process through which one seeks to challenge prevailing paradigms and to identify alternative strategies and solutions. It is not uncommon, however, to identify situations in which this process is undermined by the applications of traditional methods and tools that rely solely on analytical thinking. Application of analytical thinking involves the determination of the meaning of what is studied in the context of a reductionist approach: reducing the whole into its constituent elements, understanding each element separately, and aggregating understanding of the individual elements into an understanding of the whole. Given the network of interactions that exist among the interdependent forces that contribute to convoluted issues, application of the reductionist method typically results in the loss of the essence of both the issue that is of interest, as well as that of the individual forces that are responsible for its emergence. Hence, convoluted issues lack clarity, and decision makers the ability to align the organization's operations in a manner that is congruent to its strategic direction. Systems thinking is fundamentally different from the reductionist method in that it focuses on the understanding of how and why the various elements affect one another within a defined unified whole. A systems approach concentrates on the understanding of the interactions of the constituent elements of a system that produce a behavior, rather than the actions of the isolated parts. A systems approach provides powerful methods and tools that are designed to generate and organize information about dynamic situations that are neither intuitive nor linear. Moreover, a systems approach is extremely useful in tackling "messy" problems that are ill-defined or unknown, requiring significant judgments that involve multiple stakeholders, by re-framing the problem in anthropocentric ways.

This round table discussion will focus on the application of a systems approach as a means



to explore the relationship between the characteristics, attributes, and structural features of a VUCA world, and the manner through which system thinking may be embraced by decision makers, as a means of fortifying the organization's viability.

SCHEDULING:

Saturday 17th December, 2022	19:00 - 19:30	VIRTUAL ROOM SAT-2	EN
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Presentations Extended Abstracts

**EA-01****Employees' Job Satisfaction in the Healthcare Sector in Greece****Dr. Ioannis Katsanakis, PhD**Assistant Professor, University of Piraeus
ikatsana@unipi.gr**ABSTRACT**

Job satisfaction theories play a vital role in human resource management and organizational behavior. They demonstrate that job satisfaction of employees is indistinctly connected with their efficiency. Employees are the most important resource that an organization has, and keeping them satisfied can enable the organization to achieve high organizational performance. In Greece, especially during the economic crisis of the past years and the health crisis of the past months, several work-related factors, such as financial rewards, job stability, job security, work and family life balance, etc., have affected employees' job satisfaction. The purpose of this research is to explore employees' job satisfaction in the healthcare sector, as well as to examine the factors and incentives influencing their performance. Based on value-percept theory as well as theory regarding employees' positive and negative emotions and moods and relevant research, this paper examines whether the employees in the under-review sector are satisfied, which are the different facets that together generate overall satisfaction, as well as whether the employees' responses differentiate based on the sub-sectors they work (hospitals, health centers, pharmacies, diagnostic centers, etc.) or their demographic characteristics (i.e. gender, age, educational background etc.). Moreover, it examines the effect of job satisfaction in the under-examination sector's employees' performance. In order to accomplish the aforementioned research objectives, a questionnaire based on the Job Satisfaction Survey is used and a sample of 148 responses are collected. Subsequently, several statistical analyses, such as factor analysis, hypotheses tests and correlation tests, are conducted. The results of this research highlight the importance of certain job satisfaction facets that management of healthcare organization can take under consideration in order to improve job satisfaction leading to employees' high performance.

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	GR
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**EA-02****European Works Councils and Human Resources Management: The case of multinational companies in the pharmaceutical industry****Ms Eleni N Triantafyllidou, LLM, MBA, PhD candidate**Democritus University of Thrace
elntria@gmail.com**ABSTRACT**

Multinational enterprises are a source of innovation in the dissemination of new human resource management policies and labor relations management practices. The European Works Councils (EWCs) play a vital role in shaping labor relations within multinational companies as bodies representing the European employees of a company. Regarding EWCs, there are several opinions and positions related to their ability to assist the effective management of human resources within multinational companies. Practical experience argues that the management has discovered EWCs as a helpful tool in the pursuit of their business and HR objectives. Much of what is known about management approaches to EWCs has emerged from efforts to assess the potential benefits of EWCs for the management of multinationals. A general list of opportunities or benefits has long been established and remains largely uncontested. These benefits are largely focused on EWCs as an HR tool, perhaps useful for enhancing communication between employees and management, instilling a corporate culture, or facilitating organizational change. EWCs are conventionally considered labor-friendly institutions but this does not mean that they cannot be used simultaneously as employer-friendly HRM tools. It must be recognized that EWCs are not the exclusive domain of employees and can just as easily be used to incorporate new HRM practices and encourage internal competition. With a concerted effort on the part of central management, the EWCs can be used as a means of communicating the need for restructuring, building corporate culture, coordinating a European strategic HRM policy and promoting cooperation in employee relations. EWCs have the potential to help increase engagement across the workforce and serve as a vehicle to expand and promote awareness of corporate culture. The aim of the paper is to investigate the relationship between EWCs and Human Resource Management. The first part of the study analyzes the characteristics and scope of EWC agreements using 6 case studies from the pharmaceutical sector. The second part of the study analyses the empirical findings of 21 interviews conducted with representatives from the management side and from the employees' side of 6 multinational pharmaceutical companies with an active EWC and a subsidiary in Greece. Findings of the study suggest that EWCs have the potential to form a bridge between the institutional internationalization of businesses and the processes that affect human resources and labor relations within companies. As the institutional framework is constantly changing HR departments must be able to ensure compliance as well as identify, assess and resolve issues that may arise before they escalate. The HR departments could act out the part in European Works Councils as they have the expertise to facilitate smooth transitions, prevent and de-escalate potential conflicts, ensure compliance with laws and regulations and provide training and guidance in employee relations.

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	GR
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EA-03

Management - leadership in Greek educational organizations: A systemic approach

Mrs Dimitra Patsi, MSc

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Private employee

Mr Ioannis Alexiou

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ABSTRACT

One of the most basic functions of administration in public Greek educational organizations is management and leadership. As is well known, these agencies set certain objectives. Each director - leader is called to encourage, activate and guide the human resources, in order to contribute effectively to the realization and implementation of these objectives of the educational organization. Perhaps leadership is the most complex process of administration, due to the fact that it is involved with the human factor. The behavior of each person is difficult to predict and define in an absolute way. The work of a leader and management consists of handling the members of an educational organization more appropriately, guiding them in how to work together and pushing them to achieve the best of their abilities. We point out that the terms management and leadership are not synonymous, but there are some substantial differences. In addition, various forms of leadership such as transformative and transactional are studied, while a systemic approach to the issue is made, where it seems to be the most ideal for increasing the performance of the organization.

SCHEDULING:

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

GR



EA-04

Systemic Thinking in S.M.E.'s

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ABSTRACT

The world today is in constant change, as ancient philosopher Heraclitus has said thousand years ago, "Everything Flows". It affects every aspect of our lives but also enterprises, whatever size they have. It makes them behave like living organisms trying to adjust their entities and survive within the volatility and complexity of the environment. In parallel, people are trying to investigate and analyze the environment so to find out rules and principles that govern this environment and define how it works. There are many rules or principles that apply to the today's situation but each one is used for one aspect of the it. One of the terms that borrowed by US army is the acronym VUCA which stands for Volatile, Uncertainty, Complexity and Ambiguity and describes the contemporary world. Our study focusses on Small and Medium Size Enterprises (SME), and how systemic thinking can turn the VUCA world into opportunities for enterprise development or eliminate the effects of negative aspects.

KEYWORDS: SME, VUCA, system thinking

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	GR
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EA-05**The contribution of systemic business strategy approach for studying a centralized procurement authority of the public sector: Systemic multimethodology formulation and the use of dynamic modeling for the optimal decision making of an IT project management office****Mr Anastasios Vasileiou, MA**

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ABSTRACT

In cases of uncertainty and ambiguity of performance in various systems, the combination of problem structuring methods may lead to a valuable systemic multimethodology that could provide solutions while minimizing their complexity. Additionally, simplification of problem-solving processes may prove valuable since they can minimize a system's problematic state more efficiently and in shorter time periods. Peter Drucker once said: What gets measured, gets managed. The same could apply on any situation, such as setting and measuring KPI's, just like in the case of the centralized procurement authority that was examined in this certification project. The purpose of this certification project was to examine the systemic archetypes that have been identified from an initial study that was conducted at this authority and through a development of a systemic multimethodology, improvements were proposed for the centralized procurement authority. Creativity was another element that was included to the formulation of the multimethodology based on the TSI (Total Systems Intervention) methodology. These systemic archetypes were identified with DCSYM (Design and Control Systemic Methodology) in the initial state of the centralized procurement authority and visualized with causal loop diagrams. DCSYM made evident that an inclusion of an IT PMO could serve as a great contributor to the performance of the authority, since the reformation of this authority would consist of more projects that have to be managed and completed to avoid a backlog of unfinished projects. This will result in minimizing outsourcing assignments and make auditing procedures work according to the risk governance framework that would be applied for the centralized procurement authority. The initial state of the centralized procurement authority was examined with DCSYM and Stafford Beer's VSM (Viable Systems Methodology) visualized the improved system of the authority and contributed to the formulation of an improved strategic planning. VENSIM contributed to the simulation of the proposed improvements, utilizing causal loop diagrams and predefined mathematical equations that this software provides. The purpose was to intervene on the failing systemic archetypes and mitigate the symptoms that the central procurement authority was initially projecting towards its immediate environment. This certification project consists of four parts. The first part is a literature review of the systemic theory and systemic thinking in general, along with the tools that are been used by the systemic analysts. The second part refers to the central procurement authority, its purpose, and the problems it faced before the systemic intervention. The third part concerns the intervention strategy that was formulated in the context of the centralized procurement authority and the systemic tools that the multimethodology would include. The fourth part is about the dynamic simulation of the improved central authority system using the VENSIM software. To summarize, taking into consideration of the approach to the centralized procurement authority's problems and the tools that were implemented for the systemic multimethodology, the element of creativity that is included in the TSI



methodology, made this approach innovative to an extent that this could also be applied to other organizations with similar problems, and by creative companies that will implement the systems thinking approach to solve complicated problems.

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	GR
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**EA-06****Systemic approach in Hellenic Ministry****Mr Panagiotis Lepelis-Leftheriotis**University of Pireaus
peterlepelis@gmail.com**ABSTRACT**

The functions of a ministry are affected by the constant changes of the environment and legislation. To counteract that we adopt a systemic approach towards the operations of the Directorate of Lifelong Learning using systemic methodologies (DCSYM, VSM). The present paper aims at approaching the Directorate's functions using systemic methodologies and tools to manage the complexity of the environment received by the departments of the Directorate of Lifelong Learning. At first the Design and Control Systemic Methodology (DCSYM) is used to analyze the systems functions and internal structure, to identify the problems and pathologies and subsequently propose a system intervention to address them. Next, we examine the sustainability of the system by applying the Viable System Model (VSM) methodology. Then follows a simulation and dynamic modeling using System Dynamics. We simulate the flow of the operations of the Directorate using the Vensim software, which allow us to extract useful data and observe the behavior of the system under controllable variables. The result is a holistic understanding of the system which leads to the improvement of the provided services of the Directorate by alleviating the internal communication issues and reducing the complexity of its internal structure.

KEYWORDS: Systemic methodologies, Simulation, VSM, Vensim

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	GR
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EA-07**The Systemic Approach to Complex Systems' Structural and Functional Reconsideration and Optimization: The Case of the N.T.U.A. and the S.A.M.P.S.****Ms Dionisia Dragona, BSc**

Student

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Mr Antonios Dragonas, MSc, CSAP, MCSE, MCT, CCNA

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ABSTRACT

The aim of this work is to lay the groundwork for Complex Systems' Structural and Functional Reconsideration and Optimization. In order to do so we have provided a comprehensive, analytical overview of the step by step process (algorithm), through which an individual business analyst/consultant or a team can approach an unknown both structurally and operationally complex organization.

1. Theoretical Infrastructure – Systemic Approach of the Issue of "Law Based Infrastructure" At the beginning of the work we discuss the parts of the theoretical infrastructure deemed necessary to construct the appropriate level of understanding to deal with the practical components of the analytical and synthetic process that will follow. More in depth selective concepts and terms derived from Systems Theory, Systemic Analysis, Dynamic Systems' Theory and Handling will be discussed. We will also provide original revisions and additions to the Systemic Approach, to support the innovative "Law Based Internal Structure and Functionality Analysis and Investigation".

2. Complex Multi-Nodal Systems' Handling/Management Algorithm – Virtual Technology Company – Process Tracking List Then, having created a satisfactory theoretical, logical and well applicable Infrastructure regarding Systems' structure and function, we will proceed to exam more systematically and thoroughly already existing Complex Multi-Nodal Organizations. We approach the main issues of dealing with Chaotic, Fuzzy Structures, highlighting the special consequences arising from the structural and operational inclusion and involvement of Soft and Mixed Systems and we present the proposed "Complex Multi-Nodal Systems' Handling/ Management Algorithm". This process is divided in the following design and application steps: "Extracting the 'Base Infrastructure/ Blueprint' of the Organization", "Extracting the Systems' General Control Structure", "Location of existing Processes", "Definition and/ or Evaluation and/ or Design of existing/ new Processes of the Organization". The previous steps are then applied to the Model of a "Virtual Technology Company" and the concept of Qualitative Process Analysis based on Process Monitoring is introduced. This approach will be presented through the use of an innovative "Process Tracking List". For this purpose we have used a modified version of DCSYM to support the understanding of the Process Sequencing in Systemic Time, fully and indivisibly supported by the related causal link diagrams produced by Vensim PLE. All this producing fully operational Qualitative Verbal Algorithms.

