10–13 NOVEMBER 2026 · PISA, ITALY

IEEE ICAI-TEMS 2026

Paper Sessions

Le Benedettine Congress Centre

At a glance

Wednesday 11 November

	Room A	Room B	Room C	Room D
10.00–11.00	T12 · 3 papers	T6 · 3 papers	T3 · 3 papers	T5 · 3 papers
11.20–13.00	T12 · 5 papers	T6 · 5 papers	T1 · 4 papers	T4 · 3 papers

Thursday 12 November

	Room A	Room B	Room C	Room D
9.30–10.50	T12 · 4 papers	T14 · 4 papers	T7 · 4 papers	T15 · 4 papers
11.10–13.10	T12 · 6 papers	T14 · 6 papers	T7 · 4 papers	T15 · 4 papers
15.30–16.30	T11 · 3 papers	T16 · 3 papers	T2 · 3 papers	T8 · 3 papers
16.50–17.50	T11 · 3 papers	T16 · 3 papers	T2 · 3 papers	T8 · 3 papers

Friday 13 November

	Room A	Room B	Room C	Room D
9.00–10.40	General · 5 papers	T13 · 5 papers	T9 · 5 papers	T10 · 5 papers
11.00–12.00	General · 3 papers	T13 · 3 papers	General · 3 papers	—

Tracks

- **T1** AI Methods for Diagnostic
- **T2** CAD-centric Digital Manufacturing
- **T3** Computer Vision
- **T4** Security and Trust of Systems
- **T5** Intelligent and Cognitive Robotic Systems
- **T6** Cybernetics
- **T7** Smart Agriculture & Digital Farming
- **T8** AEC Industry & AI
- **T9** Mechanistic Interpretability
- **T10** Decentralized Energy Management
- **T11** Wearable Sensing & Smart Systems
- **T12** Digital Technologies for Sustainability
- **T13** AI for Healthcare Management
- **T14** Decision Intelligence
- **T15** Building & Urban Sustainability
- **T16** Intelligent Transport Systems

General Track

Each slot: 20 min — 15 min presentation + 5 min Q&A

Wednesday 11 November

6 tracks · 29 papers · Rooms A–D

T12 Digital Technologies for Sustainability

Room A · 8 papers

10.00–10.20	ID 6	**Impact of Users' Behavior on Digital Service Energy Consumption** Nsidibe Bassey *(University of Ibadan)*; Ana Lucia Varbanescu *(University of Twente)*; Benny Akesson *(TNO-ESI & University of Amsterdam)*
10.20–10.40	ID 11	**The Greenwashing Linguistic Index: A Digital Text Mining Framework for Sustainability Accountability** Eleonora Cirone *(University of Rome Tor Vergata)*; Francesca Di Pillo *(Sapienza University of Rome)*; Giulia Palombi *(Universitas Mercatorum)*; Francesco Magliaro *(Sapienza University of Rome)*
10.40–11.00	ID 12	**From Impact Measurement to Disclosure: Life-Cycle-Based Methodologies for ESG Reporting under the CSRD** Sara Ianniello, Livio Cricelli, Serena Strazzullo *(University of Naples Federico II)*
Coffee break · 11.00–11.20		
11.20–11.40	ID 14	**Performance Metrics or Future Commitments? Low-Resource Sustainability Disclosure Classification with Large Language Models** Seyed Alireza Mousavian Anaraki, Danilo Croce, Roberta Costa, Luigi Tiburzi, Armando Calabrese, Roberto Basili *(University of Rome Tor Vergata)*
11.40–12.00	ID 26	**A Topic Modelling Approach to Disclosure Mapping for Twin Transition Accountability** Nicoletta Maria Strollo, Tamara Menichini *(Niccolò Cusano University)*
12.00–12.20	ID 34	**Smart sustainability assessment: leveraging digital technologies in life cycle approaches** Alba Bruno, Tamara Menichini, Nicoletta Maria Strollo *(Niccolò Cusano University)*
12.20–12.40	ID 37	**Modeling CSRD Double Materiality with BPMN 2.0 and Neuro-Symbolic AI** Nicoletta Maria Strollo, Pier Mattia Basciano, Tamara Menichini, Salvatore Monteleone, Giovanni Farina *(Niccolò Cusano University)*
12.40–13.00	ID 46	**The Twin Transition toward Luxury Fashion 5.0: Enabling Circular and Human-Centered Sustainability through Industry 4.0 technologies** Marta Menegoli, Maria Elena Latino, Maria Laura Giangrande *(University of Salento)*

