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WORKSHOP PROGRAM

Wednesday, June 11

Session 1.1 - BIM, building energy efficiency and remote sensing by UAV: an integrate approach for the development of innovative methodologies for the energy improvement of the built environment

Room: Alfa Building - Auditorium Mainardi

- 1 Innovative Energy Retrofit Methodologies for the Existing Building Stock: an Integrated Approach**
Marianna Rotilio, Alessandro Marucci, Pamela Maiezza, Maria Alicandro and Chiara Marchionni (University of L'Aquila, Italy); Maurizio Pollino (ENEA, Italy)
- 7 Building Envelope and Non-Destructive Techniques**
Marianna Rotilio and Chiara Marchionni (University of L'Aquila, Italy); Rossella Simonelli (Freelance, Italy)
- 13 UAV Photogrammetry and OBIA Classification for Decay Mapping in Built Heritage**
Maria Alicandro, Sara Zollini, Nicole Pascucci and Donatella Dominici (University of L'Aquila, Italy)
- 18 Adaptation to Climate Changes and Ecological Transition in Urban Contexts**
Chiara Di Dato, Lorena Fiorini and Alessandro Marucci (University of L'Aquila, Italy)
- 24 Documenting the Existing Building Through BIM: a Structured Information Management System for Facility Management and Energy Efficiency**
Pamela Maiezza (University of L'Aquila, Italy)
- 29 Integrated and Sustainable Urban Regeneration for Resilient University: a Case Study**
Eleonora Laurini and Chiara Marchionni (University of L'Aquila, Italy); Pierluigi De Berardinis (DICEAA)

Session 1.2 - Advanced Mathematical and mechanical models, experimental approaches and data analysis for Structural Health Monitoring (SHM) and Environmental Monitoring Systems - ENGINEERING

Room: Alfa Building - Conference Room Zanetto

- 34 Automated Mapping and Characterization of Asbestos Cement Roofs with AI Techniques in Areas with Different Degrees of Anthropization**
Antonietta Varasano (Polytechnic University of Bari, Italy); Aguinardo Fraddosio and Gregorio Andria (Politecnico di Bari, Italy); Carmen Fattore and Paola D'Antonio (University of Basilicata, Italy); Mario Daniele Piccioni (Politecnico di Bari, Italy)
- 39 Data Analysis for Structural Health Monitoring of a Steel Jacket Offshore Platform**
Giacomo Zini, Francesca Marafini and Ostilio Spadaccini (Università degli Studi di Firenze, Italy); Paolo Castelli (Energean Italy S.p.A., Italy); Michele Betti (Università degli Studi di Firenze, Italy)
- 44 Dynamic Identification of Milk Storage Tanks Under Different Filling Conditions**
Anna Castellano (Politecnico di Bari, Italy); Nataliia Pinchuk (Yuri Kondratyuk Poltava Polytechnic, Italy); Roberta Gattulli (Polytechnic University of Bari, Italy); Francesco Paparella, Mariella Diaferio and Aguinardo Fraddosio (Politecnico di Bari, Italy)
- 49 A Comprehensive Experimental Method for Damage Evaluation of Reinforced Masonry Vaulted Structures**
Anna Castellano and Aguinardo Fraddosio (Politecnico di Bari, Italy); Nataliia Pinchuk (Yuri Kondratyuk Poltava Polytechnic, Italy); Mario Daniele Piccioni (Politecnico di Bari, Italy)
- 54 Experimental Evaluation of the Impact Mechanics in the Rocking Dynamics of Rigid Blocks**
Gianfranco Martellotta (University of Naples Federico II, Italy); Anna Castellano, Aguinardo Fraddosio and Mario Daniele Piccioni (Polytechnic University of Bari, Italy)
- 59 Cost-Effective Vibration Monitoring for Anomaly Detection and Localization in Existing Structures**
Gianluca Standoli, Francesca Bianconi, Mattia Schiavoni and Martina Di Giosaffatte (Università Politecnica delle Marche, Italy); Francesca Roscini (Niccolò Cusano University, Italy); Francesco Clementi (Università Politecnica Delle Marche, Italy)

Session 1.3 - Energy Systems in the Built Environment. Assessing energy Performance in Buildings and Renewable Systems

