

Wednesday, 12 November 2025		Thursday, 13 November 2025	
08:30 - 13:00	Registration	08:30 - 13:00	Registration
09:00 - 9:10	Welcome Remarks (Prof. Sudip Chakraborty, Chair ICAI-TEMS)	09:00 - 09:30	Keynote 3: <i>Cognitive Buildings: Challenges and Advancements</i> (Dr. Antonio Guerrieri)
09:10 - 09:20	Welcome Remarks (Mary Ellen Randall, IEEE President-Elect)	09:30 - 10:50	Session 3: <i>Digital Transformation and Cyber-Physical Systems</i>
09:20 - 09:30	Welcome Remarks (Sudeendra Koushik, TEMS President-Elect)	10:50 - 11:15	Coffee Break
09:30 - 09:40	Welcome Remarks (Prof. Giancarlo Fortino, IEEE Fellow)	11:15 - 12:35	Session 4: <i>Data Traceability and Sustainable Supply Chain Systems</i>
09:40 - 09:50	Institutional Welcome and Opening (Prof. Gianluigi Greco, Rector, UNICAL)	12:35 - 14:00	Lunch Break
09:50 - 10:50	DL Lecture (IEEE President-Elect Mary Ellen Randall)	14:00 - 14:30	Keynote 4: <i>The Next Frontier of AI Adoption: Achieving Transparency and Trust through Knowledge-Centric Explainable Systems</i> (Prof. Antonio L. Alfeo)
10:50 - 11:15	Coffee Break	14:30 - 15:50	Session 5: <i>User-Centric Systems and Biomedical Sensing</i>
11:15 - 11:45	Keynote 1: <i>Bio-inspired Artificial Intelligence for coordinating robotic swarms in unknown environments</i> (Prof. Mario Giovanni Cimino)	15:50 - 16:15	Coffee Break
11:45 - 13:05	Session 1: <i>Architectures and Learning Paradigms in Artificial Intelligence</i>	16:15 - 17:00	Concluding Remarks and Announcement
13:05 - 14:30	Lunch Break		
14:30 - 15:00	Keynote 2: <i>Light as a Navigator: A Silicon Photonics Roadmap for Positioning, Navigation &amp; Precision Pointing</i> (Prof. Francesco Dell'Olio)		
15:00 - 16:40	Session 2: <i>Circular Economy and Sustainable Industrial Systems</i>		
16:20 - 16:45	Coffee Break		
16:45 - 17:45	IEEE-BoG Meeting		
19:30 - 22:00	Gala Dinner		

<b>Session 1: Architectures and Learning Paradigms in Artificial Intelligence</b> Wednesday, 12 November 2025		
Hour	Paper ID	Title
11:45	105	<b>Hardware Accelerators For A Sustainable AI Future</b> Esteban Garzón (Univ. of Calabria)
12:05	115	<b>Explaining Transformers Through Similarity Difference and Uniqueness Masks – A Pilot Study</b> Marco Parola (Univ. of Pisa), Mohammad Naser Sabet Jahromi (Aalborg Univ.), Giovanni Bergami (Univ. of Pisa), Mario G. C. A. Cimino (Univ. of Pisa), Thomas B. Moeslund (Aalborg Univ.)
12:25	117	<b>Meta-token Learning for Thermal Object Detection with Transformers</b> Marco Parola (Univ. of Pisa), Anders S. Johansen (Aalborg Univ.), Neelu Madan (Aalborg Univ.), Mario G. C. A. Cimino (Univ. of Pisa), Kamal Nasrollahi (Aalborg Univ.), Thomas B. Moeslund (Aalborg Univ.)
12:45	140	<b>From Single-Target to Multi-Target Detection: Silicon Nitride Microring Resonators for Viral Diagnostics</b> Annabella la Grasta (Polytechnic Univ. of Bari), María Isabél Gómez-Gómez (Polytechnic Univ. of Valencia), Amadeu Griol (Polytechnic Univ. of Valencia), Estefanía Gómez (Polytechnic Univ. of Valencia), Alejandro Martínez (Polytechnic Univ. of Valencia), Francesco Dell'Olio (Polytechnic Univ. of Bari)
<b>Session 2: Circular Economy and Sustainable Industrial Systems</b> Wednesday, 12 November 2025		
Hour	Paper ID	Title
15:00	121	<b>Circular Economy in Kenya: an overview of plastic waste management and second-hand clothing trade</b>