Wednesday 11 November — continued

T6 Cybernetics

Room B · 8 papers

10.00–10.20	ID 20	**Review of Imbalanced Data Solutions for Classification** Mohammed Roudani *(Hassan II University of Casablanca)*; Karim El Moutaoukil *(Sidi Mohamed Ben Abdellah University)*; Abdessamad Tridane *(United Arab Emirates University)*; Giulio Pisaneschi *(Institute of Clinical Physiology, CNR)*
10.20–10.40	ID 126	**Training-Free Reuse of a Single-Task DDQN for Energy-Aware Multi-Request UAV Routing on Graphs** Gabriele Gemignani *(University of Pisa)*; Adolfo Perrusquía *(Cranfield University)*; Lorenzo Pollini *(University of Pisa)*; Antonios Tsourdos *(Cranfield University)*
10.40–11.00	ID 57	**Linking Mosquito Ecology and Serotype Immunity in Dengue Transmission Dynamics** Matteo Frascarelli, Alberto Landi, Piero Manfredi *(University of Pisa)*; Giulio Pisaneschi *(National Research Council)*
Coffee break · 11.00–11.20		
11.20–11.40	ID 50	**Learning versus Planning for Autonomous Inspection of Resident Space Objects** Fabrizio Pilone *(University of Pisa)*; Mattia Varile, Federica Paganelli *(Aiko Space)*; Giordana Bucchioni *(University of Pisa)*
11.40–12.00	ID 65	**SNR-Constrained AUV Following of Marine Mammals Using Reusable DRL Controllers** Alessandra Donnini, Paolo Marinelli, Simona Casini, Andrea Munafò *(University of Pisa)*
12.00–12.20	ID 67	**Weather-Aware Multimodal Sensor Fusion for Robust Perception** Marco Borgo *(Sorbonne University)*; Mattia Curri *(University of Bari Aldo Moro)*; Ossama Zaroual *(École Polytechnique)*; Pierpaolo Serio *(University of Pisa)*; Giulio Pisaneschi *(National Research Council)*; Mario G. C. A. Cimino *(University of Pisa)*
12.20–12.40	ID 81	**A Low-Cost Tabletop Satellite Simulator for Attitude-Control Education** Umberto Sperto, Andrea Dan Ryals, Andrea Arcarisi, Lorenzo Pollini, Giordana Bucchioni *(University of Pisa)*
12.40–13.00	ID 191	**Reachability Cost, Not Hop Count: Energy Margins for UAV Site Servicing on Weighted Graphs with Deep Q-Learning** Gabriele Gemignani, Lorenzo Pollini *(University of Pisa)*

Wednesday 11 November — continued

T3 Computer Vision

Room C · 3 papers

10.00–10.20 ID 72

A Non-Volatile Memory Centric Platform for Energy-Efficient Vision Transformer Networks

Esteban Garzón, Rebecca Speranza, Cristhopher Mosquera, Marco Lanuzza *(University of Calabria)*

10.20–10.40 ID 99

Using Deep Learning for Automated Damage Detection on Logistics Packages

Pietro Calabrese, Rambod Rahmani *(University of Pisa)*; Anotnio Luca Alfeo *(eCampus University)*; Mario Giovanni Cosimo Antonio Cimino, Pierfrancesco Foglia, Cosimo Antonio Prete *(University of Pisa)*

10.40–11.00 ID 139

Audio Spectrogram Transformer for Multi-Temporal Hyperspectral Grapevine Variety Classification Using PRISMA Satellite Imagery

Manilo Monaco, Laura Candela, Roberto Formano, Francesco Longo, Simona Zoffoli *(Italian Space Agency)*; Alessandro De Rosa, Gaetano Vivaldi *(University of Bari Aldo Moro)*; Mario G.C.A. Cimino *(University of Pisa)*; Sabrina Senatore *(University of Salerno)*

T1 AI Methods for Diagnostic

Room C · 4 papers

11.20–11.40 ID 63

Artificial Intelligence-Based Industrial Diagnostic System for Automated Manufacturing Defect Identification

Mauricio Aaron Perez Romero, Chantal Santiago Domínguez, Danna Paola Remigio Perez *(Instituto Politécnico Nacional)*

11.40–12.00 ID 74

StradaVision: An AI-Driven Diagnostic Framework for Road Predictive Maintenance via Section-Wise Condition Indexing

Domenico Profumo *(iPool S.r.l.)*; Raza Akbar *(University of Pisa)*; Laura Fiorella *(Institute for Chemical-Physical Processes of the Italian Research Council (CNR-IPCF))*; Francesco D'Alessandro *(iPool S.r.l.)*; Matteo Asolucci, Andrea Bongi *(iDNA S.r.l.)*; Chiara Cecchetti, Rudy Fastelli *(InTouch S.r.l.)*; Gaetano Licitra *(University of Pisa)*

12.00–12.20 ID 82

Self-Supervised Instance Segmentation Framework for Defect Detection in Photovoltaic Electroluminescence Cells with Limited Data Annotation

Ula Hijjawi, Subhash Lakshminarayana, Tianhua Xu *(University of Warwick)*; Habib Murtaza, Mostafizur Rahman *(Manufacturing Technology Centre)*

12.20–12.40 ID 125

Hybrid Ensemble Machine Learning for Robust Early Cancer Prediction: A Comparative Cross-Dataset Study on Oral and Breast Cancer

Sadia Aziz *(Shaheed Zulfikar Ali Bhutto Institute of Science and Technology)*; Rabia Aziz *(Ghent University)*; Dr. Ubaida Fatima *(NED University of Engineering and Technology Karachi)*

Wednesday 11 November — continued

T5 Intelligent and Cognitive Robotic Systems

Room D · 3 papers

10.00–10.20 ID 83

YOLO-based Multimodal Rock Detection for a Lunar Rover with Sim-to-Real Domain Bridging

