

**IEEE****SEEDA-CECNSM
CONFERENCE 2025**
19-21 September | Patra, Greece**IEEE
Computational
Intelligence
Society****SEEDA-CECNSM 2025 - DETAILED PROGRAM**

SEEDA-CECNSM 2025 - DETAILED PROGRAM				
EEST	Day 1: Friday, September 19th, 2025			
14:00 – 14:30	Registration			
14:30 -- 14:45	SEEDA-CECNSM 2025 Opening	Chrysostomos Stylios, General Chair of SEEDA-CECNSM 2025 - Welcome Greeting		
		Michael Dossis, General Chair of SEEDA-CECNSM 2025 - Welcome Greeting		
14:45 -- 16:05	Session 1: Digital Twins & VR Chair: Athanasios Christopoulos	Aggelos Alexopoulos, Agorakis Bompotas, Nikitas-Rigas Kalogeropoulos, Panagiotis Kechagias, Athanasios Kalogeras and Christos Alexakos, A Model-Based Approach to Automated Digital Twin Generation in Manufacturing		
		Konstantinos Sakkas, Niki Eleni Ntagka, Emmanouil, Oikonomou, Nikolaos Giannakeas, Alexandros T. Tzallas and Andreas Miltiadous, AI-Driven Digital Twins in Medical Education: Virtual Avatars for Neurodegenerative Disease Training		
		Panagiotis Georgiou, Athanasios Christopoulos and Chrysostomos Stylios, Design and Development of a Virtual Reality System: Application to the Training of Small Vessel Skipper		
		Ioannis Koulouras, Spiridoula V. Margariti, Chrysostomos Stylios and Eleftherios Stergiou, Towards Efficient QoS in SDN: A Comprehensive Mapping Study		
16:05 – 16:30	Coffee Break			
16:30 -- 17:30	Plenary Keynote Chair: Chrysostomos Stylios	Dr. Gonzalo Nápoles, Tilburg University, Netherlands, Sparseness-Optimized Feature Importance For Machine Learning Applications		
17:30 -- 20:10	Session 2: Computer Vision & Image Classification Chair: Thanasis Kalogeras	Gerasimos Vonitsanos, Emmanouela-Electra Economopoulou, Spyros Sioutas, Andreas Kanavos and Phivos Mylonas, Integrating Attention Mechanisms into Convolutional Neural Networks for Image Classification	Session V1: Digital Twin & Hardware Architectures Chair: Phivos Mylonas	Argyrios Sideris, Theodora Sanida, Maria Vasiliki Sanida, Michael Dossis and Minas Dasygenis, Secure Chaotic Encryption of Medical Images via Logistic Maps and SHA3-Based Key Generation on Embedded Devices
		Dimitrios Mitrogiorgos, Petros Karvelis, Alice Stocco, Nikos Koutsias and Chrysostomos Stylios Machine learning based solutions for salt marsh monitoring		Antonios Chatzisavvas, Theodora Sanida, Georgios Ktistakis, Michael Dossis and Minas Dasygenis, Digital Twin-Based A* Path Planning for UGVs in Smart Agriculture
		Aris Magklaras, Panayiotis Alefragis, Christos Gogos and Alexios Birbas, Photolithography Overlay Errors Simulation Using Zernike Based Aberration Modeling and Intra-Field Variation		Antonios Chatzisavvas, Dimitris Ziouzos, Nikolaos Baras, Georgios Papamichail and Minas Dasygenis, Smart Path Planning for UAV Navigation in Apple Orchards Using Digital Twin Validation
		Dimitrios Mpouziotas, Panagiotis Georgiou, Georgios Pachoulas, Petros Karvelis and Chrysostomos Stylios, End-to-End Web-GIS and Computer Vision System using UAV imagery for Avian Monitoring and Risk Assessment		Nikolaos Baras, Antonios Chatzisavvas, Minas Dasygenis and Dimitris Ziouzos, Multi-Robot Warehouse Navigation Using Digital Twin Enhanced Intelligence
		Vasileios Rekkas, Stavros Samaras, Sotirios Sotiroidis, Panagiotis Sarigiannidis, Zaharias Zaharis and Sotirios Goudos, Fish Species Classification Using Deep Learning: A Comparative Study		Kosmas Kariotis, George Kranas, George Dimitriou, Michael Dossis and Antonios Dadaliaris, The State of Python-Based FPGA Development: A PyPI Repository Study
				George K. Kranas, Kosmas Kariotis, Michael F. Dossis and Antonios N. Dadaliaris, A Multi-Method Framework for Early-Stage Routing Congestion Prediction in VLSI Designs
		Frederic Mirindi and Derrick Mirindi Agent-Based Economic Co-Design for Sustainable SDN-Enabled IoT Architectures in Smart Cities		
19:50	End of 1st Conference Day			