Room: Epsilon Building - Room 1

- 65 **Lumped Parameter Dynamic Thermal Model of a Building Integrated with a PID-Controlled HVAC System for Maintaining Indoor Comfort Under Variable Thermal Load**
Francesco Nicoletti, Antonio Cristaudo, Vittorio Ferraro, Dimitrios Kaliakatsos, Piero Bevilacqua, Natale Arcuri and Giovanni Miracco (University of Calabria, Italy)
- 71 **A Decarbonisation-as-a-Service Framework for Optimizing Renovations in the Building Sector**
Symeon Chorozoglou (National Technical University of Athens, Greece); Alexis Lekidis (National Technical University of Athens, Greece & University of Thessaly, Greece); Elissaios Sarmas (EPU-NTUA, Greece)
- 77 **U-Value Measurement in Buildings. is It an Accurate Estimate?**
Piero Bevilacqua, Natale Arcuri, Francesco Nicoletti, Daniela Cirone and Giovanni Miracco (University of Calabria, Italy)
- 83 **Assessing Air Infiltration in Office Buildings Using the Blower Door Test**
Daniela Cirone, Piero Bevilacqua, Roberto Bruno, Natale Arcuri (University of Calabria, Italy)
- 89 **Enhanced Building Electric Power Demand Forecasting Using IoT and Machine Learning**
Thomas Bapaume, Negin Alisoltani, Elyes Nefzaoui, Latifa Oukhellou (Univiversité Gustave Eiffel, France)

Session 2.1 - Progress and innovations in mitigating natural and human-induced risks for the preservation of masonry and cultural heritage structures - PART I

Room: Alfa Building - Auditorium Mainardi

- 95 **Innovative Air Cleaning System for Healthy Indoor Environments: Characterization of a Novel System Combining MCM-41 Mesoporous Silica and Essential Oils**
Anna Laura Tassi and Vittoria Guglielmi (Università Degli Studi di Milano, Italy); Laura Santagostini and Alessia Santiglia (Dipartimento di Chimica, University of Milan, Italy)
- 100 **Damping Analysis and Ongoing Kinetic Effects at the Castello Ursino Museum (Italy)**
Claudia Pirrotta, Carlo Trigona, Anna M Gueli, Barbara Mancuso, Valter Pinto and Sebastiano Imposa (University of Catania, Italy)
- 105 **Seismic Vulnerability Assessment and Structural Analysis of the Church of Santa Maria di Piazza (Ostra Vetere, Italy)**
Francesco Monni and Francesco Clementi (Università Politecnica Delle Marche, Italy)
- 110 **Decoding the Dynamic Behavior of Twin Church Bell Towers Through Ambient Vibration Analysis**
Gianluca Standoli, Francesca Bianconi and Mattia Schiavoni, Martina Di Giosaffatte and Francesco Monni (Università Politecnica Delle Marche, Italy); Francesca Roscini (Niccolò Cusano University, Italy); Francesco Clementi (Università Politecnica Delle Marche, Italy)

Session 2.2 - Modernization of technologies and practices towards cities carbon neutrality - U-CAN Project

Room: Alfa Building - Conference Room Zanetto

- 115 **The Promotion of the Carbon Neutrality of Ukrainian Cities Through Participatory Processes**
Danilo Di Donato, Marianna Rotilio and Alessandra Tosone (University of L'Aquila, Italy)
- 121 **Cities Transition Towards Carbon Neutrality: a Review**
Chiara Marchionni and Marianna Rotilio (University of L'Aquila, Italy)
- 127 **Current Decarbonization Technologies in Ukrainian Cities in the Energy Production and Consumption Sector Using Solar Energy**
Yevhen Terekhov (Joanneum Research Forschungsgesellschaft mbH, Austria)
- 133 **Fostering Climate Neutrality: the Role of the U CAN Project in Sustainable Planning of Ukrainian Territories**
Alessandro Marucci and Federico Falasca (University of L'Aquila, Italy)

- 138 **Sustainable Regeneration of Urban Centers: Strategic Guidelines of Intervention**
Alessia Massari and Chiara Marchionni (University of L'Aquila, Italy)
- 144 **End-of-Life of Photovoltaic Used as Building Material: from Waste to Resource**
Letizia Giusti, Marianna Rotilio and Gianni Di Giovanni (University of L'Aquila, Italy); Pierluigi Bonomo and Leidy Guante Henriquez (University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland)
-

Session 2.3 - New non-intrusive IoT paradigms based on unconventional AI approaches for and by measurement systems and methods

Room: Epsilon Building - Room 1

- 149 **Improved Design of a Low-Cost, Mobile and Modular Air Pollution Monitoring System**
Rocío A Guerrón, Domenico Luca Carnì, Marco Lanuzza, Francesco Lamonaca and Ramiro Taco (University of Calabria, Italy)
- 155 **Smart Telemedicine: Leveraging IoT to Transform Remote Healthcare Monitoring and Access**
Fabio Arena, Giovanni Pau, Valerio Mario Salerno, Marianna Ruggieri, Angela Ricciardello, Carmelo Scuro and Mario Collotta (Kore University of Enna, Italy)
- 161 **Dynamic Structural Identification Using an Embedded System with MEMS Sensors Mounted on a Moving Vehicle**
Giorgio de Alteriis, Giulio Mariniello, Lorenzo Coppola, Antonio Bilotta, Domenico Asprone and Rosario Schiano Lo Moriello (University of Naples Federico II, Italy)
-