Martina Burgisi *(University of Pisa)*; Abhirup Bose *(European Space Agency)*; Luca Ostrogovich *(University of Naples Federico II)*; Aidan Cowley *(European Space Agency)*; Mario G.C.A. Cimino *(University of Pisa)*

10.20–10.40 ID 87

A Cognitive Long-Term Memory Architecture for Interactive Conversational Agents

Cristina Maria Rita Lombardo, Leonardo Bargiotti, Marco Pardini *(University of Pisa)*; Ioanna Giorgi, Giovanni Luca Masala *(University of Kent)*; Alberto Greco, Enzo Pasquale Scilingo, Mario G.C.A. Cimino *(University of Pisa)*

10.40–11.00 ID 88

Continuous inference-time zero-shot learning in a cognitive architecture

Christopher Walmsley, Ioanna Giorgi, Giovanni Masala *(University of Kent)*

T4 Security and Trust of Systems

Room D · 3 papers

11.20–11.40 ID 30

Physics-Aware Anomaly Detection for GNSS Cyber-Defence: A Neuro-Symbolic Approach to Spoofing Resilience

Pier Mattia Basciano, Giovanni Farina, Salvatore Monteleone *(Niccolò Cusano University)*

11.40–12.00 ID 54

Mapping software inventory entries into CPEs: an agentic approach

Fabio Fadda *(University of Cagliari)*; Marco Pardini, Giuseppe Lettieri, Mario Giovanni Cosimo Antonio Cimino, Gianluca Dini *(University of Pisa)*

12.00–12.20 ID 91

Static-Analysis-Guided Agentic LLMs for Vulnerability Discovery in Free5GC

Nicolò Termine *(Politecnico di Torino)*; Andrea Bernardini, Raffaele Nicolussi, Lorenzo Cannella, Mariano Forte, Francesco D'Alterio *(Fondazione Ugo Bordoni)*; Mario Lezoche *(Université de Lorraine)*

Thursday 12 November

8 tracks · 60 papers · Rooms A–D

T12 Digital Technologies for Sustainability

Room A · 10 papers

9.30–9.50	ID 49	**Sentinel-1 Monitoring of Ground Displacement in Ischia Island** Chiara De Fabrizio, Francesca Giannone *(Niccolò Cusano University)*; Valerio Baiocchi, Chiara Magurano *(Sapienza University of Rome)*
9.50–10.10	ID 77	**A Process-Driven Data Framework for BIM-Supported Zero-Energy Building Renovation** Orjola Braholli, Nigar Novruzova, Dietmar Siegele, Dominik Matt *(Fraunhofer Italia)*
10.10–10.30	ID 143	**Economic Valuation of Modular Static Synchronous Series Compensation in Critical Grid Infrastructure of Eastern Europe** Kiril Anguelov *(TUS)*; Vladimir Zinoviev *(IEEE TEMS Bulgaria Chapter)*
10.30–10.50	ID 149	**Blockchain-Based Digital Product Passports in Construction Supply Chains: Supporting Coordination, and Circular Material Management** Amal Bouihat, Pierluigi Zerbino, Davide Aloini, Francesco Ardizzoni, Gianluca Dini *(University of Pisa)*
Coffee break · 10.50–11.10		
11.10–11.30	ID 153	**Factors Associated with Buying Goods and Services Through E-Commerce in Mexico, 2025** Juan Meza-Fregoso, Eduardo Ahuamada-Tello *(Universidad Autónoma de Baja California)*; Dulce Avila Camacho *(Universidad Autónoma de Nayarit)*
11.30–11.50	ID 161	**Unveiling the Industrial Requirements for Assessing Circularity and Sustainability along Products Lifecycle** Vito Del Vecchio, Alessio Fisiola, Mariangela Lazoi, Giorgia Specchia *(University of Salento)*; Marco Pezzutti *(Consultant company)*
11.50–12.10	ID 172	**Toward Decentralized Bioplastic Production: A Perspective on In-House Production Plants Utilizing Food Industry Side-Streams** Gerardo Coppola, Silvia Pugliese, Sudip Chakraborty, Pierangelo Veltri, Stefano Curcio *(University of Calabria)*
12.10–12.30	ID 177	**From Thermal Exposure to Urban Cooling Policy Priorities Across Gulf Cooperation Council Cities** Gowhar Meraj, Rabin Rabin Chakrabortty, Hosni Ghedira, Tarig Ali *(American University of Sharjah)*
12.30–12.50	ID 188	**A New Era in PFAS Destruction: Addressing the Challenges of Circular Remediation** Giuseppe D'Andrea, Francesco Petrosino, Sudip Chakraborty, Stefano Curcio *(University of Calabria)*
12.50–13.10	ID 193	**Impact of Data-Driven Organizational Capabilities on Strategic Decision-Making** Eduardo Ahumada-Tello *(Universidad Autónoma de Baja California)*; Jessica Lopez-Garcia *(Universidad Tecnológica de Bolívar)*; Juan Antonio Meza-Fregoso, Hector Alejandro Acuna-Cid *(Universidad Autónoma de Baja California)*; Cesar Viloria-Nuñez *(Universidad Tecnológica de Bolívar)*

