SMAP 2024 Programme

November 21-22, 2024

Department of Informatics and Computer Engineering

University of West Attica

Egaleo, Athens, Greece

University of West Attica
Department of Informatics and Computer Engineering

Day 1 - November 21, 2024

08:30-08:50	**Welcome - Registration**

08:50-09:00	**SMAP 2024 Opening**
	General Chairs of SMAP 2024 - Welcome Greeting Assistant Professor **Christos Troussas**, University of West Attica, Dept. of Informatics and Computer Engineering

09:00-10:20	**Session A: Multimodal Data Fusion and Personalization** **Chair: Evaggelos Spyrou, University of Thessaly, GR**
	Implementing a Digital Repository for the Cultural and Natural Heritage of the Island of Zakynthos *Stergios Palamas, Yorghos Voutos, Katerina Kabassi and Phivos Mylonas*
	Bridging Decentralized AI and Blockchain: Challenges and Solutions *Shravan Gaddam*
	Integrating IEEE 1451 and IEC 61499 Standards for Enhanced Interoperability in Smart Manufacturing and Transportation Systems *Vahid Tavakkoli, Kabeh Mohsenzadegan, Witesyavwirwa Vianney Kambale and Kyandoghere Kyamakya*
	Personalized Hint Delivery in Multimedia Learning Environments Using Learning Styles: An Integrated Approach with Artificial Neural Networks and Weighted Sum Model *Christos Troussas, Akrivi Krouska, Christos Papakostas, Phivos Mylonas and Cleo Sgouropoulou*

10:20-11:20	**Keynote #1**
	"Identifying social features for modeling emotionally believable human-machine interaction" Professor **Anna Esposito**, University of Campania "Luigi Vanvitelli", Dept. of Psychology

11:20-11:40	**Coffee Break**

11:40-13:20	**Session B: Context-Aware Systems and Adaptation Mechanisms** **Chair: Panagiotis Strousopoulos, University of West Attica, GR**
	Utilizing Fuzzy Weights for Enhanced User Experience in Virtual Museums *Christos Papakostas, Christos Troussas, Akrivi Krouska, Phivos Mylonas and Cleo Sgouropoulou*
	Rule-Based Reasoning for Hardware Fault Detection in IoT Systems Using Electronic Design Automation Tools *Antonios Pliatsios and Michael Dossis*
	Data Mining for Social Network Pattern Recognition: A case study of TikTok in Saudi Arabia *Yaser Miaji and Mohammed Miaji*
	A Novel Decentralised Identity Platform using Blockchain *Sulakshna Puttoo and Roopesh Kevin Sungkur*
	Enhancing Collaborative Learning through Virtual Escape Rooms: Impact on Participants' Perceptions *Akrivi Krouska, Christos Troussas, Panagiotis Karkazis, Phivos Mylonas and Cleo Sgouropoulou*

13:20-14:00	**Lunch Break**

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14:00-15:20	Session C: Knowledge & Data Mining Chair: Giorgos Caridakis, University of the Aegean, GR
	A Personalized Fitness Application for Injury Rehabilitation Using Artificial Neural Networks *Nikolaos Kalofonos, Christos Troussas, Akrivi Krouska, Phivos Mylonas and Cleo Sgouropoulou*
	Locating the optimal advertisement location using saliency estimation *Iakovos Raptis, Maria Tsourma, Anastasios Drosou, Stelios Choumas, Marissi Balioussi and Dimitrios Tzovaras*
	Towards Seamless Data Translation Based on Data Models: A Hybrid AI Framework for Smart Transportation and Manufacturing *Kabeh Mohsenzadegan, Vahid Tavakkoli, Witesyavwirwa Vianney Kambale and Kyandoghere Kyamakya*
	Leveraging social media for personality prediction with GNNs *Vasileios Moschopoulos, Maria Tsourma, Anastasios Drosou, Stelios Choumas, Marissi Balioussi and Dimitrios Tzovaras*

15:20-16:40	Session D: Intelligent Information Systems Chair: Yorghos Voutos, University of West Attica, GR
	Managing Financial Investment and Interest using Blockchain *Bhuvish Nunkoo and Roopesh Sungkur*
	A computational framework for discriminating among different cognitive workloads in EEG signals *Eleftherios Kontopodis, Christodoulos Serafeim, Dionisis Cavouras, Ioannis Kalatzis and Aikaterini Skouroliakou*
	Adversarial Vulnerabilities and Defenses in Social Emotion Recognition *Koushik Chowdhury and Ashik Mahmud Haydari*
	Utilizing Fuzzy Weights to Model Logical Reasoning in Digital Escape Rooms: Dynamic Difficulty Adjustment for Enhanced Digital Skill Development *Christos Troussas, Akrivi Krouska, Christos Papakostas, Phivos Mylonas and Cleo Sgouropoulou*