Session 3.1 - Virtual and Extended Environment: A possible future for STEM Didactical Living Environment

Room: Alfa Building - Auditorium Mainardi

- 167 **An MQTT-Based Interface for Remote Control of GPIB Instruments: Ensuring User Experience in Augmented Reality and Metaverse Laboratories**
Annalisa Liccardo (University of Naples Federico II, Italy); Francesco Lamonaca (University of Calabria, Italy); Francesco Bonavolontà (Università di Napoli Federico II, Italy)
- 172 **Digital Twins of Historical Psychotechnical Instruments: IoT-Driven Measurements for Medical Diagnostics, Research, and Education**
Maria Sinatra (Istitute of Design Matera, Italy); Lucia Monacis (University of Foggia, Italy); Francesca Bertacchini, Francesco Demarco, Francesco Lamonaca, Eleonora Bilotta and Pietro Pantano (University of Calabria, Italy)
-

Thursday, June 12

Session 4.1 - Measurement systems and strategies for the assessment of personalized comfort in the built environment: towards human-centric and resilient building management solutions

Room: Alfa Building - Auditorium Mainardi

- 178 **Development and Outdoor Testing Based on Monitoring Data and Finite Volume Models of Cool Asphalt Prototypes in HE MULTICLIMACT**
Diego Zamora-Sánchez and Beñat Arregi (TECNALIA, Basque Research and Technology Alliance (BRTA), Spain); Mireia Fernandez (COMSA SA, Spain); Alberto Armijo, Iñigo Lopez-Villamor and Jorge Torres (TECNALIA, Basque Research and Technology Alliance (BRTA), Spain)

- 183 **Experimental Analysis on the Effect of Contact Pressure, Activity Level, and Skin Tone as Influencing Factors in PPG Sensors Performance**
Francesco Scardulla (University of Palermo, Italy); Gloria Cosoli (Università eCampus, Italy); Luca Antognoli (Università Politecnica Delle Marche, Italy); Gianluca Diana and Francesco Bongiorno (University of Palermo, Italy); Lorenzo Scalise (Università Politecnica delle Marche, Italy); Marco Arnesano (Università eCampus, Italy); Leonardo D'Acquisto (University of Palermo, Italy)
- 188 **Experimental Campaigns for the Assessment of Indoor Personalized Comfort Based on a Multidomain Platform**
Gloria Cosoli (Università eCampus, Italy); Ilaria Ciuffreda (UNIVPM, Italy); Dianel Ago (Callisia & eCampus University, Italy); Ilaria Pigliautile (eCampus University, Italy); Puneet Tomar (EAPLAB at CIRIAF, University of Perugia, Italy); Veronica Martins Gnecco (Università Degli Studi di Perugia, Italy); Agnese Chiucchiù (EAPLAB at CIRIAF, University of Perugia, Italy); Anna Laura Pisello (Università degli Studi di Perugia, Italy); Sara Casaccia and Gian Marco Revel (Università Politecnica delle Marche, Italy); Marco Arnesano (Università eCampus, Italy)
- 194 **Enhancing the Built Environment Resilience: Integrating the MULTICLIMACT CREMA Tool, Sensing and Digital Solutions for Building Protection and Occupants' Well-Being Assessment**
Florencia Victoria De Maio, Celina Solari, Cristina Attanasio and Clemente Fuggini (RINA-C, Italy); Gloria Cosoli (Università eCampus, Italy); Rifat Seferi (LIS Live Information System, Italy); Gian Marco Revel (Università Politecnica delle Marche, Italy)
- 199 **Development of a BIM-Based Platform for the Assessment of Indoor Multidomain Comfort**
Gloria Cosoli (Università eCampus, Italy); Rifat Seferi (LIS Live Information System, Italy); Ilaria Ciuffreda (Università Politecnica delle Marche, Italy); Orazio Colaneri (Live Information System, Italy); Rania Christoforou (Medical Faculty, RWTH Aachen University, Germany); Mina Moayyedi and Marcel Schweiker (RWTH Aachen University, Germany); Marco Arnesano (Università eCampus, Italy); Gian Marco Revel (Università Politecnica delle Marche, Italy)
- 204 **Measurement of Office Activities Using Non-Contact Ultrasonic Sensors and Accelerometer: Accuracy Comparison and Optimal Use Cases**
Ilaria Ciuffreda, Gianluca Sartini and Sara Casaccia (Università Politecnica delle Marche, Italy); Gloria Cosoli and Marco Arnesano (Università eCampus, Italy); Gian Marco Revel (Università Politecnica delle Marche, Italy)