Thursday 12 November — continued

T11 Wearable Sensing & Smart Systems

Room A · 6 papers

15.30–15.50 ID 10	Integrative Home Lighting Intervention and Sleep in Neurodivergent Children During the Nordic Winter	Daniel Sabado Manansala, Mohamed Askalani *(Lund University)*; Luca Zaniboni *(Technical University of Denmark)*; Myriam Aries *(Jönköping University)*; Marie-Claude Dubois, Niko Gentile *(Lund University)*
15.50–16.10 ID 21	End-to-End sEMG and Camera-Based Platform for Blink Restoration in Unilateral Facial Paralysis	Carlos Santos Mayo, Tamara Bugli, Pietro Bonazzi, Tommaso Polonelli *(ETH Zurich)*; Anthia Papazoglou *(Kantonsspital Aarau)*; Michele Magno *(ETH Zurich)*
16.10–16.30 ID 40	Physiological, cognitive, and subjective responses to conventional and NIR-enriched metameric white light sources	Irem Ekin Atasoy, Bengisu Usluer, Merve Öner *(Bilkent University)*; Dorukalp Durmus *(Pennsylvania State University)*
Coffee break · 16.30–16.50		
16.50–17.10 ID 41	Evaluating the added value of skin temperature measurements for personal thermal sensation assessment	Roberto Rugani *(University of Pisa)*; Giulia Torriani *(Eurac Research)*
17.10–17.30 ID 108	Wearable and Portable Sensors to Monitor Driver's Vigilance Level	Fabio Bisegna, Flavia Vespasiano, Chiara Burattini *(Sapienza University of Rome)*
17.30–17.50 ID 133	An Index-Based Framework for Assessing Comfort, User Behaviour and Energy Use in Offices with Personal Environmental Control Systems	Alessia Alvich, Marina Bonomolo, Tancredi Testasecca, Marco Beccali *(University of Palermo)*; Michele Zinzi *(ENEA)*

T14 Decision Intelligence

Room B · 10 papers

9.30–9.50 ID 55	Towards AI-Supported Decision-Making in Medical Device Procurement: From Tender Criteria to Meta-Criteria	Mattia Barsanti, Salvatore Tallarico, Luisa Pellegrini, Riccardo Dulmin, Simone Lazzini *(University of Pisa)*
9.50–10.10 ID 94	AI-Enabled Decision Intelligence for Leadership Effectiveness in Multicultural Project Environments	Ali Afshar *(University of Vienna)*; Ali Akbar Nateqi Sabet *(IAU Science and Research Branch)*
10.10–10.30 ID 110	From Warehouse Requirements to Cognitive Digital Twin Architectures: A Requirement-Elicitation Framework for Human-Digital Decision Support	Carine Breidy, Mario Lezoche *(Université de Lorraine)*; Diego Torres *(Universidad Nacional de La Plata)*; Hervé Panetto *(Université de Lorraine)*; Melanie Glibusic *(MG-IB)*
10.30–10.50 ID 151	Where Should the Human Be? Decision-Criticality Oversight for Defensible AI-Assisted Tender	Ali Alsayegh *(University of Strathclyde)*; Salisu Uba *(Natquest)*

Thursday 12 November — continued

T14 Decision Intelligence

Room B · continued

11.10–11.30	ID 155	**CoInnovate: A Framework for Collaborative Innovation in Early-Stage Software Startups** Uchechukwu Nwogu *(Dalhousie University)*; Muhammad Faraz *(Kaunas University of Technology)*; Marco Cuvero *(Brunel University)*; Richard Evans *(Dalhousie University)*
11.30–11.50	ID 164	**AI Agents in IT Audits: How Oversight Modes impact Accuracy in Emergency Access Control Testing** Zahra Abedi, Joost Visser, Christoph Johann Stettina *(Leiden Institute of Advanced Computer Science)*
11.50–12.10	ID 168	**Strategic Intent in AI Adoption: A Dynamic Capability Analysis of Dutch Bank Disclosures** Vinay Oedayrajsingh Varma, Joost Visser *(Leiden University)*
12.10–12.30	ID 169	**OPMAN – AI-assisted operations management decision-making training platform** Tarmo Koppel *(Tallinn University of Technology)*
12.30–12.50	ID 195	**Can Confidence Support AI Deferral? Classifier-Side Evidence Under Controlled Competence Degradation** Francesco Lelli *(SUPSI)*
12.50–13.10	ID 200	**Providing Choice in Academic Planning: A Population-Based Approach to Curriculum Balancing** Pedro Godoy, Cristian Soriano, José Escobar, Camila Diaz, María Cristina Riff *(Universidad Técnica Federico Santa María)*

T16 Intelligent Transport Systems

Room B · 6 papers

15.30–15.50	ID 134	**Capacity assessment in railway stations: impact of node complexity on computational methods** Claudia Musetti, Stefano Ricci *(Sapienza University of Rome)*
15.50–16.10	ID 144	**Performance evaluation of a traditional rail-based two-echelon urban freight distribution system: a case study in Livorno, Italy** Daniele Conte, Marino Lupi, Lorenzo Brocchini, Giada Marconi, Alessandro Farina *(University of Pisa)*
16.10–16.30	ID 146	**How Do Mountain Residents Perceive Innovative Last-Mile Delivery Services? A Comparative Study of Conventional Truck, Cargo Hitching and Drone Delivery** Alessia Grosso, Giovanni Longo *(University of Trieste)*