3. Case Study: Analysis and Application in the National Technical University of Athens (N.T.U.A.) and the School of Applied Mathematical and Physical Sciences (S.A.M.P.S.). In the last part of the work, we present an application of the overall approach, which we have created in the previous sections, concerning the N.T.U.A. and the S.A.M.P.S. We will begin by demonstrating the Structural and Operational importance and the effect of the Organization's "Legal-Regulatory Framework" and its modifications, which arise through the "Feedback Loops Process", in the case of the N.T.U.A. and S.A.M.P.S. Also, we will provide an explanation as to how the base infrastructure of the Organization is extracted from the



Legal Framework, in conjunction with the scientific and empirical infrastructure of the analyst. We will continue by mentioning the importance of the use of "Causes" and "Uses Trees" in showing the correlation of the involved structures and functional entities, which are derived from the "Laws" (Laws derived from the Central Legal System), but also from the operation of business's Regulatory/ Law based Framework over time. Finally, we will apply the "Complex Multi-Nodal Systems' Handling/Management Algorithm" at NTUA and SAMPS and we will show in detail the real world Process of "School X training request submission and approval".

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	GR
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EA-08**A systemic study: Constructing the extremely important essential feature of Co-Comprehension in a functional business environment.****Mr Antonios Dragonas, Msc, CSAP, MCSE, MCT, CCNA**University of Piraeus
antoniosdragonas@gmail.com**Ms Dionisia Dragona, BSc**Student
N.T.U.A. - School of Applied Mathematical and Physical Sciences
dionisiadragona@hotmail.com**ABSTRACT**

A major problem in almost all living businesses is the fact that, very often, in an evolving complex process, the interacting nodes (which from now on will be called Elementary Process Performers – EPPs) cannot clearly and effectively understand the packets of data and/ or procedural instructions, they receive from other directly interacting nodes (EPPs). This issue can be expressed as “Even though we talk together we cannot create the undoubtedly needed ‘common understanding/perception’ on the common operational or business issue that is being discussed”. This situation will be called from now on “Missing Co-Comprehension Infrastructure” and has all the characteristics of a “Miscommunication” between the interacting operational nodes (EPPs). The effect that arises from this “Miscommunication reality” is both notable and remarkably serious, especially when a group of acting, collaborating functional nodes need to handle complicated situations that require precise timing and correct and effective actions. This phenomenon leads to time loss and/ or need for corrective feedback loops and/ or deviation from the intended outcome of the overall evolving process. In this work we will try to construct the conceptual basis of the above mentioned problem, explain the implications that arise by the internal personal, logical and functional structure of each involved functional node (EPP) and, then, to propose a verbal handling algorithm to diminish this real business problem. So, after the necessary basic systemic definitions, we will present a Virtual Business Environment in action, examined under the scope of Applied Information Technology, and we will focus on the layer of the connected and interacting multinodal operational processes. We will, initially, explore the Operational Process Chain, as well as define and describe the formation of the involved mixed nodes (EPPs) at any level of Simplification/ Attenuation and, then, we will define and describe the functional node’s interaction to its’ related Support Infrastructure Layer (Node’s Technological Infrastructure) in conjunction with the connected Business (Technological) Infrastructure Layer. Then we will define and describe the internode processes used to interpret and comprehensively adapt interactively incoming information sets, in order for them to be compatible to the node’s internal operational state and transformation engine. The results from the previous steps will be used to investigate, during the course of the process, the insertion of at least one “information set” into the active EPP and the subsequent associated process to handle the incoming information. Then we will provide the description and explanation of the incoming “information sets” integration process in the evolving operational process in the EPPs’ “sphere of action”. In the next part of this work, based on the previous discussion we will proceed to:

- present the “Sliding Position” of the necessary adaptive interpretation to support the integration and the usefulness of the above added “information sets” to the initially existing process chain into the studied EPP.
- expand this aforementioned issue of the external packets’ integration to form the basis of the here arising issue of the Co-Comprehension formation
- deal with a specific cultivation approach



to build the necessary Co-Comprehension Infrastructure in the Business Environment • show the Co-Comprehension's structural and functional involvement to the up to this point existing Business Intelligence and to the structural and functional Inter-Business Network. In the last part of the work, we discuss the benefits that arise for the business organization from the cultivation of Co-Comprehension between the business nodes (EPPs), under continuous, adaptive iterative cultivating circles. We will do so by expanding, demonstrating and exploring the Co-Comprehension concept throughout the business and by applying methods to establish inter-business Co-Comprehension. In conclusion we will discuss needed further investigation and experiments.

SCHEDULING:

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	GR
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EA-09

Availability and Maintainability Optimization in an Aircraft Military Squadron

Ms Maria Makrygianni

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ABSTRACT

This study takes into account the structure of a fighter squadron and analyzes the way its sub-systems interact with each other. Taking the above into consideration, the study presents the modeling of the composition and operation of an aircraft (A/C) squadron over a period of one (1) month initially and six (6) months thereafter. First, the identification of the main parameters that make up the operation of a military squadron and afterward the study of the influence that they have on each other, is presented through a well-structured DCSYM and Vensim Model. Furthermore, the parameters that influence the effectiveness of the Squadron's operational status were optimized. The effectiveness of the Squadron's operational status is evaluated through the number of aircraft that can be maintained in a daily rate (maintainability rate) and the number of aircraft that can be used daily when required (availability rate). This model verified the current situation existing in a military Squadron. However, until now the influence of various parameters on the overall A/C availability and maintainability rates had not been captured with numbers. It's the first time for the military environment that a study approaches systemically the operation of a fighter squadron as a problem solving methodology.

SCHEDULING:

Friday 16th December, 2022	13:30 - 15:00	VIRTUAL ROOM FRI-1	GR
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EA-10**Diversity Management and Modeling of the Effects of Various Factors on the Activities of a Department: Applied Systemic Methodologies in a chemical company****MS Konstantina Michalopoulou, MSc**

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ABSTRACT

Descriptive Review "Systemic" comes from "system". Systems are cohesive groups of interrelated, interdependent components that can be natural or human made. Every system has causal boundaries, is influenced by its context, defined by its structure, function and role, and expressed through its relations with other systems. A system is "more than the sum of its parts" by expressing synergy or emergent behavior. Systemic describes what relates to or affects an entire system. For example, a systemic disease affects the entire body or organism, and systemic changes to an organization have an impact on the entire organization, including its most basic operations. The discipline of systems thinking is more than just a collection of tools and methods – it's also an underlying philosophy. Systems thinking is also a diagnostic tool. As in the medical field, effective treatment follows thorough diagnosis. In this sense, systems thinking is a disciplined approach for examining problems more completely and accurately before acting. It allows us to ask better questions before jumping to conclusions. The purpose of this study is the detailed presentation of the company "AKFA S.A" and the analysis of all its elements in relation to both internal and external factors. The work is based on a theoretical approach model and provides information about the human factor of the company as well as suggestions for its improvement. The sources used, are the result of a study of national and international literature, which includes, among other things, scientific articles, publications and studies of discrete scientists. Finally, the main results obtained by the reader of this study are that AKFA S.A., which is a rising Greek company, with dynamics in the sectors in which it operates, with innovative products, significant investments as well as significant steps in international markets, will improve its position in the market and will establish an anthropocentric management system. The aim of the study is the development of professional consciousness and skills that will allow employees to organize more effective jobs, work in a more creative way in a professional organization, develop leadership characteristics and skills and, in general, to improve their image as professionals. The presentation to be analyzed below, according to the systemic analysis, will serve the objectives and interests of the enterprise. According to the proposals presented in the study, a new form of organization and administration is presented, while all possibilities are utilized and combined for overall quality upgrade and improvement of the operations of the enterprise under study. Special attention is given on the soft skills of the coordinator, on leadership, adaptability, and empathy. More specifically, in this certification study, reference is made to Systemic Project Management, Systemic Methodologies, S.W.O.T ANALYSIS, the Systemic Methodology DCSYM, other methods that can frame Systemic such as NLP, Framing & Re-framing, Leadership, Agile Discipline, Lean Six Sigma as well as Soft Skills Methodology of the coordinator. Sustainable Development Model (VSMOD) and Vensim are softwares that are most suitable for use and documentation of the organization under study.

KEYWORDS: System, Methods, Project management, Soft skills



SCHEDULING:

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EA-11

Scientific Thinking – Systemic Thinking - Design Thinking and their methodologies intercorelate in a V.U.C.A WORLD. From caterpillar to butterfly

Ms Sophia Ch-Avr Georgiou, MSc

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ABSTRACT

Scientific thinking exhibits innovation by interacting with systemic & diagrammatic design thinking methods. Correlations in VUCA environments become greater.

- How do we define the evolutionary thought process?
- How does it create useful innovation?
- Under which prisma is it perceived and how is it documented?
- Does the classic scientific method cease to be functional in modern environments?
- How does systemic and planning promote higher consciousness thinking?
- How does synthesis complement analysis and how does it push the research to new beneficial results?
- How practically does the evolutionary research of "thoughts & methods" produce value? For whom ?
- Where does it practical applies ?

For better understanding of the existing VUCA situation and to predict future trends, we adopt examples from fields such as Medicine, Justice, Education, Entrepreneurship and Financial Markets. Through observations & reflections we study hypotheses of interactions. With the assistance of imaging, simulation and design methodology tools, problems are solved and innovation is born. But this research reaches a limit. This point is where the mind intersects with the empirical observation. Due to the fact that human thinking is unable to analyze VUCA situations by itself.

And when it does there is a risk of being led into errors. We will see examples. In addition, classic Top Down leadership methods are questioned in relation to a more participatory bottom Up approach more able to coexist in VUCA forces;

The article Objectives are:

- a) Observations of evolutionary thinking in VUCA systems. Combining Scientific, Systemic & Design thinking
- b) Emphasis on a more holistic mindset, investing in the wounded of the past, healing the present so that by facing obstacles people are able to handle life with benefit, responsibility and sustainability.

Do you find our research challenging & interesting? Are you concerned with topical issues such as the consequences of the pandemic, the current situation in the Greek Judiciary, financial Greek issues where citizens are looking for solutions or do you have hopes and/or prospects of an efficient business model capable to be abundant and sustainable ? Would you like to learn more about the above research or even participate more actively to our research?

GS invites people or companies to a "Systemic Dialogue" with interested in participating in



the design of a realistic Action Plan and commitment to implementation and operation directly in the Greek VUCA Reality". This is an innovative project, a combination of academics and professionals in action. The project is designed to be self-financed as CrowdFunding project. To be financed by each participant to the extent of their interest under the condition to make the project sustainable as a whole. Researchers mission is within the next 4-6 months to reach research results, so that in June 2023 be able to present the findings at the Annual International Conference on Systems Sciences, which will take place in South Africa.

SCHEDULING:

Friday 16th December, 2022	13:30 - 15:00	VIRTUAL ROOM FRI-1	GR
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**EA-12****Systemic approach of an IT company: iSTORM company as a case study****Mrs Dimitra Choleva**CSAP MASTERING PROGRAM / UNIVERSITY OF PIRAEUS
dim_hol@yahoo.gr**ABSTRACT**

Abstract The iStorm MAE- Apple Premium Reseller was founded in 2010, with the opening of the company's first retail store in Kolonaki, in the city-centre of Athens. The company has been growing at a steady pace and it keeps expanding, by the establishment of a thriving network of new retail stores in Greece and Cyprus. The main subject of this case study, is the research of the operation of iStorm company, focusing specifically on the management and administration of the retail store in Glyfada and the application of Systemic Approach. A number of systemic software and methodologies will be put to use, in order to enable the user to understand the structure and functions, through the study of systems and subsystems that constitute the retail store and the company in general. The detected problems in the operation of the retail store in Glyfada, will be addressed through the Systemic Thinking Approach. In order to secure the sustainability of the store, in an increasingly competitive market, a number of improvements will be proposed, with the aid of Systemic Methodologies and operations simulation software. Systemic Methodology Design and Control Systemic Methodology (DCSYM) is applied both for the assessment of iStorm as a company, as well as the retail store in Glyfada, which is the system that is going to be examined. DCSYM is going to detect the malfunctions in the operation of the retail store and propose improvement interventions for their successful management. Systemic Methodology of the Viable Systems Model (VSM), will be used as a systems diagnostic tool, which will ensure the viability of the system in question and contribute to the screening of occurring problems, through the use of VSMoD software. What appears to be of crucial importance, is the development of a tool, which will enable all the parties involved to express their opinions and promote the successful coordination, planning and achievement of specific goals. Viplan Method (viability planning), is used as a sustainable planning method. Decision making processes use trial and error, in order to improve company efficiency and systems in general. Modelling functions of the system in question and experimental simulation of the developed model, are used as an asset in decision making processes and ensure that the model will secure the maintenance of the competitive advantage of the retail store and the company in general. The case study concludes with the evaluation of the retail store operation and improvement proposals, as well as the implementation of the case study findings for a multitude of company functions.