16:40-18:00	Session E: Machine Learning in User Behavior and Content Recommendation Chair: Akrivi Krouska, University of West Attica, GR
	MMREC: LLM Based Multi-Modal Recommender System *Jiahao Tian, Jinman Zhao, Zhenkai Wang and Zhicheng Ding*
	Personalized Learning via Gamified Virtual Environments: Exploring Insights and Impact *Panagiotis Strousopoulos and Christos Troussas*
	C-LINK Agent. Connecting social media post generation with recommender systems *Konstantinos Ordoumpozanis, Georgios Trichopoulos and George Caridakis*
	Crop Yield Recommendation Using Machine Learning *Pooja Bagane, Obsa Amenu, Lahitanshu Das, Omkar Potdukhe, Manraj Singh Gandhi, Sonali Kothari*

19:00	Social Dinner

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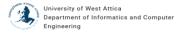
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Day 2 - November 22, 2024

08:00-08:30	Registration

08:30-09:50	**Session F: Content Manipulation** **Chair: Yorghos Voutos, University of West Attica, GR**
	Securix: Mobile Security SDK *Sonali Kothari, Tejas Ulbhaje, Vishant Kalwani, Yash Mangale, Pooja Bagane*
	AI based Digital Journalism: Potential, Challenges and Future Directions *Zenonas Theodosiou, Venetia Papa and Andreas Lanitis*
	Semantic context modeling and extraction with extended, augmented, or virtual reality, for the digital representation of a historical or archaeological monument *Alexandra Nikolopoulou, Dimitrios Kotsifakos, Dimitrios Kiriakos, Yannis Psaromiligkos, Christos Douligeris and Michael Dossis*
	Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information? *Koralia Trikalioti, Dimitrios Kotsifakos and Christos Douligeris*

09:50-10:50	**Keynote #2**
	"Extended Reality Environments as Emerging Communication and Collaboration Spaces: Prospects and Pitfalls" Associate Professor **Spyros Vosinakis**, University of the Aegean, Dept. of Product and Systems Design Engineering

10:50-11:10	Coffee Break

11:10-12:30	**Session G: Social Media Insights and Analytics** **Chair: Andreas Kanavos, Ionian University, GR**
	Social Media Insights into Climate Change: Sentiment Analysis Using VADER and RoBERTa *Gerasimos Vonitsanos, Andreas Kanavos, Georgios Bardis and Phivos Mylonas*
	Enhancing Emotion Classification with a Hybrid BERT and CNN Architecture *Orestis Papadimitriou, Athanasios Kanavos, Gerasimos Vonitsanos, Manolis Maragoudakis, Panagiotis Karkazis and Phivos Mylonas*
	Twitter and Emotions: Exploring Sentiment Detection *Jose Carmen Morales Castro Castro, Tirtha Prasad Mukhopadhyay, Rafael Guzman Cabrera Mukhopadhyay and John Baker*
	Performance and Security Analysis of the Diffie-Hellman Key Exchange Protocol *Elias Dritsas, Maria Trigka and Phivos Mylonas*

12:30-13:50	**Session H: Advances in Semantic Web Technologies for Personalization** **Chair: Maria Trigka, University of West Attica, GR**
	Framework for Designing Learning Activities to Manage the Risk of Failure in e-Learning Courses *Anastasia Themeli, Dimitrios Kotsifakos and Yannis Psaromiligkos*
	Embodied and Intelligent Approaches to Cultural Information Retrieval *Nikos Fragakis, Georgios Trichopoulos and George Caridakis*
	Power Iteration Graph Clustering With functools Higher Order Methods *Georgios Drakopoulos, Georgios Bardis and Phivos Mylonas*
	Assessment and modeling of augmented reality applications for the management and automation of systems operating in real spaces: an innovative pedagogical proposal for the educational standards of Vocational Education and Training in Greece *Dimitrios Kiriakos, Dimitrios Kotsifakos and Yannis Psaromiligkos*

13:50-14:00	**SMAP 2024 Closing**