Thursday 12 November — continued

T16 Intelligent Transport Systems

Room B · continued

16.50–17.10 ID 148
From Product Carbon Footprints to Business Value: Monetizing Sustainability Data in Transport Systems and Industrial Data Spaces
Annika Schmidt, Hui Lin Kong, Lars Schnieder *(Technische Universität Braunschweig)*

17.10–17.30 ID 131
From Sustainability Data to Climate Value: An Information Architecture for Interoperable Avoided Emissions
Annika Schmidt, Lars Schnieder *(Technische Universität Braunschweig)*

17.30–17.50 ID 132
Towards Robust Avoided Emissions Reporting for Rail Modal Shift: A Comparative Framework Analysis and Mobility Archetype Demonstration
Annika Schmidt *(Technische Universität Braunschweig)*; Patanjil Gokhale, Baris Albayrak *(Friedrich-Alexander-Universität Erlangen-Nürnberg)*; Lars Schnieder *(Technische Universität Braunschweig)*

T7 Smart Agriculture & Digital Farming

Room C · 8 papers

9.30–9.50 ID 19
Edge AI Grape Leaf Disease Detection in a LoRaWAN-Based Vineyard Monitoring System
Tsegay Gebrelibanos, Carlo Vallati *(University of Pisa)*; Fabrizio Palla *(Istituto Nazionale di Fisica Nucleare (INFN))*; Angela Zinnai *(University of Pisa)*; Bruno Augusto Casu Pereira De Sousa, Piero Giorgio Verdini *(Istituto Nazionale di Fisica Nucleare (INFN))*

9.50–10.10 ID 84
Workflows modeling for Agricultural Decision Support Systems in the agentic AI era
Pietro Calabrese *(University of Pisa)*; Salvatore Arancio Febbo *(Polo Sistemi Logistici di Livorno)*; Gianpaolo Formica *(Albani OP)*; Samuele Risoli *(University of Pisa)*; Antonio Luca Alfeo *(eCampus University)*; Lorenzo Cotrozzi *(University of Pisa)*; Mario Giovanni Cosimo Antonio Cimino *(Polo Sistemi Logistici di Livorno)*

10.10–10.30 ID 96
Proximal and UAV-Based Sensing to Assess Soil-Mediated Vine Responses under Different Irrigation Regimes
Giacomo Palai *(University of Pisa)*; Simone Priori *(University of Tuscia)*; Simone Nesi, Giovanni Caruso *(University of Pisa)*

10.30–10.50 ID 107
A Multi-Year and Multi-Site Hyperspectral Assessment of Flavescence dorée in Tuscan Vineyards
Marco Carli, Lorenzo Pippi, Samuele Risoli, Giacomo Lorenzini, Elisa Pellegrini, Cristina Nali, Lorenzo Cotrozzi *(University of Pisa)*

Thursday 12 November — continued

T7 Smart Agriculture & Digital Farming

Room C · continued

11.10–11.30 ID 111
Spectral Sensing for Horticultural Crop Monitoring: From Quality and Safety Assessment to Stress Detection
Lorenzo Pippi *(University of Pisa)*

11.30–11.50 ID 128
Automated citrus pest classification with ConvNeXtXLarge featurization and varied data balance
Srikrishna Kataru *(The Harker School)*; Pallavi Bajpai *(AIClub Research Institute)*

11.50–12.10 ID 152
Evaluation of autonomous navigation patterns for robotic mowing in simulated chestnut orchards
Sofia Matilde Luglio, Lorenzo Gagliardi, Eugenia Matia Ida Ronghi *(University of Pisa)*; Mattia Fontani *(University of Florence)*; Christian Frasconi, Michele Raffaelli, Marco Fontanelli *(University of Pisa)*

12.10–12.30 ID 196
Toward an AI-Enabled Decision Support System for Adaptive Downy Mildew Management in Precision Viticulture: The Role of the wAIne Project
Samuele Risoli, Lorenzo Pippi, Michela Berti, Giacomo Lorenzini, Cristina Nali, Elisa Pellegrini, Pietro Calabrese *(University of Pisa)*; Antonio Luca Alfeo *(eCampus University)*; Mario Cimino, Lorenzo Cotrozzi *(University of Pisa)*

T2 CAD-centric Digital Manufacturing

Room C · 6 papers

15.30–15.50 ID 4
Plan-Once, Place-Anywhere: A CAD-Centric Framework for Adaptive Robotic Inspection
Vanessa Staderini, Ulugbek Alibekov, Huy-Hoang Nguyen, Tamas Magyar, Tobias Glück *(AIT Austrian Institute of Technology GmbH)*

15.50–16.10 ID 58
Integrating Large Language Models with CAD Systems to Support Design for Additive Manufacturing in CAD Workflows
Dawit Anteneh Mesfin, Omid Fatahi Valilai *(Constructor University Bremen)*

16.10–16.30 ID 71
Towards a Model-Based Definition Framework for Integrating Design, Manufacturing and Inspection Information in Additive Manufacturing
Konstantinos Rinos, Emmanouil Varitis *(University of Western Macedonia)*