KEYWORDS: Viplan, VSMoD, Systemic, simulation, DCSYM, model

SCHEDULING:

Friday 16th December, 2022	13:30 - 15:00	VIRTUAL ROOM FRI-1	GR
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EA-13**Adoption of an electronic protocol in Tzaneio Hospital applying Systems Theory and applications****Mrs Maria Koulentianou, PhD(c)**CSAP Certification Project
Tzaneio Hospital
koulen_m@yahoo.com**ABSTRACT**

The Systems Approach to management theory, commonly viewed as the foundation of organizational development. We propose, simulate and monitor the implementation of a modern model of electronic document circulation within a Health Service Provider, the General Hospital of Piraeus "TZANEIO". This model follows the transformation of the Organization, which is now oriented to adopt a Systemic approach. Aiming within the System Dynamics methodology to eliminate past malfunctions, the Organization intends to cease delays in administrative responses, lack of use of digital and electronic public services, inability to assess the qualitative and quantitative performance of employees, absence of valid, immediate and comprehensive cooperation with interested parties. The new electronic procedures serve key functions of the Organization, eliminate the obsolete paper-based document handling used up to now and serve the electronic handling and billing of correspondence and other documents between the Organization's competent services. The application of the proposed model follows a 3step procedure presented by the Certification Project. At the first level, for the study and understanding of the System "General Hospital of Pireaus Tzaneio" the Design and Control Systemic Methodology (DCSYM) was used. With this model the current situation, external environment and communications were recorded. With the planning of the installation of electronic protocol, a new improved situation is implemented, the improvements and new communications from the implementation of the electronic process of issuance and circulation of administrative acts are noted. Time savings and ease of filing are obvious improvements. At a second level, leveraging the VENSIM PLE software, we present the modeling and simulation of the implementation of the pilot adoption of an add-on to the general, modern confidential electronic protocol. The model bears the name DIAS. (Management of Confidential Information - Electronic Confidentiality Protocol). From the drawing of the basic diagram, the roles of the participating parties are drawn. But several variables that differentiate our workflow allow us to simulate and correct malfunctioning situations. In particular, the model, through simulation, allows the user to provide a quantitative approach for each category of employees and could be used as a forecasting and decision-making tool in other areas of interest of the Organization, such as for recruitment, secondments, employee transfers as well as the granting leave to employees. At the third level of the Project, we utilize Viable System Model (VSM), a conceptual model designed from the tenets, principles and laws of a sustainable organization. In our Certification Project, it serves to monitor and evaluate the adaptive connectivity of the departments of such a dynamic health service provider during the implementation of the new electronic system. Applying the VSM to the Administrative Sub-Directorate of the Tzaneio Hospital, we proceed to the first step in distinguishing the subsystems. In the second step, relationships of the subsystems, the description of information recording channels and the issues we are trying to improve are captured. The dynamic structure of the Organization, especially the section in focus, determines the need to apply anti-oscillation means and resolve conflicts during the implementation of the new modern electronic systems that is taken in force. In this context, coordination measures, management participation and clear



assignment of roles are proposed as measures which serve overall synergies and the final success of adopting the new operational electronic system. Taking into force all these useful systemic management models, we prove the structural change of the Organization. Contrary to change barriers significant countable results such as resources and space saving, optimal management of working hours, better communication between the departments and managements of the Organization, faster citizen service, protection of personal data, digitalization of data is proven. Modeling the implementation of this modern electronic applications, highlights the dynamic phenomenon of qualitative modernization of health service providers, especially a large organization such as the Tzaneio Hospital by using System Theory principles and tools. This study can be a springboard for the actual implementation of such an application, while it is yet another proof of the valuable contribution of systemic study to solving problems in mode.

SCHEDULING:

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**EA-14****Managing Diversity and Modeling the Strategy Marketing in a company's viability****Mrs Aikaterini Sideri, MSc**Student of CSAP19
sideri.ak@gmail.com**ABSTRACT**

This presentation concerns a study conducted with the purpose to investigate the (business) viability of a small company. Therefore, the researcher focuses on the Systems Thinking/Approach in order to complete the purpose of the study. The first decades of the 21st century were marked by the increasing complexity in the governance of countries, a significant consequence due to globalization. While at the same time another crucial action takes place, the confutation of many models concerning the social sciences. The combination of these issues emerges the economic problems as a global phenomenon. The science that studies and investigate such phenomena is called Economics and is included in the social sciences because it studies human behavior to solve the economic problem. Thus, this project targets to investigate the viability of a very small Greek company. Particularly, it examines the company, its simulation, and analyzes this company at the Microeconomic & Macroeconomic level and makes use of the systemic approach of this company analysing parts such as people who take part in the production process. The year 2020 is a milestone as it can be characterized as the beginning of a changing era. Each person perceived and experienced these changes individually, accepting these as stable conditions, or as something that forwards them to the next stage of life. The global community found itself in a wave of change that was difficult to adapt to or sometimes manage. The concept of VUCA World has often been mentioned on social media. However, there has been no mention of the systemic approach and its benefits in an environment of increasing complexity. Initially, this project describes the considerations and reasons for choosing this particular study as well as the impact of COVID-19 and the need for companies to 'change'. After that, the details of the company are presented as well as its challenges, and any problems that may face. The DCSYM methodology is chosen as the researcher's basic tool with the purpose to visualize the dysfunctions in the company's System structures. Next, an introduction of the DCSYM's uses folloes, the description of the design phases of the existing situation; and the proposed improvements to the company's system, making use of the DCSYM methodology. Then, the research refers to the notion of dynamic systems and the need to comprehend and model them. Additionally, she describes how the management of increasing complexity is judged as imperative, in an environment where the speed of changes and developments leaves no room for today's man to process such a large volume of data (Big Data). Moreover, this project mentions an introduction to the Vensim software and the modeling steps for the "Marketing Strategy for FOCXX 2000". Then, the variables and simulation scenarios of the model with the Vensim software are listed in detail. Finally, the implementation stages of the Marketing Strategy are presented. At the end, it is presented the distillate of wisdom gleaned from the elaboration of this project, which tries to answer significant questions like the following: "has its purpose been achieved?", "what obstacles did we encounter?", "what did we learn".

SCHEDULING:

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**EA-15****Application of Systemic Methodologies in an Internet of Things (IoT) – enabled Infantry Company with the use of DCSYM Systemic Methodology and Vensim Dynamic Simulation Software****Mr Stavros Apostolopoulos, MSc**University of Piraeus - HSSS - CSAP
apostolvolos@gmail.com**ABSTRACT**

Considering that globalization and the spread of information and communication technology have led to greater interconnection and increased interdependence on much shorter time scales between cause and causal, systems methodologies are essential for describing and understanding such complex systems. In particular, the new era in Information Technology is closely related to the rise of the Internet of Things (IoT). This neural network connects a multitude of digital devices to the Internet. Shortly, it is expected that a variety of everyday objects will be equipped with microcontrollers and processors and appropriate communication protocols that will cover, monitor, and facilitate every aspect of our daily life by integrating the end user with the Internet. One aspect of the Internet of Things is that of the Internet of Military Things (IoMT), where weapon systems, vehicles, radars, and people interact digitally with each other to increase warfighter perception. The basis for the effectiveness of an IoMT-capable army is the individual combatant, whose integrated detection and processing devices will provide all the necessary information about the situation of friendly and enemy forces, as well as an operational picture of the Battlefield. This thesis work was prepared as part of the certification for the CSAP program of the University of Piraeus. The purpose of this paper is, firstly, to present an overview of Systemic Theory with a parallel description of the most important systemic approaches and applications as well as their application in military science. Secondly, to focus on IoT applications in the Army, analyze concepts such as Battlefield Digitization and Network-Centric Warfare, and finally, present a systems approach to the operation of an Infantry Company, where the Internet of Things technologies will be widely used. Of Things (IoT), using the methodologies of DCSYM and cybernetics, through the VENSIM software, to highlight the Internet of Things technology as a multiplier factor in increasing the Combat Capability of a military force.

SCHEDULING:

Friday 16th December, 2022

13:30 - 15:00

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EA-16

Using Systemic Methodologies in a Soft Drinks Company

Ms Despoina Chatzidaki, B.Sc.

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ABSTRACT

In this paper we shall try to use the DCSYM Systemic Methodology to design a topographical picture of the business by analyzing and understanding the internal organization and influence of the external environment. We shall try to express every phenomenon as a logic of the circular relationship. We shall study the relationships of the parts but also the relationship of each systemic element within its environment. The DCSYM is a decision – making design tool used in strategic and procedural level of the organization. Afterwards, with we use of System Dynamics Methodology and the software Vensim in order to present an accurate dynamic modeling with stock and flow diagrams including causal loop diagrams to obtain at the end a set of scenarios as a decision support tool for the eventual organizational actions for improvement. Finally, we shall present the results of this professional effort.

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EA-17

The systemic approach in career development, in Engineering/ Production and Management Engineering and in the era of the 4th Industrial Revolution (Industry 4.0)

Mr. Konstantinos Karakiozis, PhD student

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Prof. Michail Papoutsidakis, PhD

Department of Industrial Design and Production Engineering - University of West Attica

Prof. Sofia Asonitou, PhD

Business Administration Department - University of West Attica

Prof. Efstathia Papageorgiou, PhD

Vice Rector for Academic and Student Affairs. University of West Attica. Department of Biomedical Sciences, School of Health and Welfare Sciences.

Prof. Evangelos Papakitsos, PhD

Department of Industrial Design and Production Engineering - University of West Attica

ABSTRACT

In this paper, we attempt to document how systems thinking exists in Engineering/Production and Management Engineering, in the technologies of the 4th Industrial Revolution and in career development theory. We adopt initially Luhmann's perspective on social systems based on which the changes that take place in each system are not boundary conditions but a natural consequence of the evolution in a differentiated society. In order to study students' career development, we follow the Systems Theory Framework (STF), not as another theory for career development but as a meta-theoretical framework that recognizes the contribution of all career theories and fosters convergence of theory, and theory and practice. The STF essentially provides a map of the different factors/variables that need to be taken into account in understanding an individual's career development as well as in career guidance counseling. It is composed of several key interrelated systems, including the intrapersonal system of the individual, the social system and the environmental-societal system all set within the context of time. We also cannot ignore that both the profession of Engineer, Production and Management Engineer and the technologies of the 4th Industrial Revolution are inextricably linked to the systemic approach, not only at the level of technology (technological systems) but also as systemic thinking or as "social systems". The importance of the systemic/systems approach (or thinking/theory) in scientific research is represented in the number of results in Scopus when in Abstracts, Keywords and Titles there are: a) 2,153 related results referred to "systems engineering" (1,140 as conference papers, 802 as articles), b) 650 results about Industry 4.0 and related technologies (322 as conference papers and 237 as articles) and c) 637 results about Production and Management Engineering (417 as conference papers and 175 as articles). The relevant results when these terms referred to "social systems" OR "socio-technical systems" are: a) 401 related results referred to "systems engineering" (224 as conference papers and 133 as articles), b) 221 results about Industry 4.0 and related technologies (92 as conference papers and 98 as articles), c) 90 results about Production and Management Engineering (45 as conference papers and 32 as articles). In today's post-industrial society of the 4th Industrial Revolution where fluidity dominates and transformations are the norm, systems thinking can be a valuable methodological and theoretical framework to understand the sub-systems and the dynamics of change they bring. In this context, the difficulty of planning, both at the individual level and more



widely, is recognized and because of this, related theoretical approaches that have been developed in career development, such as chaos theory and the boundaryless and protean career concepts, are considered to gain greater special weight in the coming years. This theoretical and methodological framework is also followed in the doctoral thesis that I am preparing on the subject of the professional prospects of the students of the Department of Industrial Design and Production Engineering of University of West Attica in the era of the 4th Industrial Revolution.

SCHEDULING:

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**EA-18****Systemic Approaches for implementation of an Energy Management System for hotel building facilities****Mr Michalis Panagiotis Bratitsis, MSc, MBA**

CSAP

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ABSTRACT

In our days the cost of energy is rising day by day due to several factors. In a world of volatility, uncertainty, complexity and ambiguity energy needs and energy cost for big building facilities like hotels, seem to be critical for the existence of the companies. It is necessary to take actions to reduce the needs of energy without reducing the comfort of the users. The reduction of the energy usage is a complicated procedure since you have to keep the facilities fully operational. There are plenty of solutions in order to improve the efficiency of the machinery or to produce your own energy but the needs of high capital investment may make the investment prohibitive. There are different operating systems installed in such facilities and each has to be analyzed and calculated separately. The complexity of such systems is obvious. The control of the systems is the first step to a sustainable operation of such facilities. The design of a reliable control system which will analyze the needs and the consumption of energy in all the systems is the basic step to the reduction of the energy needs. An energy management system will help analyze in real time the needs of energy in all the systems, improve the efficiency of the installed machinery, reduce the consumption and make cost analysis to future investments in order to make the whole installation energy efficient. Using different systemic methodologies such as Design and Control SYstemic Methodology (DCSYM) and Viable Systems Model (VSM) we will analyze the operation of the existing facilities and find out the needs for improvement. With DCSYM we will display the communication flows between all the machineries and different energy systems. Improvement of the existing situation will be proposed in order to achieve an optimal operational structure. This will lead us to the design of a much better management of the whole organization energy needs. The implementation of an efficient Energy Management System which will control all of the organizations equipment, take into account all the interaction between user needs, environmental factors, occupancy, different departments, etc., in order to make the system smart and efficient is the scope of this study. Using the VSM we will analyze all the processes and the interaction between all steps of the proposed system in order to implement a viable and energy efficient facility. The results of the above proposals are very clearly showed through the analysis, where we can see the new and more structured way of the operation and control between the equipment's and the departments of the company, which is leading to energy and cost reduction and at the same time make the organization more effective. Conclusions for the implementation of the above optimization proposals are being presented. Additionally thoughts about further improvement of the procedures and the operation of the company are proposed.