Session 4.2 - Innovative Measurement Methods and Systems for Robotics in Living Environments

Room: Alfa Building - Conference Room Zanetto

- 209 **Advanced Matching Algorithms in Multi-Agent Systems for Industry 5.0**
Luigi D'Alfonso and Giuseppe Fedele (University of Calabria, Italy)
- 214 **Advances in Measurement Methods and Techniques for Positioning of Anthropomorphic Robots: a Review**
Domenico Luca Carnì (University of Calabria, Italy); Luigi Longo (Robinia Srls, Italy); Francesco Lamonaca (University of Calabria, Italy)
- 220 **Decentralized Coordination in Robotic Swarms: an Adaptive Strategy for Shared Resource Management**
Giuseppe Fedele and Luigi D'Alfonso (University of Calabria, Italy)
- 225 **IoT-Driven Healthcare Monitoring with Edge Device: Enhancing Sustainability, and Efficiency**
Giuseppe Agapito (University of Catanzaro, Italy)
- 230 **Social Value Orientation and Steady-State Configurations in Swarms with Coordinate-Coupling Matrices**
Alp Merzi (Universita Della Calabria (Hiring in process), Turkey); Veysel Gazi (Yildiz Technical University, Turkey)

Session 4.3 - Progress and innovations in mitigating natural and human-induced risks for the preservation of masonry and cultural heritage structures - PART II

Room: Epsilon Building - Room 1

- 236 **Evaluating the Use of NORM Residues in Building Restoration: a Risk Assessment Approach Using ERICA and NORMALYSA**
Chiara Imparato (University of Campania Luigi Vanvitelli, Italy); Fabrizio Ambrosino (University of Naples Federico II, Italy); Giuseppe La Verde (UNINA, Italy); Carlo Sabbarese (University of Campania Luigi Vanvitelli, Italy); Marina Poje Sovilj (University Josip Juraj Strossmayer of Osijek, Croatia); Mariagabriella Pugliese (University of Naples Federico II, Italy)
- 241 **A Novel Numerical Protocol to Assess Possible Strengthening Interventions on Already Damaged Curved Masonry Structures**
Natalia Pingaro, Martina Buzzetti and Gabriele Milani (Politecnico di Milano, Italy)
- 247 **FE Upper Bound Limit Analysis for Automatic Detection of Collapse Mechanisms in Masonry Buildings**
Martina Buzzetti, Natalia Pingaro and Gabriele Milani (Politecnico di Milano, Italy)
- 253 **Conformity Assessment of a Multi-Sensor Device for Indoor Environmental Quality Monitoring**
Virginia Isabella Fissore, Davide Sgro, Reyhaneh Khosravi, Manuela Baracani, Alberto Barbaro, Pietro Chiavassa, Marina Clerico, Stefano Fantucci, Fabio Favoino, Franco Fiori, Davide Gallione, Alice Lorenzati, Nicole Mastromatteo, Bartolomeo Montrucchio, Giuseppina Emma Puglisi, Erica Raviola, Gabriele Piccablotto, Anna Pellegrino, Antonio Servetti, Louena Shtrepi, Alessio Carullo, Arianna Astolfi (Politecnico di Torino, Italy)
-

Session 5.1 - General Session

Room: Alfa Building - Auditorium Mainardi

- 259 **A LoRa-Based Energy-Harvesting Sensing System for Living Environment**
Aitian Ma, Jean Tondoy Rodriguez and Mo Sha (Florida International University, USA)
- 265 **An Approach to the Design of Telemetry Applications in Future Railway Communications**
Dragomira Dimitrova (Todor Kableshkov University of Transport, Bulgaria); Ivaylo Atanasov (Technical University of Sofia, Bulgaria); Evelina Pencheva (Todor Kableshkov University of Transport, Bulgaria)
- 271 **Reconstructing Agricultural Environments: Smart Farm Development Through Metrology, AI and Remote Sensing**
Marco Gagliardi (University of Calabria and NANOTEC National Research Council, Italy); Francesco Lamonaca (University of Calabria, Italy); Danilo Maurmo (University of Calabria and CNR-Nanotec, Italy); Tommaso Ruga (University of Calabria, Italy); Eugenio Vocaturo (CNR- Nanotec, Italy & University of Calabria, Italy); Ester Zumpano (University of Calabria, Italy)
- 277 **Safe IoT-Based Cultivation of *Trametes Versicolor***
Higor V Rosse (Collaborative Laboratory Mountains of Research, Portugal); Carla Pereira, Ana Saldanha and Maria Inês Dias (Instituto Politécnico de Bragança, Campus de Sta Apolónia, Portugal); Elisabete Freitas (Collaborative Laboratory Montains of Research, Portugal); Estefânia Gonçalves (Collaborative Laboratory Mountains of Research, Portugal)
- 283 **MQTT Anomalous Behavior Detection in IP Sensor Networks Through Convolutional Neural Networks and Traffic to Image Encoding**
Antonio Francesco Gentile (ICAR-CNR, Italy); Peppino Fazio (University Ca' Foscari of Venice - DSMN, Italy); Davide Macrì (ICAR CNR, Italy); Emilio Greco (ICAR-CNR, Italy); Miroslav Voznak (VSB - Technical University of Ostrava, Czech Republic)
-