Coffee break · 16.30–16.50

16.50–17.10 ID 85
Stakeholder Perspectives on the Manufacturing Digital Passport (MDP): An Empirical Study of Value, Complexity, and Adoption Challenges
Mohammed M Mabkhot *(Loughborough University)*; Amer Liaqat *(Airbus Operations Ltd)*; Faruk Ozdemir, Demetrios Joannou, Roy S. Kalawsky, Pedro Ferreira *(Loughborough University)*

17.10–17.30 ID 97
X-CAD for Digital Manufacturing: a casting simulation case study
Francesco Lupi, Alessio Pacini, Michele Lanzetta *(University of Pisa)*

17.30–17.50 ID 89
A Capability-Based Review of Standards and Industrial Specifications for Model-Based Definition
Edoardo Laciniati, Mattia Maltauro *(University of Padua)*; Alessio Pacini, Francesco Lupi, Michele Lanzetta *(University of Pisa)*; Roberto Meneghello, Gianmaria Concheri *(University of Padua)*

Thursday 12 November — continued

T15 Building & Urban Sustainability

Room D · 8 papers

9.30–9.50 ID 17	A GIS-Based Framework for the Digital Management and Enhancement of Alpine Rural Heritage: QGIS Implementation for North-Eastern Pre-Alpine Malghe	Eleonora Filira, Eros Baruzzo, Umberto Turrini, Livio Petriccione *(University of Padua)*
9.50–10.10 ID 24	VALUESAFE: Scalable Multi-source Digital Tools for Multi-Hazard Urban Risk and Loss Assessment	Neri Banti, Emanuele Del Monte, Alberto Ciavattone *(S2R)*; Claudia Masciulli, Carlo Esposito *(INTELLIGEARTH S.r.l.)*; Emanuela Valerio, Paolo Mazzanti *(NHAZCA S.r.l.)*
10.10–10.30 ID 38	Application Problems of the Methodology for Determining Exclusion Zone Boundaries During Crane Lifting Operations on Construction Sites in Lithuania	Paulius Gaučas, Andrius Gulbinas *(Vilniaus kolegija)*
10.30–10.50 ID 39	A Digital Workflow for Prospective LCA of Building Design Solutions	Giammarco Montalbano *(University of Pisa)*; Cecilia Ciacci, Mohamed El Hakimy, Frida Bazzocchi *(University of Florence)*; Giovanni Santi *(University of Pisa)*
Coffee break · 10.50–11.10		
11.10–11.30 ID 7	From Co-Design to Climate Performance: Integrating Digital Environmental Simulation and Participatory Planning for Sustainable Regeneration of Apennine Villages	Sara Matoti, Lisa Rovetta, Barbara Gherri *(University of Parma)*; Emanuele Mazzadi *(Independent Architect)*
11.30–11.50 ID 75	Data-Driven SWMM Calibration and Diagnostics as a Basis for Rainfall-Driven Urban Drainage Forecasting	Vadim Klimov, Dietmar Siegele, Julius Emig, Dominik Matt *(Fraunhofer Italia)*
11.50–12.10 ID 174	GeoAI-Driven Decision Support for Climate-Resilient Infrastructure Planning and Sustainable Urban Management in the UAE	Rabin Chakrabortty, Gowhar Meraj, Hosni Ghedira, Tarig Ali *(American University of Sharjah)*
12.10–12.30 ID 142	Correlation Between Urban Expansion and Surface Temperature for the Conservation of a Dry Forest in Guayaquil, Ecuador	Joao Córdova-Pazmiño, Emily Sánchez-Zambrano, Paúl Carrión-Mero *(ESPOL Polytechnic University)*; Edgar Berrezueta *(Geological and Mining Institute of Spain (CN IGME-CSIC))*; Fernando Morante-Carballo *(ESPOL Polytechnic University)*

Thursday 12 November — continued

T8 AEC Industry & AI

Room D · 6 papers

15.30–15.50	ID 5	How Artificial Intelligence can be considered an enabler of knowledge management in the construction sector: the case study of Edillio Tommaso Salgarelli, Fabio Floreani, Valerio Pesenti Campagnoni, Davide Pasanisi *(Consorzio Intellimech)*; Vittorio Paris *(University of Bergamo)*
15.50–16.10	ID 98	Characterising Transitional Digital Building Permit Configurations Using Process Mining Conformance Checking Kavita Raj *(University of Brescia)*; Mario G.C.A. Cimino *(University of Pisa)*; Sara Comai, Silvia Mastrolembo Ventura, Angelo L.C. Ciribini *(University of Brescia)*
16.10–16.30	ID 136	Understanding Machine Learning in Smart City Research Şule Taşlı Pektaş *(OSTIM Technical University)*
Coffee break · 16.30–16.50		
16.50–17.10	ID 16	Leveraging Semantic Decomposition for AI Training towards Automating Information Extraction from Regional Construction Price Lists Giorgia Marcellino, Marco Martinelli, Ornella Irrera, Gianmaria Silvello, Carlo Zanchetta *(University of Padua)*
17.10–17.30	ID 78	Toward Autonomous Construction Sites: A Multi-Agent AI Approach for Operation and Logistics Coordination Julius Emig, Orjola Braholli, Dietmar Siegele *(Fraunhofer Italia Research)*; Dominik T. Matt *(Fraunhofer Italia Research, Free University of Bozen-Bolzano)*
17.30–17.50	ID 147	COPE-Net: AI-Based Change Order Impact Prediction for Construction Cost and Schedule Management Deepika Dayalan *(Independent researcher)*