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**EA-19****Design and implementation of a Sustainable System in Central Offices****Mr Georgios Michail Karampatos, MSc, MBA**University of Pireaus, CSAP Mastering Program
geoka2174@hotmail.com**ABSTRACT**

As a consequence of Russia's aggression energy prices have been significantly increased within last year increasing dramatically the operation costs and profits of companies. Therefore, in order to manage this unstable and complex environment it is necessary to operate buildings in a smarter and sustainable way, efficiently with less waste and friendly environment for employees and local community, reducing operation costs of buildings. This means that it is necessary to design and to implement a new innovative system for the control of all loads in central offices. As we know operation and maintenance cost reduction are two important drivers and motivators for a company. Moreover, the need for more sustainable or green buildings puts pressure on the operating and capital budgets since most improvements require some amount of capital investment. In order to decide for the implementation of efficient improvements it is necessary to have a reliable Control system, which is going to give us reliable data in real time. Using the DCSYM and the VSM tools we will analyze the current situation of the operation procedure in central offices, we will show the communication flow between the equipment, HVAC system, Data Centers and lighting systems with the employees as well as the internal and external environment. The results of the DCSYM Methodology will help us to design an intelligent and efficient control system. Additionally, it is necessary, to design and install an efficient control system, which will take into account all parameters and the interaction of the environment which are the main drivers for the energy consumption in buildings, such as external temperature, occupancy, internal customer needs. They always give consideration to supplying the most efficient use of available resources, space, employees, requirements and safety for central offices. During the structure phase of a process oriented control system it is necessary to describe all steps of processes (leading processes, core processes and support processes). Using the Viable System Model of Stafford Beer we will analyze the influence between all steps of this system. We will design an organization structure and a role model for tasks, competence and responsibility. To sum up, in order to design and implement a smart and sustainable control system in a dynamic environment it is necessary to analyze the various elements of this system as well as the interaction between them. The strategic plan process has to be based on Real-Time Information. The structure of the process has to be design in such a way that it will be not influenced by a problem. This means that the process has a start and an end every time we try to run through it. It has to be guaranteed that every step of the process can be used flexible independent of a problem.

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EA-20**Modeling and Evaluation of the Resilience of Interconnected Infrastructures: A system dynamics approach****Mr Sotiris C. Messinis, MSc, PhD(c)**

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ABSTRACT

Modern society is governed by numerous systems with inherently complex relationships between them. Based on this aspect, technological, economic, social, and ecological systems are based on significant interrelationships that determine many of their core functions and scope. In keeping with their systemic nature, two of the most important societal infrastructures are those of energy and transportation. The complex nature of their interdependencies within the global economy is only partially visible, leading to unexpected disruptions that threaten their resilience status.

Energy infrastructure has traditionally been at the center of human progress, with the design and operation of critical energy infrastructure around the world traditionally driven by the core reliability principles of safety and adequacy. Technological advances and environmental degradation, as well as other developments, are introducing new risks that may be difficult or impossible to identify and quantify before a disruption occurs in practice. Given the emerging uncertainty of a potential outage, it is clear that extreme weather events may be the most significant disruptor of the necessary production and distribution operations, significantly impacting infrastructure in a variety of ways. However, assessing these impacts and quantifying potential changes in their frequency and intensity due to hazards, threats, and other externalities remains a difficult task.

Disruptive events, whether predictable or unpredictable, also have far-reaching effects on the performance and availability of transportation systems. As a result, the disruptions (extreme weather, terrorist events) lead to partial or complete disruption of network connections, interruption of trips, and impacts on various modes of transportation. Therefore, quantitative and qualitative modeling is critical to measure and improve system resilience and to understand the resilience characteristics and indicators of the transportation system. In addition, current digitalization is leading to the development of intelligent transportation systems. While the high degree of connectivity in transportation systems enables the respective smart cities to improve early detection and response, increase efficiency and reduce risks, connectivity itself also represents a new vulnerability threat.

Considering the interconnectedness of infrastructures noted above, the tendency of a power system to achieve and maintain its resilient status may come at the expense of a transportation systems performance and operation or the opposite. To capture these particular characteristics, indicator and measurement systems tend to isolate the various systems into conceptual frameworks rather than focusing on interdependencies. However, effective resilience decision making forces scientists and policy analysts to weigh among many outcomes, and alternative frameworks help conceptualize these tradeoffs. Importantly, the systems dynamics approach is a framework that can be applied directly to the transportation or energy industries, allowing us to consider and quantify the impacts of their separate resilience status and equilibrium as a strongly interconnected entity.

In this case study, we have used system dynamics modeling to assess and present the



qualitative and quantitative results of several key resilience metrics related to these system operations, with a particular focus on their interrelatedness and the adjustment between their resilience. Numerous what-if scenarios were tested to assess the implementation of various policies and strategic investment decisions.

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**EA-21****ORGANIZATION DEVELOPMENT USING CONCEPTUAL SYSTEMS AND SOCIAL NARRATIVES****Prof. Tatiana A. Medvedeva, Dr.Sc.**

Siberian State University of Transport
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The George Washington University
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ABSTRACT

A current challenge to effective communication in communities and organizations are the algorithms built into social media systems such as Facebook. When a person clicks on something he or she likes, the algorithm learns to send more messages like that one. The result is that the algorithm creates an environment of favored themes for each person. For political discussions the result has been to drive people to extreme points of view and thus to increase conflict in organizations and societies. Alternative communication systems are needed that help people develop plans for working together. One such set of methods are the Technology of Participation methods created by the Institute of Cultural Affairs. These methods lead people through an exercise where they define their vision of the future, then identify obstacles to that vision, then formulate plans to remove the obstacles. These methods have been used in many countries and in different types of organizations – local government, businesses, government agencies and university departments. People create a plan in this way, then work together to implement the plan over weeks or months, study what was accomplished and then repeat the planning exercise. This is a procedure for creating a learning organization. People come to understand the conceptual systems that people are using. They jointly create new descriptions of what they want to accomplish and work together to make their plans happen. People do not simply study existing narratives, they work together to create new narratives. In recent years the authors have used these methods in several organizations. This paper describes examples of such exercises in a wide range of organizations in several different countries.

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EA-22

Modeling and Simulation Methodology for Systemic Thinking in our VUCA World

Dr Bernard P Zeigler, PhD

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ABSTRACT

Systemic Thinking in our VOCA world requires continued development of families of coherent representations of real world phenomena (climate change, pandemics, global food supply, etc.) that support computational exploration in the form of simulations ranging from spreadsheet analysis to high performance cloud-based execution. The long-term development of such families should be founded on a firm system theatrical basis informed by structures leveraging computational resources.

Use of system specification hierarchy and associated morphisms

The levels of system specification range from lowest level behavior specification to highest level structural specification. Corresponding to each system specification level is a morphic relation appropriate to a pair of systems specified at that level. Morphisms at each level are defined such that a morphism which preserves the structural features of one system in another system at one level also preserves its features at all lower levels.

Development Method

The morphisms at the Input/output Function and State Transition levels underlie the minimal realization and homomorphic image concepts supporting the quest for minimal explanatory forms and computationally feasible implementations. Validation of the latter via proofs and Discrete Event System Specification (DEVS)-based simulations. Choice of behaviors is motivated by the desire to come up with, and define, building blocks and architectural coupling patterns for ubiquitous, composable, and reusable application.

Minimal forms

In line with the hoary dictum of philosophy, Occam's razor, we seek explanations of behavior that contain only those assumptions that are necessary to the explanation. However, the minimal realizations that we seek are based on concepts formulated in mathematical systems theory derived from both linear systems theory and finite automata theory. Proving that a realization of a behavior is minimal in this sense implies that it is a homomorphic image in relation to any implementation of the same behavior. Moreover, definitions for state-based realization of behaviors based on mathematical system theory and DEVS fundamentally include temporal and probabilistic characteristics of system inputs, state, and outputs. Moreover, they provide a solid system-theoretical foundation and simulation modeling framework for both low and high-performance computational support of VOCA phenomena modeling.

Network construction

The hierarchy of system specifications includes levels for definition of networks of components with coupling specification. This is exemplified by the DEVS coupled model definition with its well defined coupling specification. The proof of closure under coupling shows how resultant networks are equivalent to basic models, and can be treated as such in hierarchical construction.



Model formalism for Simulation and Design

DEVS enables formal and complete description of hybrid continuous/discrete model components and subsystems. DEVS-based software tool sets provide atomic model and hierarchical coupled model specifications that support graphical description of the internals and interfaces of component behavior combining energy, material, and information flows. The hybrid formalisms enable expressing differential and algebraic equations for energy-related internal variables intermixed with discrete behavior described in state-based system form. Finally, transparent implementation of the canonical DEVS abstract simulator for handling events and equations enable design of dedicated simulation functionality.

SCHEDULING:

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-1	EN
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**EA-23****Postal sector reform and the right to security and confidentiality of communications****Dr Eleni Varvaroussi, PhD**

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Dr Aikaterina Papanikolaou, PhD - Attorney at Law

Member of the Plenary Board of ADAE

Ms Eirini Gavala, MA

Division for the Assurance of Privacy of Postal Communications

ABSTRACT

The postal sector has undergone a period of radical change over the past decades. Digitization, platformisation, e-substitution, innovation in modes of delivery have had a significant impact to the postal and delivery sector. Technological advancement solutions, artificial intelligence, block chain and e-mobility technologies for postal services, automated vehicles and drones are tested by postal service providers and providers of courier services. The growth in parcels as a result of online commerce along with the use of robotics and automation for last-mile delivery continues to rise. Postal operators are increasing their efficiency by redesigning their networks and processes as well as by creating new business models and strategies to respond to the market trends. Consequently, the postal regulatory framework along with the EU cyber policy developments needs to reflect these trends and developments and provide a framework that will allow postal operators not only to ensure efficiency but also protect consumer interests and safeguard confidentiality and security of postal services. The right to security and confidentiality is inviolable and postal enterprises need to ensure the implementation of security measures when managing postal items. There are major upcoming changes that will require consideration in this dynamic sector and a systemic approach of the different work fonts involved may lead towards a more coherent and efficient postal sector. Furthermore, the role of the competent authorities and policy makers is vital as it will enable the public to exercise its right to confidentiality of communications meeting standards of access, regularity, security as well as quality.

SCHEDULING:

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-1

EN

**EA-24****How does Total Quality Management affect the Sustainability of Health and Fitness Centers?****Ms Dimitra Kapnisi, MSc**

dimitraddk@gmail.com

Prof. Athanasios Kriemadis, PhD, MBA

Department of Management Science and Technology, University of Peloponnese

ABSTRACT

Recently, people have realized the importance of maintaining and improving their health, therefore, they adopt a healthier lifestyle that includes wholesome diets and regular workout. As a result, the market of health/ fitness centers and sports organizations has grown, attracting more and more members, over the years. Health/ fitness centers offer services as: customized diets, group training, personal training, group programs, outdoor activities and dancing. People only have to choose among a wide range of health/fitness centers and provided services. On the other hand, such centers plan and implement strategies to attract and maintain as many members as possible. Total Quality Management (TQM) is a systemic management approach that considers people as the driving force of economic growth, continuous improvement and success. Organizations and businesses implement TQM to increase the number of customers and meet their needs and wishes. Adopting the philosophy of TQM, modern organizations become more competitive and sustainable. The aim of this research is to highlight the link between TQM and sustainability that brings out the best of the health/ fitness centers, identifying the benefits that emanate from TQM implementation and sustainability integration into corporate strategies. For the purpose of the research, a systematic review of literature of peer-reviewed journal articles and studies in: TQM, quality management, sustainability, and health/ fitness industry was conducted. The findings indicate that through TQM implementation, the quality of the provided services rises along with the attraction and satisfaction of health/ fitness centers' members. TQM has also a significant positive impact on the centers' effectiveness, efficiency and competitiveness, it enhances the corporate brand through the improvement of corporate reputation, and promotes the centers' sustainability and long- term survival. The theory of TQM and the concept of sustainability are two key factors of business success. Adopting such philosophies, health/fitness centers will develop mechanisms to last over time, continuously improving their operation, outcomes and relations with stakeholders.