Session 6.1 - Application of Digital Services in the Built Environment: Empowering Innovation through High-Quality Data-Driven Measurement Processes to enhance Demand Response strategies - PART I

Room: Alfa Building - Auditorium Mainardi

- 289 **Optimizing Appliances Usage for Apartment Buildings Participation in Demand Response Programs**
Cristina Pop, Zoltan Varga, Viorica Chifu, Tudor Cioara and Ionut Anghel (Technical University of Cluj-Napoca, Romania)

- 295 **Integrating Predictive Power Market Modelling with Automated Demand-Side Management of Residential Heat Pumps**
Dimitris Bibikas, Thanos Ntrachas, George Sidoras, Christos Roumkos and Ilias Marnaris (Zenith Gas & Light SA, Greece); Alexis Lekidis (National Technical University of Athens, Greece & University of Thessaly, Greece); Vangelis Marinakis (National Technical University of Athens, Greece); Athanasios Gousios (Zenith Gas & Light SA, Greece)
- 301 **Cloud-Edge Continuum Orchestration for Containerized Workloads**
Vasile Ofrim, Costel Benjamin Frandes, Tudor Cioara and Ionut Anghel (Technical University of Cluj-Napoca, Romania)
- 306 **Decentralized IoT Data Marketplaces: Enabling Peer-to-Peer Exchange with Edge Computing**
Filippos Serepas (Holistic sa, Greece); Ioannis Papias, Konstantinos Christakis and Nikos Dimitropoulos (NTUA, Greece); Vangelis Marinakis (National Technical University of Athens, Greece)
- 312 **User-Centric Comfort Measurement and Energy Optimization: a Pareto-Efficient Approach for a Personalized Recommendation Strategy**
Vittoria Cipollone, Serena Serroni, Nicole Morresi, Sara Casaccia and Fabrizio Marinelli (Università Politecnica delle Marche, Italy); Petteri Rekomaa (Data Team, Finland); Diego Arnone (Engineering SPA, Italy); Gian Marco Revel (Università Politecnica delle Marche, Italy)

Session 6.2 - Advanced Mathematical and mechanical models, experimental approaches and data analysis for Structural Health Monitoring (SHM) and Environmental Monitoring Systems - MATHEMATICS - PART I

Room: Alfa Building - Conference Room Zanetto

- 317 **A Novel Method for Fuel Maps in Urban-Rural Interface Zones**
Giuseppe Ali, Francesco Demarco, Pierpaolo Antonio Fusaro, Salvatore Nisticò and Pietro Pantano (University of Calabria, Italy)
- 322 **Solving PDEs in Monitoring Systems Using Neural Networks**
Riccardo Scida and Giovanni Mascali (University of Calabria, Italy); Carmelo Scuro (Kore University of Enna, Italy); Pietro Pantano (University of Calabria, Italy)
- 328 **Detailed FEM Micro-Modeling for Masonry Building: a Case Study**
Federico De Francesca, Francesco Demarco and Pierpaolo Antonio Fusaro (University of Calabria, Italy); Carmelo Scuro (Kore University of Enna, Italy)
- 333 **Geospatial Methods in Fire Hazard Assessment**
Pierpaolo Antonio Fusaro, Pietro Pantano and Giuseppe Ali (University of Calabria, Italy); Raffaele Mangiardi (Regione Calabria, Italy)
- 339 **Federated Learning and Network Slicing-Based Resource Optimization for Secure Healthcare Communications**
Ayushi Shah, Keertan Amit Parikh and Nikunj Kumar Mahida (Nirma University, India); Ancy Patel (Indus Institute of Technology, Engineering Indus University, India); Rajesh Gupta (Nirma University, India); Sudeep Tanwar (Nirma University & Institute of Technology, India); Giovanni Pau, Mario Collotta, Valerio Mario Salerno and Fabio Arena (Kore University of Enna, Italy)