Friday 13 November

4 tracks · 29 papers · Rooms A–D

General Track

Room A · 8 papers

9.00–9.20	ID 69	**Toward an Agent-Based Cognitive Digital Twin Architecture for Static-to-Runtime Vulnerability Contextualization in 5G Hospital Network Slicing** Mario Lezoche *(Université de Lorraine)*; Andrea Bernardini, Raffaele Nicolussi, Francesco D'Alterio *(Fondazione Ugo Bordoni)*; Nicolò Termine *(Politecnico di Torino)*
9.20–9.40	ID 105	**A Machine Learning Pipeline with Consensus-Based Feature Selection to Predict ICU Admission using Intraoperative Signals** Gianluca Diana, Antonio Luca Alfeo *(eCampus University)*; Giovanni Granata, Ornella Piazza, Gennaro Galasso *(University of Salerno)*; Gloria Cosoli *(eCampus University)*
9.40–10.00	ID 109	**SFE-O: An Ontology for Knowledge-Grounded AI in Supercritical CO_2 Biomass Extraction and Fractionation** Thomas Pallet, Mario Lezoche *(Université de Lorraine)*; Daniele Pizzichini, Gianpaolo Leone *(ENEA)*; Diego Torres *(Universidad Nacional de La Plata)*; Hervé Panetto *(Université de Lorraine)*; Melanie Glibusic *(MG-IB)*
10.00–10.20	ID 140	**Quantifying Global Tourism Attractiveness: A Dual Econometric and Ensemble Learning Framework** Nando Verelst, Pablo Henríquez, Ramiro Saltos, Karina Isla *(Universidad Diego Portales)*
10.20–10.40	ID 171	**Socioeconomic, Educational, and Technological Factors Associated with Online Banking Use in Mexico, 2025** Juan Meza-Fregoso, Eduardo Ahumada-Tello *(Universidad Autónoma de Baja California)*; Consuelo Montaño-Andrade *(Universidad Autónoma de Nayarit)*
Coffee break · 10.40–11.00		
11.00–11.20	ID 36	**CEO Accountability Patterns and their Implications for ESG Reporting Systems in Biotechnology & Pharma: A Gendered Analysis** Stefania Roberta Miccoli, Nicoletta Maria Strollo, Tamara Menichini *(Niccolò Cusano University)*
11.20–11.40	ID 61	**Improving Forecast Accuracy for Event-Driven Sporadic Demand and Promotional Activities Using Large Language Models** Sami El Hyane, Mohammadreza Rezaei, Omid Fatahi Valilai *(Constructor University Bremen)*
11.40–12.00	ID 130	**UDC based freight last mile city logistics: a comprehensive study** Lorenzo Brocchini, Daniele Conte, Marino Lupi, Antonio Pratelli, Alessandro Farina *(University of Pisa)*

Friday 13 November — continued

T13 AI for Healthcare Management

Room B · 8 papers

9.00–9.20 ID 15

Cybersecurity awareness among healthcare employees

Davide Aloini, Elisabetta Benevento, Gianluca Dini *(University of Pisa)*; Jacopo Guercini *(Azienda Ospedaliera Universitaria Pisana)*; Alessandro Iala *(Azienda USL Toscana Nord Ovest)*; Martina Neri, Federico Niccolini *(University of Pisa)*; Matteo Orselli *(Azienda Ospedaliera Universitaria Pisana)*; Ettore Pieruccini, Alessandro Stefanini *(University of Pisa)*

9.20–9.40 ID 43

Healthcare procurement and AI-based decision support systems: organisational determinants of acceptability

Federica Asperti, Emanuela Foglia, Federico Filippo Orsini, Fernando Settimo *(LIUC – Carlo Cattaneo University)*; Alessandro Grasso *(University of Brescia)*; Elisa Rita D'Autilia, Marco Pantera *(ARIA SpA)*

9.40–10.00 ID 48

The Role of Nurse Subjectivity in Emergency Department Triage Decisions: Evidence from an Italian Hospital

Davide Aloini, Elisabetta Benevento, Riccardo Lucarini, Valeria Mininno *(University of Pisa)*

10.00–10.20 ID 79

Transcultural Adaptation as a Lever for Scaling Digital Therapeutics Across Healthcare Systems: The RICORDO-DTx Case

Federico Filippo Orsini, Elisabetta Garagiola, Federica Asperti, Fabrizio Schettini, Lucrezia Ferrario *(LIUC – Carlo Cattaneo University)*; Valeria Blasi, Chiara Pagliari, Chiara Mangione *(IRCCS Fondazione Don Carlo Gnocchi)*; Felice Catania, Stefania Occhipinti *(ASTIR S.r.l.)*; Valeria Manera, Vanessa Ourahmoune *(Université Côte d'Azur)*; Justine Lemaire, Antoine Boue *(Centre Hospitalier Universitaire de Nice)*; Liliana Ventura Mendes *(Coimbra Institute for Biomedical Imaging and Translational Research (CIBIT/ICNAS))*; Fabiana Gonçalves, Ana Raposo *(MUNDIS – Associação Cívica de Formação e Cultura)*; Emanuela Foglia *(LIUC – Carlo Cattaneo University)*