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Saturday 17th December, 2022	11:45 - 13:15	VIRTUAL ROOM SAT-1	GR
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EA-25

Portfolio Selection in Efficient Hybrid Modular, and Self Organised Features Maps Networks

Prof. Nikos Loukeris, PhD

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ABSTRACT

A novel system for the efficient asset allocation is produced innovatively to resolve various issues of the modern portfolio theory the: i) investors behavior, ii) the decipher of the behavior in the Stochastic Differential Equations to express the prices effectively under the new trends of Chaotic Dynamics by Tsallis Statistics on Entropy into Fractal Market Hypothesis, iii) the selection of the optimal classifier between 66 Modular and 66 Self Organized Features Maps models of plain Networks and their Neuro-Genetic Hybrids to optimize investment portfolio, are examined.

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**EA-26****Anthropocene and democratic algorithmic machines****DR Theodor Sarafidis, PhD, MSc**Secondary Education
theodorsaras@gmail.com**ABSTRACT**

My main research question is how can we design and construct algorithms that are not based on the logic of surveillance for gathering information and building with quantitative statistics structures of "Big Data", molar rigid segmentarities of social-psychic assemblages. Through these assemblages micro/ macro autocratic apparatuses and regimes emerge. These regimes of "Big Data" have been defined with terms as: Societies of Control (Deleuze), Surveillance Capitalism (Zuboff, Lyon, Castells and others), Algorithmic Capitalism (Parisi). What all these terms have in common is that Societies of Control are constituted as a new form of governmentality. Following Guattari, Stigler and others, I will try primarily, to diagrammatize a building- process of new kinds of algorithms as rhizomatic, pharmacological and negantropological. (Deleuze & Guattari, Stigler, Varela, Brown, Kaufmann, Beer, Espejo) My main interest would be to contribute in the production of sociopolitical, collective, algorithmic machines, through which we could build transindividualised structures of "Warm Data" (Massumi, N. Bateson). The "Warm Data" algorithm process is found on detecting and indexing differentials with qualitative potentials, transcontextual information about the interrelationships that codify the systems of social and natural life. Secondly I will attempt to diagrammatize a democratic molecular algorithm, using Castoriadis' theory of direct democracy. These algorithms through their interlinking, could lead on the creation of World-computerization technics and World-technics (Parisi), which are based on multiple ontologies. Following the diagrammatization of the two algorithmic machines of "Warm Data" and "molecular democracy" I plan on studying the Stafford Beer's project "Cybersyn", that was originally designed to be applied in Chile in 1971. Moving on, I will attempt to demonstrate that Cybersyn's design – as an abstract algorithmic machine – is based on these diagrammatized algorithms.

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EA-27

Predicting Financial Literacy Level in VUCA World: A Case Study in Greece

Dr Vasiliki A. Tzora, PhD

Adjust Lecturer
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ABSTRACT

In VUCA world, the need for financial skills has grown rapidly over the last decade especially with all the available complex financial instruments, the de-regulation of the markets, and the easier access to credit have led to an increase in spending and a rapid rise on both personal and household debt levels. Financial literacy is an essential tool for the consumers and the current global economic crisis has sparked a heightened awareness of the need for financial education. This study, aims to measure the level of financial literacy in Greece by examining the participants' characteristics among others investors experience, keeping records of income/expenses, holding a bank account, using of e-banking, gender, monthly income, and work experience. Studies have shown that youth perform lower levels of financial literacy. Without education simple financial issues, such as understanding of credit, could lead to financial exclusion. Only through financial education, in a form of a financial inclusion initiative, along with other education and health support, can support individuals to improve their financial well-being in the VUCA world. This specific finding asks policy makers and government to educate especially the youth on the topic of personal finance.

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EA-28

Meeting the challenges of a VUCA world through effective interpersonal communication: A holistic approach

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ABSTRACT

The acronym VUCA has become a popular concept that is formed from the initial letters of the words, volatility, uncertainty, complexity, and ambiguity. Volatility refers to the nature and dynamics of change, including the nature and speed of change forces and change catalysts. Uncertainty refers to situations involving imperfect or unknown information, making it difficult to predict how they will unfold. Complexity refers to the behavior of a system whose components interact in multiple ways and follow local rules, leading to nonlinearity, randomness, collective dynamics, hierarchy, and emergence. Finally, ambiguity describes a situation in which something has more than one possible meaning and may therefore cause confusion. VUCA conflates four types of challenges, which converge to characterize a condition with many forces that interact with each other in multiple ways, culminating in a higher order of difficulty that is greater than the sum of its parts. In this context, an effective response requires synergies among people and institutions that produce a combined effect that is greater than the sum of their individual efforts. The synergies that are required to meet the challenges that are present in our VUCA world require interpersonal communication for the purpose of connecting and strengthening bonds, sharing ideas, and solving problems. In this context, interpersonal communication involves information, ideas, and feelings being exchanged between two or more people, through verbal and/or non-verbal methods. A set of essential elements that is fundamental to interpersonal communication is soft skills, also called people skills, which are a mix of social and communication skills, character traits, attitudes, and mindsets, as well as social and emotional characteristics. These can be personality traits, or they can be personal qualities obtained through life experiences. Soft skills describe a system of competencies, which includes interpersonal (people) skills, communication skills, listening skills, time management, problem-solving, leadership, and empathy, among others. This system of competencies can be approached relative to its structure, its overall behavior, and as a hierarchy. The various methodologies derived from General Systems Theory frequently emphasize the structural, the behavioral and the hierarchical aspects of systems. Structural aspects refer to the principle that system elements are interdependent. This interdependency is reflected in two facets that are present in any dynamic system: (1) the system exhibits emerging behaviors and/or properties, which are different than the behaviors and/or properties of the constituent elements (parts) of which it is comprised, and (2) the system is not the sum of its parts but the product of their interaction. The



behavioral aspect refers to the variables that characterize the elements and their functional relationships. Finally, the hierarchical aspect refers to the recursive nature of systems: systems contain and are contained in other systems. This means that each system element may itself be regarded as a self-organizing and self-regulating system. This work will focus on the application of systems thinking to interpersonal communication, focusing on soft skills as a means to strengthen it, and how to use them in order to improve one's personal and professional life. We will attempt to address the persistent challenges that are propagated through outdated paradigms, by re-framing the problems in a human-centric way, creating ideas, and adopting a hands-on approach in interpersonal communication.

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EA-29**The Role of Organizational Resilience in a VUCA World: A Systems Approach****Mrs. Victoria A. Zgouva, MBA**Hellenic Society for Systemic Studies (HSSS)
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Nowadays modern organizations operate in a dynamic environment filled with Volatility, Uncertainty, Complexity and Ambiguity. V.U.C.A. is an acronym which has been embraced to describe the chaotic "new normal" situation organizations face and to highlight the state of flux that has replaced qualities, such as certainty, stability, reliability and security. As events unfold in completely unexpected ways, due to the speed things change and the uncertainty in the complex and vague environment, the entity's ability to anticipate, prepare for, respond, and adapt to incremental change and sudden disruptions, in order to achieve the intended results that are associated with its purpose, becomes more and more difficult. This situation calls for embracing a more agile management paradigm, since the "one size fits all" and "best practice" models have been inevitably relegated to the past. Modern organizations, as open social systems that function in a continuously evolving business context, must determine the external and internal issues that are relevant to their purpose and their strategic direction, and continually align their governance and management models, in a manner that reflects the diversity of this new VUCA context. Given the complexity that is embedded in the modern organization's environment, as well as the ever-present risk that is the effect of the uncertainty that emerges from this complexity, decision-makers must cultivate structural arrangements, which balance the necessary controls that preserve consistency of purpose, with the necessary adaptability and resilience that allows their organization to respond effectively to conditions in a state of constant unrest. In this context, resilience theory addresses uncertainty from a holistic perspective, through a structured process that supports decision-makers in identifying, managing, and monitoring the organization's critical risks, while ensuring that the process itself is continually improved as the business environment changes. In short, embedding resilience in the organization's structures and processes can be an effective management tool for assessing both the threats and the opportunities that arise from risk. This presentation aims to illustrate how organizational resilience can be instrumental in improving organization's management performance and an impetus to anticipating future threats and opportunities. Moreover, it will highlight the means through which modern organizations, as open systems, can apply a systems approach when adopting this new VUCA management paradigm for improving their overall performance.

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**EA-30****Systemic Tools for Business Adaptation and Innovation in a VUCA world****Mr Rallis Antoniadis, M.Sc., Ph.D. Cand.**

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ABSTRACT

The last decade that marked the beginning of the Fourth Industrial Revolution has highlighted many emerging trends in the fields of Economics, Technology, Consumer Behaviour, Social Dynamics, etc. These emerging trends caused disruptions, which affected both private and public governance systems. Businesses could not be an exception. An enterprise can be considered as a complex adaptive system (CAS). Therefore, it is critical to understand the entire business environment in context, to fully understand its operation. A careful examination of the overall problem a business faces, will reveal the existence of a high degree of interconnections, which form multiple causal relationships. These interconnections not only reinforce the aforementioned trends, but also increase the VUCAness of the business environment (Volatile, Uncertain, Complex, Ambiguous). To create sustainable and resilient business models in a VUCA environment, it is necessary for business planning to take stock of the aforementioned interconnections and capitalize on the opportunities provided by the various disruptions. To achieve this goal, there is a need for a change of approach from the traditional, reductionist thinking that most business leaders and managers follow without considering today's complex business environment, interconnections and interdependencies, and at the same time not exploiting the full business potential. Therefore, the business entity must be approached through a holistic lens, which will provide managers the ability to see the relationships and non-linear dynamics between different parts of a system. Systems Thinking as a lens will enable them to embrace complexity and capitalize on emerging trends, encouraging greater collaboration between multiple stakeholders in the business environment to create positive value. It approaches the problems under consideration holistically in terms of their structure and the interactions between the elements and their environments. It complements top-down thinking and considers emerging VUCA behaviors as inherent to many types of problems, as it brings complementary capabilities that together enable today's challenges to be addressed by a VUCA world. Agility incorporates ideas such as flexibility, feedback, balance, shared vision, adaptability, and coordination under one umbrella. The Business Agility Canvas (BAC) is a practical tool, which provides the possibility to understand Business Agility in a structured way. It is derived from the Lean Change Canvas (LCC), which is an adapted version of the Lean Canvas (LC), which in turn is based on Alexander Osterwalder's Business Model Canvas (BMC). The use of this canvas leads to insights about Agility in a business context, about creating and delivering Customer Value and developing an agile organization. Our VUCA world requires businesses to continuously evolve their current business models to adapt and innovate. Open Innovation is a strategy for companies to innovate their business models. Business Model Innovation entails modifications to the structure of the business model and is encouraged by dynamic capabilities, which have a number of driving effects on their development. Dynamic Modeling has the ability to map the structure of a system and capture its behavior by creating a simulation over time. It is a powerful tool for understanding and leveraging the feedback interactions of complex management systems. Running various scenarios provides the ability to explore future outcomes offering an operational methodology to



support business planning or decision making. Ultimately, the model can lead to better framing factors given a particular phenomenon because of its connection between strategies and actions. In this study, an introduction is made to the complexity contained in a modern vuca environment and how it affects the companies that operate within it. The contribution of the Systemic approach to dealing with complexity is examined, followed by the presentation of Systemic tools, which can help businesses to adapt and innovate within a vuca environment. Finally, using the Anylogic software, a model is presented, which highlights the effect of Open Innovation factors in a company.

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**EA-31****Targeting Net Zero****Mrs Stavroula Chatzigeorgiou, MSc, CSAP, MBA-TQM, PhD C**CSAP, EYDAP SA
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Nowadays, the exploitation of natural resources continues unabated, while the eventual looming shortage of natural resources has already led experts to refer to terms such as sustainability. Scientists have begun to present a different production model with respect to the environment and its future preservation, expecting the best economic result. However, in a world characterized by Volatility, Uncertainty, Complexity, and Ambiguity (VUCA), it is becoming increasingly difficult to predict and plan appropriate actions for a sustainable environment. To stop environmental degradation, it is necessary to reduce the degree of exploitation of natural resources to at least the degree of their renewal. Going deeper into the term sustainability, we can analyze it into three directions: "environmental sustainability", "economic sustainability" and "political-social sustainability". As can be expected, industry plays an important role in fulfilling sustainability considering its large contribution both to the consumption of resources and energy, as well as to the production of waste and greenhouse gas emissions. Better environmental management in the industrial sector leads to improved environmental performance and thus acceptance by all stakeholders such as employees, management, local society, partners, and control mechanisms. The improvement of both the industrial systems and implemented processes is required to achieve the requested improved environmental performance. Consequently, environmental degradation arises the problem of climate change which concerns long-term changes in temperatures and weather patterns. Historically, these changes are resulted from natural factors such as changes in the solar cycle. Since the industrial revolution, human activities have been the milestone of climate's change increase, mainly due to the burning of fossil fuels such as coal, oil and natural gas, the consumption of energy for heating and cooling the buildings, as well as the operation of vehicles. Net Zero, which is set as a goal by the countries for 2030 and 2050, refers to the balance of the greenhouse gas emissions ensuring that any ongoing emissions are balanced by removals. Targeting "Net Zero" will help transform the way we live for the better, building a healthier, cleaner and safer planet not only for us, but also for the next generations. It is obvious that Systemic thinking and the Systemic methodologies could help by providing the right tools to deal with the growing environmental problem, as well as, the climate change it causes.