Legend

On-site presentation

On-line presentation



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EEST	Day 2: Saturday, September 20th, 2025			
08:30 -- 09:00	Registration			
09:00 -- 09:40	Session 3 AI & Healthcare / Medical Informatics	Evangelos Spyrou, Vassilios Kappatos and Chrysostomos Stylios, Depressive Thought Retrieval as a Probabilistic Database Query System	Session V2: Optimization & HCI & AI (I) Chair: Christos Trousas	Phivos Mylonas, Christos Troussas, Akrivi Krouska and Cleo Sgouroupoulou, Personalized Multimodal Signal Processing for Enhanced HCI in AR Environments
	Chair:Chrysostomos Stylios	Alexandros Tamilias, Theodoros Karvounidis and Christos, Douligeris,Air Quality Monitoring Systems: A survey		Akrivi Krouska, Christos Troussas, Phivos Mylonas, Ioannis Voyiatzis and Cleo Sgouroupoulou, Evaluation Metrics and Ethical Concerns in the Design of Adaptive AI Chatbots
09:40 -- 11:20	Session 4: NLP, Text Summarization & Metaverse Chair: Athanasios Christopoulos	Iasonas Topalidis and Minas Dasygenis, Leveraging Large Language Models for Dynamic NPC Interactions in 2D RPGs	Session V3:ML Methods, Optimization & Infrastructure AND Digital Experience , Analytics & Socio-Technical Systems (II) Chair: Christos Alexakos	Theodora Sanida, Argyrios Sideris, Antonios Chatzisavvas, Michael Dossis and Minas Dasygenis, Crop Recommendation via Lightweight Deep Learning for Low-Resource Devices
		Lamprini Pappa, Petros Karvelis and Chrysostomos Stylios, A Review of Automatic Text Summarization: The Case of Greek Legal Documents		Elias Dritsas, Maria Trigka and Phivos Mylonas, Evaluating Machine Learning Approaches for Residential Property Price Estimation
		Markos Koltsidas, Ioannis Karamitsos and Andreas Kanavos, Comparative Analysis of Emerging Layered Metaverse Architectures		Ashutosh Agarwal, Optimizing Classification of Infrequent Labels by Reducing Variability in Label Distribution
		George Pachoulas, Athanasios Christopoulos and Chrysostomos Stylios, Expansion of Open Metaverse Educational Framework (OMEF)		Emmanouil D. Oikonomou, Konstantinos Sakkas, Niki Eleni, Ntagka, Nikolaos Giannakeas, Konstantinos Kalafatakis, Alexandros Bantaloukas-Arjmand, Evripidis Glavas, Alexandros Tzallas and Andreas Miltiadous A LEAP Toward Precision Medicine for Parkinson's Disease
		Fotis Sofoulis, Georgios Drakopoulos, Leonidas Theodorakopoulos and Spyros Sioutas Lessons Learned From Setting Up Kubernetes For Operations On Temporal Graph Neural Networks		Panagiota Athanasiou, Petros Karvelis and Chrysostomos Stylios, Greek Automatic Text Summarization: From General Language Models to Legal Domain Challenges
11:20 -- 11:40		Coffee Break		
11:40 -- 12:40	Plenary Keynote Chair:Chrysostomos Stylios	Sotirios K. Goudos, Professor, University of Thessaloniki, Thessaloniki, Greece, Evolutionary algorithms for Wireless Communications: State-of-the-art and Challenges		
12:40 -- 14:20	Session 5: Scheduling, and Optimization Frameworks Chair: Panayiotis Alefragis	Christos Valouxis, Christos Gogos, Dimitrios Kiosses, Aris Magklaras and Panayiotis Alefragis, An Approach For Computing Lower Bounds for Flexible Job-shop Scheduling Problems	Session V4: ML Methods, AND & Digital Experience , Analytics & Socio-Technical Systems (III) Chair: Ioannis Tsoulos	Giulia Karanxha and Paulinus Ofem, Evaluating Transparency in Artificial Intelligence Systems with the Z-Inspection® Process for Trustworthy Assessment
		Kalliopi Rigopouli, Dimitrios Kotsifakos and Yannis Psaromiligkos, Whale Optimization Algorithm for Training Teachers in Creative Learning Design		Kitty Kioskli, NERO: A Cybersecurity Awareness Ecosystem for SMEs (Virtual Presentation)
		Maria Tzamtzi, Fotis Koumboulis, Dimitrios Fragkoulis, Nikolaos Kouvakas, Klimis Katsiavrias and Konstantinos Katsiavrias, Toward the Development of an Ontology for Supervisory Control and Fault Diagnosis in Water Distribution Networks		Marco Jhimy Capcha Vasquez and Christian Edinson Murga Tirado Development Of Recycled Lightweight Concrete With Intelligent Environmental Monitoring System For Temporary Housing In Vulnerable Regions