Session 6.3 - Sensors, Instrumentation, and Innovative Technologies to Improve People Wellbeing in the Built Environment: The Contribution of the Innovation Ecosystem Vitality - PART I

Room: Epsilon Building - Room 1

- 345 **Ladder Walking Detection via Action Recognition for Enhancing Worker Safety in Construction**
Eftichia Badeka (Centre for Research and Technology Hellas, Greece & CERTH, Greece); Agata Muchla (Mostostal Warszawa SA, Poland); Ilias Koulalis and Konstantinos Ioannidis (Information Technologies Institute-CERTH, Greece); Piotr Dymarski (Mostostal Warszawa S.A., Poland); Stefanos Vrochidis (Information Technologies Institute (ITI), Greece)

- 350 **A First Evaluation of the Audio Augmented Reality Seamless Navigation Assistant Based on Computer Vision for Blind and Visually Impaired People**
Leonardo Messi, Massimo Vaccarini, Francesco Spegni, Rocco Davide D'aparo and Leonardo Binni (Università Politecnica Delle Marche, Italy)
- 356 **Intelligent Coordination System for Autonomous Domestic Heating: an AI-Driven Test-Bench**
Alberto Petrucci, Daniele Masti, Kiran Prestia and Francesco Basciani (Gran Sasso Science Institute, Italy)
- 362 **Interactive Wayfinding Systems in Emergency and Evacuation Conditions: Design of an Integrated Building Component and CAVE-Based Assessment**
Francesco Monni, Marco D'Orazio, Gabriele Bernardini and Luigi Chierico (Università Politecnica delle Marche, Italy); Ruggero Lovreglio (Massey University, New Zealand); Enrico Quagliarini (Università Politecnica delle Marche, Italy)

Session 7.1 - Application of Digital Services in the Built Environment: Empowering Innovation through High-Quality Data-Driven Measurement Processes to enhance Demand Response strategies - PART II

Room: Alfa Building - Auditorium Mainardi

- 367 **Optimizing Electricity Sharing from Generation and Storage Within District-Based Renewable Energy Communities**
Marc Girona-Badia (Centre Internacional de Mètodes Numèrics en Enginyeria (CIMNE), Spain); Jaume Asensio and Pablo A Moreno (Technical University of Catalunya, Spain); Gerard Laguna (Centre Internacional de Mètodes Numèrics en Enginyeria (CIMNE), Spain); Jordi Cipriano (CIMNE, Spain); Alvaro Luna (Technical University of Catalonia, Spain)
- 373 **Digital and Maintenance Revolution: Digital Twin and AI the Future of Construction**
Enrico Pasquale Zitiello (università federico II di Napoli, Italy); Francesca Porcellini (Università Federico II di Napoli, Italy); Antonio Salzano (Università Federico II di Napoli, Italy); Maurizio Nicoletta (Università federico II di Napoli, Italy)
- 378 **How Naples is Redesigning Urban Life Through Analytics to Improve the Comfort and Well-Being of Citizens**
Francesca D'Agresti (Engineering Ingegneria Informatica SpA, Italy); Francesca Pignataro (Comune di Napoli, Italy); Antonio Filograna (Engineering Ingegneria Informatica S.p.A., Italy); Rosaria Daniela Scattarella (Engineering Ingegneria Informatica, Italy); Giovanni Giacco (Latitudo 40, Italy)
- 384 **Denoising Autoencoder for Appliance-Specific Energy Disaggregation in Residential Settings**
Ioannis Papias and Loukas Papapetrou (NTUA, Greece); Vasilis Michalakopoulos (National Technical University of Athens, Greece); Elissaios Sarmas (EPU-NTUA, Greece); Vangelis Marinakis (National Technical University of Athens, Greece); Zoi Mylona and Costas Baslis (HERON Energy SA, Greece)
- 390 **Demand Response Scheduling for Residential Energy Flexibility: a Day-Ahead Renewable-Driven Approach**
Zoi Mylona (HERON Energy SA, Greece); Athanasios Papakonstantinou (HERON Energy S.A., Greece); Dimitrios Chatzigiannis and Marion Paraschi (HERON Energy SA, Greece); Vasilis Michalakopoulos (National Technical University of Athens, Greece); Elissaios Sarmas (EPU-NTUA, Greece)
- 396 **Toward a Human-Centric Demand Response Framework: Optimizing Energy Efficiency and Comfort for Aging People in the Built Environment**
Richard Kaculi, Vittoria Cipollone, Nibras Abo Alzahab, Serena Serroni and Sara Casaccia (Università Politecnica delle Marche, Italy); Silvia Palma (Istituto per Servizi di Ricovero e Assistenza agli Anziani, Italy); Diego Arnone (Engineering SPA, Italy); Gian Marco Revel (Università Politecnica delle Marche, Italy)