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**EA-32****Low-Carbon Economy****Mrs Iliana Christou, MPhil, MSc**Business Analyst
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mapkgeo@gmail.com**Mrs Stavroula Chatzigeorgiou, MSc, MBA-TQM, PhD C**CSAP, EYDAP SA
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Human intervention in the environment has severe effects. We are leading to large-scale changes in the climate, especially, with the reckless use of fossil fuels as well as the anarchic and uncontrolled development. Human influence on the climate system is clear, and thus recent anthropogenic emissions of greenhouse gases are at the highest point in human history. The main cause of pollution can be found in the energy sector and more specifically in the production of electricity, which concerns the largest part of the measures taken by countries. The atmosphere and the oceans have warmer temperature than they used to, snow and ice levels have decreased while sea levels have risen. In the face of an existing problem, there is a great debate about how the states will be able to deal with climate change, while a series of measures are implemented that are estimated to help in this direction. However, the Volatility, Uncertainty, Complexity and Ambiguity (VUCA) that characterize environmental systems make it difficult to predict as well as to choose the appropriate tools. A Low-Carbon Economy is an economy based on low-carbon energy sources and therefore has minimal production of greenhouse gas emissions into the atmosphere, specifically carbon dioxide. There are available tools to reduce the carbon footprint of every economy, leading to a true low-carbon economy, and Systemic analysis can help us choose them appropriately. The transition to a Low-Carbon Economy on a global scale could bring significant benefits not only to the developed countries, but also to the developing ones. Many countries around the world are planning and implementing low-emission development strategies, which seek to achieve social, economic, and environmental development goals while reducing long-term greenhouse gas emissions and increasing resilience to the effects of climate change. We need an economy that works for people without causing even more problems for the planet. A Low-Carbon Economy is currently the only option in the fight against climate change.

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EA-33**Proposal for the management plan of the water delivery system of the premium of Attica, after the awakening of the droughts during the period 1988 – 1993: a systematic approach to preventing hydrological drought/water scarcity****Mr. Ioannis Drakos, PHDc**Civil Engineer - EYDAP SA
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Life cannot be created or maintained without water. For this reason, water sufficiency will always be considered of great importance. The issue of sufficient reserve of water is more relevant than ever: The water crisis is considered one of the biggest challenges nowadays and the rearrangements it will cause at the global level are estimated to be much greater than those of the energy crisis of the 70s and 80s.

Overpopulation, the mass movement of the population, and the effect of climate change on the hydrological phenomenon of drought are issues that are directly linked to increased water needs in cities and the parallel degradation of this precious natural resource. Drought is an extreme natural hydrological phenomenon that presents particular complexity in terms of understanding, study, prevention, and treatment, mainly due to the parallel action of a multitude of parameters involved in its manifestation. The appearance of drought is not only influenced by the characteristics of the areas it affects; for this reason, it is not limited to specific areas, it is possible to appear in any area around the world. Thus, drought is a particularly complex phenomenon in terms of its resolution, and Greece's degree of susceptibility to the occurrence of frequent drought phenomena is due to a puzzle of various factors such as its geographical location, the continuous growth of its population, especially due to the increase in migration flows and finally the complexity of an extensive and complex water supply system.

The subject of the particular presentation is the description of the phenomenon of hydrological drought as a crisis that can plunge the wider region of the Prefecture of Attica into water scarcity, with major consequences for the citizens and for all living organisms in general.

In addition, a proposal is made about an effective management plan for the Prefecture's water supply system, where, through a dynamic model, an attempt is made to prevent potential hydrological drought phenomena in the future, with the aim of the urgent need to secure water resources both for current use but and future generations through the implementation of correct strategy management. This strategy must be systemic, wherever through the reduction of complexity, a prediction should be made so that a water resource management policy with a long-term scope and, at the same time, dynamic form can be implemented.



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EA-34

System dynamics and modeling in a new dairy product launch in today's VUCA environment

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ABSTRACT

A new dairy product development project of high importance for the organization reaches finally the last key milestone of the project time plan: time for the market launch. A war breaks out in Europe with knock-on effects that show the complexity of today: rising costs in energy, animal feed, milk, packaging materials, inflation, intense competition, while markups and advertising intensity are the means of the organization for balance and sustainability. While quality failures are likely to be added to the vulnerable and uncertain environment, the company's corrective actions are ongoing, and everyone is alert. What if, through a systemic dynamics approach, we could predict extreme scenarios and their effect on the course of launching a new product? Considering the target market as a dynamic system, modeling and simulation using Vensim software is attempted. It certainly takes a lot of knowledge and insight to create a reliable model. Nevertheless, it seems that even as non-experienced systemic analysts, we can better understand what is happening and therefore, be able to predict our actions in difficult and even improbable – only in our minds -scenarios.

KEYWORDS: systemic, dynamic, modeling, Vensim, launch, dairy

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EA-35

Applications of Data Collection, Representation and Analysis in Entrepreneurship.

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ABSTRACT

Data collection is acquiring data for commercial, decision-making, strategic planning, and research. It is an essential component of data analytics applications and research projects. Data collection occurs at different levels in enterprises. IT systems may collect data on customers, staff, sales, and other aspects of corporate operations. Data collection is using sensors, social media, discussion forums, reviews sites, blogs, and other online channels, surveys, and questionnaires. Companies conduct surveys and monitor social media to gather customer feedback. Furthermore, data scientists analyze data to explore the internal process of a company.

The aim of this study is to present ICT tools and their applications for data collection, representation, and analysis as discussed during the course "ICT & Applications for SMEs" of the Erasmus Arpel4entrep project "Bachelor in Entrepreneurship". More specifically "Waze" (<https://www.waze.com>) and "Google maps" (<https://www.google.com/maps>), both owned by Google, are discussed and compared.

The application "Waze", is a GPS and navigation tool that offers information to drivers. It has over 150 million current active users per month and is providing significant information about what they will face along the road. It is a useful tool for data collection for drivers and helps them to program their trips and save time and money.

Another ICT tool for data collection, which supports people walking, driving, cycling, or using public transport, is "Google maps" which offers surveillance and tracing in real-time location for more than 154 million users per month. According to the comparative study of these online tools for data collection, we found that "Waze" is a well-known ICT tool for data collection as "Google maps". "Google maps" support many different categories of users, and "Waze" is an online, community-based application that collects real-time information for transport. "Waze" has a high level of customization in comparison to "Google maps" which has a few customization options and a more informational interface.



In conclusion, both tools can be applied in the business sector and offer many solutions to end-users almost equally.

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**EA-36****Supporting entrepreneurial education through project-based learning****Dr Jenny Pange, PhD**

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ABSTRACT

Technological developments have always been a determining factor that has indicated major changes in various aspects of our everyday lives and significantly affect economies, production, relations, and attitudes. Education plays an important role in economic and social sustainability. Nowadays, teaching entrepreneurship at all educational levels is an important process. Additionally, intrapreneurship which is an internal process of strategic transformation aiming at the growth of an organization through the identification of the values of ideas is much considered in education. To foster entrepreneurial and intrapreneurial behavior among students, we introduced active engagement in the learning process during teaching the course on 'Applications of ICTs' in the "ARPEL4Entrep" ERASMUS project 'Bachelor in Entrepreneurship'. For the purpose of this study, the Project-Based Learning (PBL) process was applied. PBL is one of the learning methodologies that is supporting for entrepreneurship education and includes student active participation. Project-Based Learning assisted all students attending the ICT course to complete it successfully. Students attended the course for six weeks online. The learning process combined the provision of online entrepreneurial teaching materials, and network meetings with the tutor and other classmates. During PBL process, the role of the instructor was transformed into that of a facilitator offering to the students, assistance, and guidance through teaching, coaching & mentoring. According to the findings of this study, the application of PBL process has offered confidence to students' teamwork, encouraging them to explore their business ideas. It is worth mentioning that through this process, the students had the opportunity to interact continually with their tutor and their peers, adjusting accordingly to their business and economic plans. Consequently, students managed to understand better the applications of ICTs in business, reported explicitly the validity of ICTs in the business sector, and were more enthusiastic to complete in due time their tasks. Additionally, it is important to mention here that some students considered the creation of business models using ICTs in existing organizations for intrapreneurship development. In conclusion, PBL process was well-supporting teaching and learning during this course.

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**EA-37****How Digital Nomads affect Corporate Social Performance (CSP)****Mr Michael Angelos Michalopoulos, PhDc**University of West Attica
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The purpose of this study is to examine how digital nomads affect corporate social performance (CSP) in start-up companies, especially during the period of the COVID-19 pandemic when most employees were working remotely. For this purpose, the research has interviewed a sample of almost three hundred employees in start-ups active in digital services and specifically in software and application development. The research tool was the use of a questionnaire, in order to investigate the options provided by the company in which they work, but also the criteria by which employees choose to move to a place other than where the company is based. The various findings of this study and the analysis conducted, for the period June 2022 to October 2022 compared to the period 2019, showed that their experience with remote work was positive, as there is flexibility in how to manage work time them while the company also trusts them to work remotely, which helps the company itself to be extroverted and adopt flexible forms of employment. In addition, digital nomads enjoy preferential facilities in the context of governments' decisions to attract more digital nomads, which is consistent with their choice to both settle in their workplace and transport other family members as their earnings are linked to their place of work. In addition, a key criterion for country selection is fast internet access, while a major issue affecting remote collaboration is the time zone change, which often leads to more than forty hours of work per week. Finally, this study can be expanded in the future by considering the gradual lifting of the restrictive measures that were imposed with the covid-19 pandemic, regarding the continuation or not of this flexible form of work.

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**EA-38****The role of local authorities in Greece in their region's sustainable development: A systemic approach****Mr Andreas Pantazopoulos, MSc**

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ABSTRACT

In 2015 the United Nations initiated a campaign for the achievement of sustainable development which was reflected on the resolution "Transforming our world: The 2030 Agenda for sustainable development" and the 17 Sustainable Development Goals (SDGs) it has set. Cities, accounting for 55% of the world's population, 80% of the global GDP and 75% of natural resources consumption, constitute the driving force of the world economy. Hence, the drawing up of strategies and the implementation of policies leading to sustainable development must start from the cities. Moreover the local authorities as the main exponents of their communities but also the main institution closer and in direct contact with them should have a decisive role in this process. Cities are open systems operating within an increasingly dynamic and complex environment and transforming given and limited resources into services aiming to maintain and improve the well being of its main stakeholders i.e. residents, investors and visitors. This paper is part of an ongoing doctoral research which uses the systemic approach in order to look into and model this transformation process but also suggest ways of improving its effectiveness and efficiency, safeguarding, at the same time, the city's sustainable development. We start by identifying all the statutory competencies of a local authority and classifying them in various ways as, for example, per function or legal framework. At the same time, we use the relevant international standards in order to transform 17 SDGs set by the UN and create a set of respective local indices. Then we go on to assign the various competencies to the local indices and build a model of this mapping. Finally, we use the model so as to carry out a cost-effect `analysis of the various actions which could be taken in order to improve the effectiveness and efficiency of the city's transformation process and enhance its sustainability. The findings of the model's running will be used to support the local authority's decision making process and the prioritisation of its actions and initiatives.

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**EA-39****VUCA, Agile & Systemic Leadership****Mrs Martha Plexida, MSc, CSAP, PhD C**CSAP, EYDAP SA
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Today's business landscape is undoubtedly characterized by Vulnerability, Uncertainty, Complexity, Ambiguity (VUCA). In this environment, where the pace of sudden change and disruptive events is ever increasing, the role of Leadership is more essential than ever. The resulting insecurity undoubtedly affects traditional leaders, who are not used to the lack of control (or the illusion of control they had) and have remained in outdated and ineffective models of command and governance. Leaders, who are called upon to ensure business success in an uncertain future, must be the first to recognize the catalytic role of the ability to adapt to ever-increasing complexity. Knowledge and experience are not enough for success. The leaders who will succeed tomorrow are those who "roll" with uncertainty, accept that they don't know everything, and respond quickly to constant change. They are those who are characterized by curiosity to learn and make use of the new – a process that is painful for many of them, as it requires getting rid of old and familiar practices. With that in consideration, VUCA Leadership aims to help manage the rapid and unpredictable change, which is ultimately, the new norm for leaders in today's modern era. A VUCA Leadership approach can assist in shifting their mindset from relying on set outcomes to thinking of all possibilities in a challenging environment. On the other hand, Agile Leadership particularly operates in the context of adaptation, learning, and development. An Agile leader is one who accepts uncertainty, the unpredictable and the unplanned, while embracing change, pushing the company towards achieving an agile culture – essential for rapid adaptation to changing circumstances – with the goal of growth. Finally, the Systemic Leadership approach challenges the traditional paradigm and sees a leader as part of a complex system that is constantly changing. The Systemic Leadership model constituted a new paradigm for the improvement of Leadership in an organization.