		Lucia De Seta (Poli. di Milano), Federica Acerbi (Poli. di Milano), Sergio Terzi (Poli. di Milano)
15:20	129	<b>Fabric Classification for Textile Waste Circular Economy</b> Kanan (Indira Gandhi Delhi Tech. Univ.), Ritvik Chawla, Gaurav Singh (Innovaccer), Chirag Kumar (LNM Inst. of Info. Tech.)
15:40	136	<b>From Waste to Resource: Active Strategies for Food Waste Reduction through Green and Circular Economy</b> Vittorio Palermo (Univ. of Calabria), Sudip Chakraborty (Univ. of Calabria), Stefano Curcio (Univ. of Calabria)
16:00	141	<b>A Comparative Analysis of Machine Learning Algorithms for Credit Card Fraud Detection</b> Arush Dange (Symbiosis Int. Deemed Univ.), Nachiket Chaudhari (Symbiosis Int. Deemed Univ.), Rajashree Jain (Symbiosis Int. Deemed Univ.), Milind Talele (Symbiosis Int. Deemed Univ.), Dr. Taher M. Ali (Gulf Univ. for Science and Tech.)
<b>Session 3: Digital Transformation and Cyber-Physical Systems</b> Thursday, 13 November 2025		
Hour	Paper ID	Title
09:30	130	<b>Embodying swarm coordination in robotic cyber-physical systems</b> Mario G.C.A. Cimino (Univ. of Pisa), Pierfrancesco Foglia (Univ. of Pisa), Salvatore Arancio Febbo (Univ. of Pisa), Cosimo A. Prete (Univ. of Pisa)
09:50	120	<b>Mobile Gateways with Multi-Interface Support for LPWAN-Enabled Air Quality Monitoring</b> Luis Miguel Samaniego Campoverde (Univ. of Calabria), Arijit Dutta (Univ. of Calabria), Mauro Tropea (Univ. of Calabria), Floriano De Rango (Univ. of Calabria)
10:10	131	<b>Digitalization of Processes in Gastronomic Microenterprises in Baja California: Proposal of a Mobile Application and Point of Sale System for Operational</b>

		<b>Management</b> Juan Antonio Meza-Fregoso (Univ. of Baja California), Ricardo Rosales-Cisneros (Univ. of Baja California), Eduardo Ahumada-Tello (Univ. of Baja California), Laura Yolanda Vega-Hernandez (Univ. of Baja California)
10:30	101	<b>A Case Study of Hindering Factors in Digital Transformation Processes</b> André-Paul Widera (Management Center Innsbruck Univ.), Christian Ploder (Management Center Innsbruck Univ.)
<b>Session 4: Data Traceability and Sustainable Supply Chain Systems</b> Thursday, 13 November 2025		
Hour	Paper ID	Title
11:15	116	<b>Digital Product Passport for Circular Construction: a framework based on life cycle perspective</b> Maneesha Dias (Tampere University), Hongxiu Li (Tampere University), Ulla A. Saari (Tampere University), Joshua Karlsson (Tampere University), Joaquín Ordieres-Meré (Univ. Politécnica de Madrid), Muhammad Shafique (Brunel Univ. of London), Xiangming Zhou (Brunel Univ. of London)
11:35	128	<b>A Blockchain-Based Framework for Decentralized Traceability in the Dairy Supply Chain Management</b> Silvia Pugliese (Univ. of Calabria), Maria Teresa Gaudio (Univ. of Calabria), Pierangelo Veltri (Univ. of Calabria), Stefano Curcio (Univ. of Calabria)
11:55	124	<b>Satellite Monitoring of Microplastics: an overview</b> Domenico Vito (Center for Human Dynamics in the Mobile Age), Carol Maione (Poli. di Milano), Gabriela Fernandez (Center for Human Dynamics in the Mobile Age)
12:15	125	<b>Digital Transformation and Labor Regulation: A Comparison of Law 2466 of 2025 with International Experiences</b> César Vilorio-Núñez (Univ. Tecnológica de Bolívar), Erwin J. Sacoto-Cabrera (Univ. Politécnica Salesiana), Eduardo Ahumada-Tello (Univ. of Baja California)

<b>Session 5: User-Centric Systems and Biomedical Sensing</b> Thursday, 13 November 2025		
Hour	Paper ID	Title
14:30	102	<b>Assessing the User Experience of Extended Reality Devices for (Dis)Assembly: A Classroom Study</b> Brandon S. Byers (ETH Zurich), Eleftherios Triantafyllidis (ETH Zurich), Thibaut Menny (ETH Zurich), Martin Schulte (Design Technologies Herzog & de Meuron), Catherine De Wolf (ETH Zurich)
14:50	122	<b>Adaptive Segmentation of Oral Cavity Lesions via Color-based Custom Index and Differential Evolution</b> Manilo Monaco (Univ. of Salerno), Sabrina Senatore (Univ. of Salerno), Mario G. C. A. Cimino (Univ. of Pisa), Olga Di Fede (Univ. of Palermo)
15:10	139	<b>Innovations in Bioplastic Production from Waste and the Role of Computer-Aided Optimization</b> Gerardo Coppola (Univ. of Calabria), Sudip Chakraborty (Univ. of Calabria), Stefano Curcio (Univ. of Calabria)
15:30	142	<b>A Customer-Centric Approach to enhance Payment Experience in EU &amp; UK Markets Unblocking Offline PINs at POS</b> Kartik Mehta (HSBC Software Development), Milind Talele (HSBC Software Development), Sandeep Budhineni (HSBC Software Development)