Session 7.2 - Advanced Mathematical and mechanical models, experimental approaches and data analysis for Structural Health Monitoring (SHM) and Environmental Monitoring Systems - MATHEMATICS - PART II

Room: Alfa Building - Conference Room Zanetto

- 402 **Deep Learning-Based 5G Network Slice Allocation Framework for Telesurgery Systems**
Jetani Harshil, Mili Virani, Drashti Kansara, Lakshit Pathak and Rajesh Gupta (Nirma University, India); Sudeep Tanwar (Nirma University & Institute of Technology, India); Giovanni Pau, Mario Collotta, Valerio Mario Salerno and Fabio Arena (Kore University of Enna, Italy)
- 408 **Leveraging Data Science and Artificial Intelligence for Enhanced Monitoring Systems**
Fabio Arena, Mario Collotta and Giovanni Pau (Kore University of Enna, Italy); Angela Ricciardello and Marianna Ruggieri (University of Enna Kore, Italy); Valerio Mario Salerno and Carmelo Scuro (Kore University of Enna, Italy)
- 414 **Optimized Model for Water Monitoring System**
Marianna Ruggieri (University of Enna Kore, Italy); Fabio Arena, Mario Collotta and Giovanni Pau (Kore University of Enna, Italy); Angela Ricciardello (University of Enna Kore, Italy); Valerio Mario Salerno and Carmelo Scuro (Kore University of Enna, Italy)
- 420 **Mathematical Model for Identifying and Locating External Solid Contaminants in Tanks**
Giuseppe Alì (University of Calabria, Italy); Angela Ricciardello and Marianna Ruggieri (University of Enna Kore, Italy); Carmelo Scuro (Kore University of Enna, Italy)
- 426 **Predictive Maintenance for Water Supply Networks: Advanced Expert System Models for Enhanced Water Resource Management and Monitoring**
Yuri Amorelli (UKE - Università di Enna - Kore, Italy); Francesco Gaetano Termine (UKE - Università degli studi di Enna - Kore, Italy); Giovanni Pau, Fabio Arena, Valerio Mario Salerno and Mario Collotta (Kore University of Enna, Italy)

Session 7.3 - Sensors, Instrumentation, and Innovative Technologies to Improve People Wellbeing in the Built Environment: The Contribution of the Innovation Ecosystem Vitality - PART II

Room: Epsilon Building - Room 1

- 431 **Development of an Experimental Set-Up for Evaluating the Performance of Carbon Dioxide Sensors in a Controlled Environment**
Gianluca Sartini, Nicole Morresi, Sara Casaccia and Gian Marco Revel (Università Politecnica delle Marche, Italy)
- 437 **Immersive Acoustic Stimulation for Remote Assisted Living: Feedback from Skin Conductance**
Stefania Cecchi, Valeria Bruschi, Alessandro Terenzi, Leonardo Isidori, Grazia Iadarola and Susanna Spinsante (Università Politecnica Delle Marche, Italy)
- 443 **Throughput of Myopic Policy in Energy Harvesting Sensor Network for Environmental Monitoring**
Omer M Gul (Istanbul Technical University, Turkey)
- 449 **Exploring the Feasibility of AI-Enhanced Biophilic Design for Educational Spaces: a Preliminary Study**
Haixia Liu (University of the West of England, United Kingdom (Great Britain))

Friday, June 13

Session 8.1 - Metrology for Climate Resilient Living Environments

Room: Alfa Building - Auditorium Mainardi

- 455 **An Extended Reality-Based Framework for User Risk Training in Urban Built Environment**
Sotirios Konstantakos (MOBICS, Greece); Sotirios Aspragkathos (SingularLogic SA, Greece); Moatasim Mahmoud (Aristotle University of Thessaloniki, Greece & Singular Logic, Greece); Stamatia Rizou (Singular Logic, Greece); Eugenio Quagliarini and Gabriele Bernardini (Università Politecnica delle Marche, Italy)