10.20–10.40 ID 86

Human-Centred AI in Healthcare Organizations: A Socio-Technical Review of AI Acceptability and Workforce Resilience

Federico Filippo Orsini, Emanuela Foglia *(LIUC – Carlo Cattaneo University)*; Mantas Vilkas *(Kaunas University of Technology)*

Coffee break · 10.40–11.00

11.00–11.20 ID 123

Bayesian Network Sensitivity Analysis of a Two-Feature Heart Failure Mortality Classifier

Khaled Toffaha, Ahmed Alaaeldin Saad, Michael A. Kortt *(Khalifa University)*; Samer Ellaham *(Cleveland Clinic Abu Dhabi)*

11.20–11.40 ID 135

Stress-Testing Telemedicine Evaluation Models Through Synthetic Stakeholder Agents

Lorella Cannavacciuolo, Roberta De Cristofaro, Cristina Ponsiglione *(University of Naples Federico II)*; Simonetta Primario *(Pegaso Telematic University)*

11.40–12.00 ID 163

Operational Cost Parameterization for Healthcare AI Decision Support

Ahmed Saad, Khaled Toffaha, Mecit Can Emre Simsekler *(Khalifa University)*; Siddiq Anwar *(King's College Hospital London)*

Friday 13 November — continued

T9 Mechanistic Interpretability

Room C · 5 papers

9.00–9.20 ID 192	Assessing the Alignment of Popular CNNs to the Brain for Valence Appraisal	Laurent Mertens, Elahe' Yargholi, Laura Van Hove, Hans Op de Beeck, Jan Van den Stock *(KU Leuven)*; Joost Vennekens *(Vrije Universiteit Brussel)*
9.20–9.40 ID 8	ConvXAI-GEN : A Modular LLM-Mediated XAI system with Faithfulness Constraints	Chiara Mezzanzanica, Navid Nobani *(University of Milano-Bicocca)*
9.40–10.00 ID 25	Explainable AI in Engineering Design: Investigating LLM Reasoning Through Synthetic Datasets	Michele Ragusa, Vito Giordano, Marco Losanno, Gualtiero Fantoni *(University of Pisa)*
10.00–10.20 ID 104	Counterfactual Explanations for Acute Kidney Injury Prediction After Cardiac Surgery: A Comparative Evaluation	Daniele Candelaresi, Gianluca Diana, Antonio Luca Alfeo *(eCampus University)*; Giovanni Granata, Ornella Piazza, Gennaro Galasso *(University of Salerno)*; Gloria Cosoli *(eCampus University)*
10.20–10.40 ID 22	Temporal Graph Modeling of Hospital Environments for Acquired Infections Monitoring	Francesca Fiani *(Sapienza University of Rome)*; Cristian Randieri *(eCampus University)*; Maria Grazia Bocci *(Lazzaro Spallanzani National Institute for Infectious Diseases)*; Christian Napoli *(Sapienza University of Rome)*

General Track

Room C · 3 papers

11.00–11.20 ID 175	Intelligent Mobile Mapping for Smart Infrastructure Management: Integrating Multi-Sensor Geospatial Data, Artificial Intelligence, and High-Precision Positioning	Tarig Ali, Hosni Ghedira, Gowhar Meraj, Rabin Chakrabortty *(American University of Sharjah)*
11.20–11.40 ID 181	Design and Evaluation of a Proxy-Based Covert Communication Framework Leveraging QUIC Web Traffic Dynamics	Ebtisam Almaazmi, Saddaf Rubab *(University of Sharjah)*; Kashif Javed *(National University of Technology)*
11.40–12.00 ID 185	Gender Norms as a Filter Between Awareness and Marketplace Support for Women Entrepreneurs in Latin America	Jessica Lopez-Garcia, Eduardo Ahumada-Tello, Juan Antonio Meza-Fregoso *(Autonomous University of Baja California)*; Iris Monserrat Urbina-Casas *(Monterrey Institute of Technology and Higher Education)*

Friday 13 November — continued

T10 Decentralized Energy Management

Room D · 5 papers

9.00–9.20	ID 29	A User-Centric, Privacy-Preserving Energy Management System for Renewable Energy Communities through MLOps and Federated Learning Marco Ruta, Gabriele Scivoletto, Gabriele Ferrigno, Giada Landi *(Nextworks)*; Razvan Mihai, Christian Catalin Petrache *(Orange Romania)*
9.20–9.40	ID 129	Comparing Renewable Energy Community Models: Italy vs. France Simone Gitto *(University of Siena)*; Daniela Pappadà *(University of Cagliari)*; Salvatore Sabatino *(University of Siena)*
9.40–10.00	ID 141	Optimal Sizing of Renewable Energy Communities via Differentiable Convex Optimization Tiberio Di Pisello *(Cassioli Group S.r.l.)*; Andrea Bellini, Simone Paoletti *(University of Siena)*
10.00–10.20	ID 173	A framework for EV Charging Coordination and Incentive Redistribution in Renewable Energy Communities Anum Zehra Naqvi, Marco Pranzo *(University of Siena)*
10.20–10.40	ID 203	From Self-Consumption Optimization to Bankability: A BESS Retrofit's Value Gap Leonardo Guiducci, Antonio Rizzo *(University of Siena)*