KEYWORDS: VUCA, Agile, Systemics, Leadership

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EA-40

Flexible and Situational Systemic Leadership

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ABSTRACT

Leadership is defined as the ability to exercise influence on people towards a common goal. Especially in today's era where growing complexity within various organizations projects the necessity for systems and applications facilitating the implementation of the desired model and style of leadership at any level. The purpose of Flexible and Situational Systemic Leadership is to familiarize with a Model of Effective Leadership that enables both management to apply different styles of leadership as well as personnel potential development. Included in this paper presentation: what is Flexible and Situational Systemic Leadership, the 3 Skills of Flexible and Situational Systemic Leadership, Negotiation and Flexible and Situational Systemic Leadership, Readiness Levels, Leadership Styles and Application of Leadership Styles to Readiness Levels. Finally, we shall close the presentation with a brief practical example and the conclusions.

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EA-41**School effectiveness and educational change: the role of leadership and human resources****Mrs Eleni Vlachoudi, MSc**

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ABSTRACT

Every educational unit requires a leader who will contribute to the development of a stable atmosphere in order to implement the required educational and instructional actions with coordination within the school setting. The use of this type of leadership encourages teaching staff dedication and contributes to the implementation of new educational policies as well as the dissemination of needed educational results. The educators that constitute the human resources of a school unit carry the most important role in a good school structure. More specifically, their active engagement in decision-making is seen particularly beneficial since it achieves the targeted aims and, as a result, implements the essential educational reforms. The primary priority of a school structure's director is therefore to engage his teaching staff in order to secure everyone's involvement in school activities, with the goal of enhancing educational results and boosting the quality of educational work offered. Furthermore, because a school's human resources are the primary recipients of leadership impact, the presence of collaboration, mutual aid, and dedication is thought vital. The school leader must motivate his educational team to accept his vision and contribute to the attainment of the specified goals. The current study focuses on collecting teachers' perspectives regarding the role played by the human resources of a school unit within the context of its administrative function. Primary school teachers from the Thessaloniki city complex and its suburbs participated in the study. Because the study was conducted during the coronavirus epidemic, the electronic questionnaire was employed to collect research data. Participants were asked to respond to closed-ended questions on a five-point Likert scale. It is worth noting that the quality indicators presented in Ministerial Decision No. 6603/GD4/2021 (Government Gazette B' 140/20.01.2021), which states that high performance in administrative functions of educational units will contribute to the improvement of the quality of educational work provided and, as a result, to the achievement of the required educational change. The SPSS program was used to analyze the survey results, and the validity and reliability of the questionnaire were ensured by its pilot application and the calculation of the Cronbach alpha coefficient, respectively. The current study's findings indicated the educational staff's willingness to implement school unit internal regulations and their active engagement in school operation decision-making. Furthermore, the vast majority of responders want to participate in educational meetings and/or scientific conferences, as well as collaborate on pedagogical or instructional issues. Finally, the school structure's administrator functions as a facilitator in order to foster collaboration among the educational staff.



SCHEDULING:

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**EA-42****The systemic approach in identifying and emending organizational dysfunctions****Mr Ioannis Vasileios Mitsovasilis, MSc, MBA**University of Piraeus
mitsobill@hotmail.com**ABSTRACT**

This study aims at investigating the causes of the decrease in sales despite the increase of the clientele of a company that merchandises MEP equipment used in air conditioning and ventilation control systems (HVAC), as well as repair services and technical / or after sales support. In order to be able to identify the cause of the aforementioned issue, a systemic approach was performed via application of the Systemic Theory. Within a VUCA environment (Covid, energy market crisis, recent political developments etc) the Systems Theory has been proved an asset since it is mostly effective in minimizing complexity. To begin with, we conducted a thorough study of the company structure, as well as its operation and activities. For this purpose, we made use of DCSYM systemic methodology. Presenting the company structure with the use of DCSYM, proved to be critical in revealing existing deficiencies, which result from the actual company structure. These findings served in identifying/defining the problem in a more precise way, hence allowed to undertake a more targeted course of action. In order to be able to define all factors that affect the company operation, as well as in which way that occurs, we used System Dynamics. Talking advantage of VENSIM methodology, we managed to create a mock up of the most active company department (merchandise storage facilities) and then we proceeded with examining various scenarios. All conclusions conducted via the aforementioned methodologies, not only indicated the importance of restructuring both the company structure itself and its internal procedures, but also allowed to specify the areas that such restructuring should be applied. It was also found that it would be of paramount importance to apply Key Performance Indicators to reassure control of the new procedures. This case study, comprises of a valuable asset for the company, since it reduces complexity of business as usual and provides opportunities for further development and progress.

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**EA-43****Management accounting systems in the public sector in the context of the New Public Management: Existing Framework and Changes.****Ms Hara Pappa**University of West Attica
chpappa@uniwa.gr**Dr. Odysseas Pavlatos**University of Macedonia
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niksyk@uniwa.gr**ABSTRACT**

Accounting is so-called the universal language of business and management accounting systems provide useful information for management to make decision and operate plan and control. Management accounting systems help managers to collect internal information for optimally inspecting and evaluating the current financial situation of the entity they manage and helps them in the decision-making process by providing appropriate information, applying proper analysis techniques to different situations. The present study is a systematic literature review of management accounting systems in the public sector. Through an investigation of what has been studied to date, it is identified the existing framework and the changes that have been made to them. The debate on accounting change has gained new momentum over the last few years, because several questions are still unsettled despite the large amount of studies. The literature so far has focused on general models of change and the drivers and correlates of change. Other works discuss the conditions enabling change and the influence of institutionalised elements on changing processes while others explore the politics of change, the role of influential agents, and the effects of power relationships. Despite the importance of management accounting to organizations, a number of experts have argued that management accounting has changed much more slowly than necessary to fulfil the demand for information in the present organizational environment. Taking this view into account many researchers have focused their attention on the process of management accounting change. This relatively new area of investigation is based upon a wide range of approaches and theories. Taking into consideration the importance of management accounting change research and the possible approaches to investigate management accounting change in public sector, the paper will present which are the main approaches to investigate management accounting change and which is the present stage of research in the area of management accounting change.

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**EA-44****Golden Visa and short term rental housing are shaping the real estate market in Athens post 2008 crisis. Potential impacts on the economic, spatial and social sector and policies that can be designed and implemented to address them.****Mr. Vasileios P. Thanasouloupoulos, Msc**HR, Ministry of Finance, Greece
vasilis.thanasouloupoulos@gmail.com**Asst. Prof. Andreas Alexopoulos, PhD**Department of Accounting & Finance, University of West Attica
a.alexopoulos@uniwa.gr**ABSTRACT**

The real estate market is a special market with a significant impact on macroeconomic aspects and financial stability. The systematic monitoring and analysis of the development and prospects of this market is therefore very important for a more complete assessment of the macroeconomic conditions and perspectives of the Greek economy. Following the 2008 economic crisis the real estate market in Greece suffered a heavy blow, caused by the many types of tax measures that were imposed because of the crisis. However, in recent years the Greek housing market seems to be leaving behind the crisis and blooming again. Two important factors for the rise of the Greek real estate market are the real estate investor program (common known as Greek Golden Visa) as well as the short-term rental housing sector (via internet platforms like Airbnb) especially in Athens and in areas of tourist interest across the country. Greece became in the post crisis era the first destination for many investors, as its real estate market is full of opportunities. As a result prices both for buying and renting residence have gone up dramatically creating reasonable questions regarding the impact in the socio-economic and urban environment. Gentrification and touristification two concepts almost unknown before to Greek society are now taking place and change the socio-economical structure of neighbourhoods especially in the Greek capital. The aim of this presentation is to highlight these consequences and attempt to indicate possible policies that can be designed to address potential impacts on the economic, urban and social sector.

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**EA-45****Transparency in public procurement using network analysis:
Identifying the opportunities for economic operators.****Mr Ioannis Fountoukidis**

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Dr Eleni DafliLab of Medical Physics and Digital Innovation of Aristotle University of Thessaloniki
elendaf@auth.gr**ABSTRACT**

Background: Public procurement is a steadily growing market that has a strong interest from the side of contracting authorities as well as from the side of economic operators. Public contracts are important opportunities, especially for SMEs and often their amount is calculated as a significant part of their turnover. In addition, the health and economic crisis we are experiencing make it more necessary than ever to properly manage limited public resources. For the reasons mention above, transparency and the development of real competitive processes in this market are necessary. **Summary of Work:** Neo4j, a freely available, open source, NoSQL, native graph database, was used to create a network of competitive processes per CPV category of a contracting authority. Open data from the Greek portal "KHMDHS", were used and represented in nodes and links, which were associated with the open data from the Opentender platform. The Neo4j graph database was connected to Gephi, an open-source network analysis and visualization software to implement connectivity and centrality analyses. This dynamic network enables market mapping and data visualization to better understand how the market works, reveal process segments, and highlight opportunities for companies. **Summary of Results:** A network was created using open data. Each node had several properties and was of the following categorization: (1) item with the CPV code, (2) company with the VAT number. Nodes are connected to each other by links that have as properties the type of assignment process and the assignment value. Network analysis helps to investigate the possible existence of segmentation of contracts and preference for specific companies according to the contracting process. The analysis showed fragmentations in the procurement processes and captured the role of companies in the operation of the contracting authority. **Discussion:** The results of using procurement analytics have been very positive and encouraging. Information on procurement procedures without a prior open call to tender could be useful for economic operators in order to claim market share. The correlation of the two data packages highlighted errors in the procedures. Process partitions that may be red flags were identified. Finally, the visualization of the procurement network by category highlighted the role of each company in the operation of the market with the specific contracting authority. **Conclusion:** The study of public contracts and the detection of mismanagement and corruption phenomena can be improved by applying network analysis. Analyzing public procurement data by using graph theory appears to be an effective tool for transparency and entrepreneurship. **Take-home Message:** The use of graph theory appears to enhance the analysis of supply networks, highlighting business opportunities and transparency in processes.

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EA-46

The participation of citizens as a factor in the formation and operation of smart cities: The case of Greek cities

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ABSTRACT

In recent years, the term "smart city" has attracted the intense interest of policy makers both at the level of local government and at the level of stakeholders, such as businesses and society in general. In this context, the discussion shifts to contemporary 'smart city' strategies around the world, with an emphasis on 'smart citizens' and the role they play in both operating and shaping smart cities. In the present work, the investigation of the role of the citizen in the transformation of cities into smart cities is attempted. In particular, a) the way in which the development of smart cities is carried out in the Greek reality is outlined, b) the initiatives taken to encourage citizen participation in smart cities are recorded, c) the type of participation that develops in the formation is studied and in the operation in the context of the aforementioned process is studied d) the factors that influence citizens participation are studied e) modern strategies to enhance citizens participation are captured and f) the effects of the pandemic on citizen participation in the smart cities undergoing transformation are recorded. In order to study all the above-mentioned aspects of the subject, a qualitative research was carried out, which was conducted through individual interviews with local government officials, in the municipalities of: Peristeri, Trikala, Tyrnovo, Deskati, Syros, Astypalaia. The results of the research capture a general picture of the situation regarding how the executives of the local authorities perceive the role of the citizen in modern smart Greek cities. The resulting figures are quite informative regarding the limited degree of dissemination of smart city practices in the Greek area and cause concern, although gradually this picture seems to be changing. The role of local government in this transformation process is seen as multidimensional and at the same time decisive. The participation of citizens in the cities under study is expressed in a variety of ways, while a series of factors are recorded that work, sometimes positively and reinforcing, and sometimes inhibiting. In addition, the strategies to enhance citizen participation in smart cities are recorded. Finally, evidence is presented for the decisive role played by the pandemic.

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**EA-47****A breakthrough in Facebook Ads optimization through Systemic Dynamics & Artificial Intelligence Algorithms****Mr. Konstantinos Koutsantonis**

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ABSTRACT

According to Google, more than 9 out of 10 consumers will search for products or services online, even if they might ultimately purchase from a physical store. This fact has made digital advertising platforms the most powerful communication and promotion tool a firm can utilize today. While the cost of the specific advertisements exponents due to increased demand day-by-day, intense competition, complexity in advertising tools as well as the lack of being able to estimate the results of their utilization generate an ambiguous framework through which companies aim to pursue their promotional goals. The purpose of this study is to investigate optimization methods of digital advertising tools and, more specifically, the Facebook Ads platform, to effectively deal with the complexity in implementation and ambiguity in predicting the advertising results through: 1. Systemic Dynamic methodology and VenSim software for system design, modeling, and simulation 2. Artificial intelligence (AI) algorithms for data analysis and the formulation of mathematical models, which will define the quantitative determination of the interactions among the main system variables. Finally, the findings of the simulation of the model are studied and compared with the results of their application in actual market conditions, showcasing a significant improvement in the overall performance of advertisements through Facebook Ads.