- 461 **Integrating Socio-Economic Dimensions into Climate-Resilience Assessment of Building Stock: a Case on Marginalized Groups in Athens**
Iason C. Dimitriou, Apostolos Arsenopoulos and Alexandros Xenakis (National Technical University of Athens, Greece); Panos Kouloukakis (NTUA, Greece); Vangelis Marinakis (National Technical University of Athens, Greece)
- 467 **Developing a Climate Vulnerability Index for High-Density Urban Areas: Innovative Data-Driven Solutions for Barcelona**
Maria Teresa Sellart Garcia and Jose Manuel Broto (Centre Internacional de Mètodes Numèrics en Enginyeria, Spain); Gerard Mor (CIMNE, Spain); Andreu Marí Bernaus and Jordi Cipriano (Centre Internacional de Mètodes Numèrics en Enginyeria, Spain)
- 473 **From Flood Risk Assessment to Blue-Green Infrastructure Evaluation in Urban Built Environments: a Holistic Workflow Definition**
Petra Pergar (Faculty of Civil and Geodetic Engineering, University of Ljubljana); Nataša Sirnik and Kristina Klemen (IMZI, Slovenia); Tijl Maes (Nazka Mapps, Belgium); Gabriele Bernardini and Eugenio Quagliariini (Università Politecnica delle Marche, Italy)
- 479 **A Data-Driven Decision Support System for Urban Heat Resilience: Comfort Optimization During Extreme Events**
Serena Serroni, Vittoria Cipollone and Gian Marco Revel (Università Politecnica delle Marche, Italy); Gerard Mor (CIMNE, Spain); Carla Rodriguez Alonso (Centro Tecnológico CARTIF, Italy); Clemente Fuggini and Dena Farhang (RINA Consulting S.p.A., Italy)

Session 8.2 - Measurement of Well-Being and Comfort for Aging Populations: How Technology Can Foster Age-Friendly Environments

Room: Alfa Building - Conference Room Zanetto

- 485 **RGBD Indoor Localization with YOLO Pose Estimation During Activity**
Antonio Nocera, Maria Gardano, Michela Raimondi and Gianluca Ciattaglia (Università Politecnica delle Marche, Italy); Linda Senigaglia (ETIS UMR 8051, CYU, ENSEA, CNRS, France); Ennio Gambi (Università Politecnica Delle Marche, Italy)
- 490 **Edge AI for Object Recognition in Digital Twins: Enhancing Indoor Navigation and BIM Systems for Living Environments**
Karameldeen Ibrahim Mohamed Omer (Politecnica Delle Marche, Italy & University of Khartoum, Sudan); Andrea Monteriù (Università Politecnica Delle Marche, Italy)
- 495 **Wearable System for Elderly People Monitoring in Multi-Resident Scenario**
Graziella Scandurra, Marica Amadeo, Filippo Battaglia, Giuseppe Campobello, Riccardo Caponetto and Carmine Ciofi (University of Messina, Italy)
- 500 **Development of a Sensor-Based Ecosystem for Measuring Comfort and Activities in a Multi-Resident Context: the Age-SenseAI Project**
Sara Casaccia, Iaria Ciuffreda and Sara Meletani (Università Politecnica Delle Marche, Italy); Riccardo Caponetto (University of Messina, Italy); Andrea Monteriù, Ennio Gambi, Laura Burattini, Luca Marinelli and Gian Marco Revel (Università Politecnica delle Marche, Italy)
- 505 **Safety and Well-Being Monitoring System for Multi Residential Scenarios**
Mariarosario Prist, Lorenzo Longarini and Andrea Bonci (Università Politecnica delle Marche, Italy); Roberto Frusciantè (San Marino Hospital, San Marino); Alessandro Freddi, Gian Marco Revel and Sara Casaccia and Andrea Monteriù (Università Politecnica delle Marche, Italy)

Session 8.3 - Probability, Biostatistics, Machine Learning and Metrology for Healthcare Living Environments

Room: Epsilon Building - Room 1

- 510 **New Methodology for the Identification of Nitrate Contamination from Agricultural Sources**
Angelantonio Calabrese (National Research Council, Italy); Mariavirginia Campanale (Minds Institute srl, Italy)

- 515 **Denoising Probabilistic Diffusion Models, ResNet, and Class Activation Maps for Healthcare Imaging**
Annamaria Defilippo (Magna Graecia University of Catanzaro, Italy & University of Cambridge, United Kingdom (Great Britain)); Cristian Cosentino (University of Calabria, Italy); Antonella Iuliano (University of Basilicata, Italy); Pietro Hiram Guzzi (University of Catanzaro, Italy); Pietro Lio (University of Cambridge, United Kingdom (Great Britain))
- 521 **Fractional Advection-Diffusion Equation for Water Distribution Systems**
Angela Ricciardello and Marianna Ruggieri (University of Enna Kore, Italy)
- 526 **Transformative Role of Machine Learning in Precision Medicine for Enhanced Healthcare Environments**
Fabio Arena, Mario Collotta and Giovanni Pau (Kore University of Enna, Italy); Angela Ricciardello and Marianna Ruggieri (University of Enna Kore, Italy); Valerio Mario Salerno and Carmelo Scuro (Kore University of Enna, Italy)