		Anastasia Themeli, Dimitrios Kotsifakos and Yannis Psaromiligkos, Leveraging Grey Wolf Optimization Fundamentals for a Learning Design Framework to Proactively Manage the Risk of Student Failure		Ashwaq Almorjan, Mohammed Basher, Miada Almasre and Mona Alkhozae, Cyber Threat Detection and Mitigation on Social Media Using Large Language Models (LLMs): A Systematic Review
		Dimitrios Fragkoulis, Fotis Koumboulis, Maria Tzamtzi and Nikolaos Kouvaka, Supervisor Control and Pump Fault Diagnosis through Flow and Pressure Sensors in a Water Transfer Network		Evangelos Syrmos, Panagiotis Radoglou-Grammatikis, Efklidis Katsaros, Jyoti Sekhar Banerjee, Anastasia Kazakli, Konstandinos Panitsidis, Vasileios Vitsas and Panagiotis Sarigiannidis, Beyond Container CVE Analysis: A GitOps-Based Attestation and Sandbox Framework for Container Supply Chains
14:20 -- 15:10	Lunch			
15:10 -- 16:30	Session 6 Cybersecurity, Privacy & Post-Quantum Security Chair: Christos Koulamas	Lidia Pocero Fraile, Christos Koulamas and Apostolos P. Fournaris, Design and Evaluation of a Post-Quantum Traditional Hybrid Scheme for EDHOC		
		Maria Efthymiopoulou, Apostolos Siokis, Nikolaos Efthymiopoulos, Kostas Ramantas and Christos Verikoukis, Efficient Service Function Chain placement in a Multi-Domain 5G Architecture		
		Dionysia Varvarigou, Kostas Lampropoulos, Spyros Denazis and Paris Kitsos, Simulating Exposed 5G Ports Using a Dockerized HoneyPot Framework for Cybersecurity Analysis in a 5G Testbed		
16:30 -- 17:30	Project Presentation Chair: Chrysostomos Stylios	«An Integrated Computer Vision Interactive Platform for the Execution and Remote Supervision of Digital Exercises for Prevention and Promotion of Physical Fitness and Health» Dimitrios Soumis «An Innovative Framework for Identity and Consent Management for EU Digital and Data Strategies, CONSENTIS» Dionysia Varvarigou «Scaling up the commercialization of R&D, SUCReD» Dimitra Tzouka «Women for Science, Technology, Engineering, and Mathematics in Europe, WeSTEMEU» Dimitra Tzouka «Adriatic Regional Policies for Fostering of Digital Transformation of SMEs» Dimitra Tzouka «Creating Resilient Areas to Develop Lifecycles and Ecosystem Services, CRADLES» Mary Styliou «PREserving BIODiversity in coastal DUNES from tourism pressure, PREBIODUNES» Dimitris Salmas	Design Session V5: Education, E-Learning & Learning Chair: Petros Karvelis	Christos Troussas, Akrivi Krouska, Phivos Mylonas and Cleo Sgouroupoulou, A Rule-based System Integrating Case-Based Reasoning for Adaptive User Interfaces in Personalized Educational Software
				Georgia Kiriakaki, Aglaia Psani, Christos Kyttagias, Ioannis, Psaromiligkos and Ioannis Salmon, A case study for evaluating a digital educational scenario for kindergarten and preschoolers
				Aglaia Psani, Georgia Kiriakaki, Christos Kyttagias, Ioannis Psaromiligkos and Ioannis Salmon, Evaluating a digital educational scenario with gamification: A case study of Vocational Educational students
				Sofia Kasotaki and Nikos Dimokas, Emotional Engagement in STEM Programming: micro:bit and MicroPython vs. Traditional Python in Upper Secondary Education

Legend

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- «Digital Intelligent Urban Services in the Metaverse – a solution for increased competitiveness of small and median cities, METACITY» **Dimitris Salmas**
- «Intelligent Legal Document Management System using Machine Learning and Natural Language Processing methods, +NOMOS» **Panagiotis Georgiou & Georgios Pachoulas**
- «Promoting Technical Standards for Assistive Technology in European Social care services, TechSocialcare» **Athanasios Christopoulos**
- «Boosting Circular Economy Innovation through emerging technologies application, CEI BOOST» **Chrysostomos Stylios**

20:30

Conference Dinner (by invitation voucher only)

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EEST		Day 3: Sunday, September 21st, 2025			
09:30 –10:00		Registration			
10:00 -- 11:20	Special Session: Innovative Approaches and Perspectives in E-Learning	Dionysis Koulouris, Melina Tzoimaka, Argyrios Zafeiriou, Kosmas Pinitas, Athanasios Kallipolitis, Andreas Menychtas and Ilias Maglogiannis, Design of a Multimodal Affective Module for Emotion Recognition in Adaptive Language Learning Systems		Session V6: Artificial Intelligence Applications 	

Legend

On-site presentation

On-line presentation