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**EA-48****Application of Systemic Methodologies in a Telecommunications Company with the aim of Establishing and Operating a Quality Control Department to Minimize the number of its Subscribers facing a telecommunications problem****Mr Konstantinos Fatolas, Msc**

CSAP

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ABSTRACT

In the contemporary field of enterprises, each business might face a number of circumstances which may put its survival at risk. The administrative team of each business, while dealing with complex conditions, could develop hypothetical scenarios demanding inspection and confirmation. The systemic consideration of the tools each business owns could enable it to check its survival scenarios and put forward the administrators' strategic thinking. Systemic methodologies, like DCSYM, VSM, Simulation developed with a view to solving intricate situations. The simulation offers resources saving, as well as observation of the condition's advancement in the long run, which could significantly reduce the risk a possible change might induce to each business. The model of Viable System Model (VSM) aims at identifying the system's viability, locating the problems of its existing infrastructure and, at the same time suggesting the most suitable solutions. The Design and Control Systemic Methodology (DCSYM) infrastructure points out not only its structure but also the communication and the inspection methods built among the subsystems therefore, facilitating the operation of any possible problems which might show up during the process. The tools, offered by the systemic methodologies, could be employed by a business as a decision-making means and a vehicle of reorganization, reshaping and eventually, process inspection. The goal of the present study is the application of systemic methodologies in a Telecommunication Company with the aim of founding and functioning an Administration of Quality Control, which could diminish the number of the subscribers dealing with a telecommunication problem.

KEYWORDS: DCSYM, VSM, Simulation

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EA-49

Systemic Approach on the development of a Business ICT Team on a Retail Organization

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ABSTRACT

Changes in information and communication technology (ICT) require continuous modifications in con-temporary organizations and in corresponding work processes. Although technologies are a means and not an end, should be chosen considering legal frameworks, organizational issues, social and territorial peculiarities, and economic sustainability. The goal of every organization is to bring innovation and results in economic and production terms. The mean to achieve these goals is mainly delivered using information technology tools and equipment. To be more efficient, the need to involve business teams on IT implementations has arisen. A team with business participants, having experience on ICT systems only as end users, has demonstrated effective and valuable results on technology related projects. Not only had the ability to evaluate the business need but also were competent enough to analyze, develop and deploy technology solutions, having a unique approach to what was already established. The outcome of this approach, identified the ability of business side individuals to be able to participate on the built of technology solutions, though the governance of projects, the trainings and the development of them is addresses on the related technology team.

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**EA-50****Evaluating Information Technologies / Information Systems
(IT/IS) within a strategic business context****Dr. Ioannis Katsanakis, PhD**Assistant Professor, University of Piraeus
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One of the key issues in the field of Information Systems is the value of Information Technology / Information Systems (IT/IS) and its measurement. The purpose of this research is the study of the value of Information Systems and Information Technology, as well as the methods which have been developed for its evaluation. Therefore, a comprehensive understanding of the factors and corresponding processes underlying the evaluation of an Information System within the context of a firm is provided and a recording and categorizing of the key Information Systems evaluation models are presented. Moreover, a theoretical framework for the evaluation of Information Systems, contributing to the overall development of the strategy of an organization, focusing on the areas of Information Systems, Strategic Information Systems and Business Process Management, based on the use of processes is presented and analyzed. This model is based on the Resources Based View Theory, the Theory of the Alignment between IT/IS Strategy and Business Strategy, and the Stakeholder Theory, and includes nine factors which are the main elements that form the value provided by Information Systems. This research intends to evaluate the Information System through its direct interaction with operational and strategic factors and it is treated as a structural element of the organization. The results of this theoretical approach highlight the factors that must be taken under consideration by firms when evaluating their Information Technology / Information Systems (IT/IS) and conclude with a theoretical IT/IS evaluation framework that can be used as a useful tool for companies in order to identify their weaknesses regarding the effectiveness of their Information Systems.

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EA-45	Transparency in public procurement using network analysis: Identifying the opportunities for economic operators.				100
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EA-46	The participation of citizens as a factor in the formation and operation of smart cities: The case of Greek cities				101
	Saturday 17th Dec.	17:15 - 19:00	VIRTUAL ROOM SAT-1	GR	
EA-47	A breakthrough in Facebook Ads optimization through Systemic Dynamics & Artificial Intelligence Algorithms				102
	Saturday 17th Dec.	17:15 - 19:00	VIRTUAL ROOM SAT-2	GR	
EA-48	Application of Systemic Methodologies in a Telecommunications Company with the aim of Establishing and Operating a Quality Control Department to Minimize the number of its Subscribers facing a telecommunications problem				103
	Saturday 17th Dec.	17:15 - 19:00	VIRTUAL ROOM SAT-2	GR	
EA-49	Systemic Approach on the development of a Business ICT Team on a Retail Organization				104
	Saturday 17th Dec.	17:15 - 19:00	VIRTUAL ROOM SAT-2	GR	
EA-50	Evaluating Information Technologies / Information Systems (IT/IS) within a strategic business context				105
	Saturday 17th Dec.	17:15 - 19:00	VIRTUAL ROOM SAT-2	GR	



Schedule by Author

Aikaterina Papanikolaou

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-1	EA	EN
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Aikaterini Sideri

Friday 16th December, 2022	13:30 - 15:00	VIRTUAL ROOM FRI-2	EA	GR
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Alexander "Alec" Christakis

Thursday 15th December, 2022	12:00 - 13:30	VIRTUAL ROOM THU-1	KN	EN
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Alexander Laszlo

Thursday 15th December, 2022	14:00 - 15:30	VIRTUAL ROOM THU-1	KN	EN
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Alexandros Miaris

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-2	EA	GR
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Alina Degteva

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Anastasios Riggas

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-2	EA	GR
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Anastasios Vasileiou

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	EA	GR
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Andreas Alexopoulos

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-1	EA	GR
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Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-1	EA	GR
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Andreas Drivas

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-2

WS

GR

Andreas Maniatis

Thursday 15th December, 2022

15:45 - 17:15

VIRTUAL ROOM THU-1

KN

EN

Andreas Pantazopoulos

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Antonios Dragonas

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-2

EA

GR

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-2

EA

GR

Artemi Georgiou Chatzigeorgiou

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Athanasios (Thanos) Kriemadis

Friday 16th December, 2022

11:45 - 13:15

VIRTUAL ROOM FRI-1

KN

EN

Athanasios Kriemadis

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-1

EA

GR

Bernard P Zeigler

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-1

EA

EN

Christos Manglaras

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Christos Rados

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-1

PP

GR

Despoina Chatzidaki

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-2

EA

GR

Dimitra Choleva

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-1

EA

GR

Dimitra Kapnisi

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-1

EA

GR

Dimitra Patsi

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	EA	GR
Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	EA	GR

Dimitrios S. Varsos

Saturday 17th December, 2022	11:45 - 13:15	VIRTUAL ROOM SAT-2	EA	GR
Saturday 17th December, 2022	11:45 - 13:15	VIRTUAL ROOM SAT-2	EA	GR
Saturday 17th December, 2022	19:00 - 19:30	VIRTUAL ROOM SAT-2	PRT	EN

Dionisia Dragona

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	EA	GR
Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-2	EA	GR

Efstathia Papageorgiou

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-2	EA	GR
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Eirini Gavala

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-1	EA	EN
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Eleni Dafli

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-1	EA	GR
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Eleni N Triantafillidou

Thursday 15th December, 2022	17:30 - 19:00	VIRTUAL ROOM THU-1	EA	GR
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Eleni Varvaroussi

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-1	EA	EN
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Eleni Vlachoudi

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-2	EA	GR
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Evangelos Papakitsos

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-2	EA	GR
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Fotis Sallas

Saturday 17th December, 2022	13:30 - 15:00	VIRTUAL ROOM SAT-1	PP	GR
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George Chandrinos

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-2	WS	GR
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Georgios Michail Karampatos

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-2

EA

GR

Georgios Tsekouropoulos

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Gerald Midgley

Thursday 15th December, 2022

10:15 - 11:45

VIRTUAL ROOM THU-1

KN

EN

Hara Pappa

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Iliana Christou

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Ioannis A. Tsiotsiopoulos

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Ioannis Alexiou

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

EA

GR

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

EA

GR

Ioannis Drakos

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Ioannis Fountoukidis

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Ioannis Katsanakis

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

EA

GR

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-2

EA

GR

Ioannis Vasileios Mitsovasilis

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Jeff Diedrich

Thursday 15th December, 2022

12:00 - 13:30

VIRTUAL ROOM THU-1

KN

EN

Jenny Pagge

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Jenny Pange

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

John Thanopoulos

Friday 16th December, 2022

11:45 - 13:15

VIRTUAL ROOM FRI-1

KN

EN

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-2

WS

GR

Konstantina Michalopoulou

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-1

EA

GR

Konstantinos Fatolas

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-2

EA

GR

Konstantinos Karakiozis

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-2

EA

GR

Konstantinos Koutsantonis

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-2

EA

GR

Kristallo Kedra

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Kristina Hoxha

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Maria E. Giannakaki

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-2

EA

GR

Maria Koulentianou

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-2

EA

GR

Maria Makrygianni

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-1

EA

GR

Martha Plexida

Saturday 17th December, 2022	13:30 - 15:00	VIRTUAL ROOM SAT-2	EA	GR
Saturday 17th December, 2022	13:30 - 15:00	VIRTUAL ROOM SAT-2	EA	GR
Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-2	EA	GR

Michael Angelos Michalopoulos

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Michail Papoutsidakis

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-2	EA	GR
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Michalis Panagiotis Bratitsis

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-2	EA	GR
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Nicos Sarakasidis

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Nicos Sikianakis

Saturday 17th December, 2022	15:30 - 17:00	VIRTUAL ROOM SAT-1	EA	GR
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Nikitas A. Assimakopoulos

Saturday 17th December, 2022	11:45 - 13:15	VIRTUAL ROOM SAT-2	EA	GR
Saturday 17th December, 2022	11:45 - 13:15	VIRTUAL ROOM SAT-2	EA	GR

Nikitas Asimakopoulos

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-2	EA	GR
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Nikolaos Bakas

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-2	EA	GR
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Nikolaos Papazoglou

Friday 16th December, 2022	17:15 - 19:00	VIRTUAL ROOM FRI-2	WS	GR
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Nikolaos Sykianakis

Saturday 17th December, 2022	17:15 - 19:00	VIRTUAL ROOM SAT-1	EA	GR
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Nikolaos Zoannos

Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-1	WS	GR
Friday 16th December, 2022	15:30 - 17:00	VIRTUAL ROOM FRI-1	WS	GR

Nikos Loukeris

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-1

EA

GR

Odysseas Pavlatos

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Pagona-Xanthi Psathopoulou

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Panagiotis Georgitseas

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Panagiotis Lepelis-Leftheriotis

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-2

EA

GR

Panos Chatzipanos

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-1

PP

GR

Pelagia Chourdaki

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Peter D. Tuddenham

Thursday 15th December, 2022

12:00 - 13:30

VIRTUAL ROOM THU-1

KN

EN

Peter Groumpos

Saturday 17th December, 2022

10:00 - 11:30

VIRTUAL ROOM SAT-1

KN

EN

Prodromos Iatridis

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-1

WS

GR

Rallis Antoniadis

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-2

EA

GR

Ray L Ison

Friday 16th December, 2022

10:00 - 11:30

VIRTUAL ROOM FRI-1

KN

EN

Ricardo Rodriguez-Ulloa

Thursday 15th December, 2022

14:00 - 15:30

VIRTUAL ROOM THU-1

KN

EN

Sofia Asonitou

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-2

EA

GR

Sophia Ch-Avr Georgiou

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-1

EA

GR

Sotiris C. Messinis

Friday 16th December, 2022

15:30 - 17:00

VIRTUAL ROOM FRI-2

EA

GR

Stavros Apostolopoulos

Friday 16th December, 2022

13:30 - 15:00

VIRTUAL ROOM FRI-2

EA

GR

Stavros Fasoulas

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

EA

GR

Thursday 15th December, 2022

17:30 - 19:00

VIRTUAL ROOM THU-1

EA

GR

Stavroula Chatzigeorgiou

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-2

EA

GR

Stephen D' Allessandro

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Stergiani A. Giannakou

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-2

EA

GR

Stuart A. Umpleby

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-1

EA

EN

Tatiana A. Medvedeva

Friday 16th December, 2022

17:15 - 19:00

VIRTUAL ROOM FRI-1

EA

EN

Theodor Sarafidis

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-1

EA

GR

Theofanis Giotis

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-1

PP

GR

Vasileios P. Thanasouloupoulos

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Vasileios Panagou

Saturday 17th December, 2022

17:15 - 19:00

VIRTUAL ROOM SAT-1

EA

GR

Vasiliki A. Tzora

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-1

EA

GR

Vasiliki Drakou

Saturday 17th December, 2022

13:30 - 15:00

VIRTUAL ROOM SAT-2

EA

GR

Vasiliki Manglara

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Vasilis Angelis

Saturday 17th December, 2022

15:30 - 17:00

VIRTUAL ROOM SAT-1

EA

GR

Victoria A. Zgouva

Saturday 17th December, 2022

11:45 - 13:15

VIRTUAL ROOM SAT-2

EA

GR

Yiannis Laouris

Friday 16th December, 2022

10:00 - 11:30

VIRTUAL ROOM FRI-1

KN

EN

Yiannis M. Kalogerakis

Saturday 17th December, 2022

10:00 - 11:30

VIRTUAL ROOM SAT-1

KN

EN



ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

Κέντρο Επιμόρφωσης
και Δια Βίου Μάθησης



CSAP

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Analyst Professional
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