

1. Record Nr.	UNINA9910878054703321
Autore	Gervasi Osvaldo
Titolo	Computational Science and Its Applications - ICCSA 2024 Workshops : Hanoi, Vietnam, July 1-4, 2024, Proceedings, Part XI
Pubbl/distr/stampa	Cham : , : Springer, , 2024 ©2024
ISBN	3-031-65343-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (456 pages)
Collana	Lecture Notes in Computer Science Series ; ; v.14825
Altri autori (Persone)	MurganteBeniamino GarauChiara TaniarDavid C. RochaAna Maria A Faginas LagoMaria Noelia
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Welcome Message from Organizers -- Organization -- Plenary Lectures -- Harnessing Artificial Intelligence for Enhanced Spatial Analysis of Natural Hazard Assessments -- Software Engineering Research in a New Situation -- Interpretability and Privacy Preservation in Large Language Models (LLMs) -- Contents - Part XI -- Urban Space Accessibility and Mobilities (USAM 2024) -- Criteria to Identify Streets to Be Pedestrianised Near Major Commercial Attractors: The Case Study of the San Benedetto Market in Cagliari (Italy) -- 1 Introduction -- 2 State of Art on Pedestrianisation -- 3 Case Study and Selection of Applied Criteria -- 3.1 San Benedetto Market in Cagliari -- 4 Results -- 5 Discussion -- 6 Conclusions -- References -- Leveraging e-Surveys for Investigating Sustainable Urban Mobility: A Case Study in Small Community -- 1 Introduction -- 2 Methodology -- 3 Case Study -- 3.1 Survey's Layout -- 3.2 Survey's Validity Check and Error Correction -- 3.3 Data Analysis -- 4 Conclusions -- References -- Fostering Urban Soft Mobility by Means of Pedestrian Areas: Tentative Criteria for Evaluation of Impacts on Traffic -- 1 Introduction -- 2 Description of the Methodology -- 2.1 General

Framework -- 2.2 Travel Demand Model -- 2.3 Combination of Basic Solutions to Find a More Complex Design Solution -- 2.4 Time-Saving Assessment -- 3 Case Study -- 3.1 Description of the Study Area and Critical Issues -- 3.2 Description of the Basic Design Solutions -- 4 Results -- 5 Conclusions -- References -- A GIS-Based Approach to Enhance Safety and Accessibility of Shared Mobility Services -- 1 Introduction -- 2 Methodological Approach -- 2.1 Accessibility Score -- 2.2 Safety Score -- 3 Case Study -- 3.1 Territorial Framework -- 3.2 Data on the Use of Bikesharing in Palermo -- 3.3 Accident Data -- 4 Results Ad Discussions.

4.1 Accessibility and Safety Evaluation -- 5 Conclusions -- References -- Best Practices in Integrated Demand-Responsive Transport Services for People and Freight -- 1 Introduction -- 2 Integration in the People-Freight Transport: Planning Levels and Their Implications -- 2.1 Planning Strategic, Tactical and Operational Planning: Some Definitions -- 2.2 Key Factors for Strategic Planning -- 2.3 Key Factors for Tactical Planning -- 2.4 Key Factors for Operational Planning -- 3 Evaluation of Key Readings for Future Logistics: Challenges, Strategies, and Perspectives -- 4 Conclusion -- References -- Evaluating Accessibility Within a Multimodal Transport Network: The Case Study of the City of Catania -- 1 Introduction -- 2 Methodological Framework -- 2.1 First Phase: Study Area and Transport Supply -- 2.2 Second Phase: Multimodal Transport Network Accessibility Indicators -- 3 Case Study -- 3.1 Territorial Framework and Current Transport Supply -- 3.2 Methodology Implementation to the Case Study -- 4 Results and Discussion -- 5 Conclusions -- References -- Virtual Reality and Augmented Reality and Applications (VRA 2024) -- TeTieuVR: An Immersive VR Application Introducing the Captivating Art of TeTieu Puppetry -- 1 Introduction -- 2 Background and Related Works -- 2.1 TeTieu Puppetry -- 2.2 Related Works -- 3 TeTieuVR -- 3.1 Overview of TeTieuVR -- 3.2 Database Building -- 4 Museum Design -- 5 Navigation and Interaction -- 5.1 Navigation -- 5.2 Interaction -- 5.3 Interactive Game -- 6 Experiment and Evaluation -- 7 Conclusion -- References -- Drawing and Geometrical Interpretation of Historical Constructive Elements for Conservation Activities: The Sixteenth Century Coffered Wooden Ceilings and the "camorcanna" Vaults of the Villa Cicogna Mozzoni.

1 From "casino di caccia" to "villa di delizia": Historical Notes About the Transformation Along the Centuries of Villa Cicogna Mozzoni in Bisuschio (Varese, Italy) -- 2 3D Survey and Geometric Modeling of the Villa for the Analysis and Interpretation of the Transformations -- 3 Geometries and Construction Techniques of Coffered, Lacunar Wooden Floors -- 4 Geometries and Construction Techniques of Lightweight Frescoed "camorcanna" Vaults -- 5 Conclusion: The Interpretation of 2D and 3D Geometrical Model to Understand the State of the Structures and to Plan Conservation Activities -- References -- Exploring the Metaverse: Opportunities for Tourism and Territorial Development -- 1 Introduction -- 2 Related Works -- 3 The Proposed Strategy from Implementing Metaverses -- 3.1 Highlights of the Development of the Virtual World -- 3.2 Description of the Preliminary Experience -- 3.3 Usability Questionnaire -- 4 Conclusions -- References -- Testing Anchors, User Experience and Usability Among 4 Game Elements in a Kindy Immersive Augmented Reality Game -- 1 Introduction -- 1.1 Problems -- 1.2 Objectives -- 1.3 Hypotheses -- 1.4 Research Questions -- 1.5 Significance -- 2 Related Work -- 2.1 Cognitive Development Stages -- 2.2 Metaverse, Technology Acceptance, Self-efficacy, Self-directed Learning -- 2.3 Open-Ended Challenges/Surprise -- 2.4 Augmented Reality (AR) -- 2.5 Human-

Computer Interaction (HCI) -- 3 Methodology -- 3.1 Software Development Life Cycle -- 3.2 Participants -- 3.3 System Concept -- 3.4 Methods, Tools and Technologies -- 3.5 System Evaluation -- 4 Results -- 4.1 User Acceptance Testing Results -- 5 Discussion -- 6 Conclusion -- References -- Assessment Contribution

of an Architectural Indoor Healthy Status via Biosensors Particles Spatial Simulation -- 1 Introduction -- 2 Objectives and Innovation -- 2.1 Objectives of the Research Proposal.

2.2 Innovation of the Research Proposal -- 3 Low-Cost Sensors for Human Health -- 4 Comfort and Air Quality Studies - Discussions -- 5 Research Methodology -- 5.1 Introduction -- 5.2 Sensors Implementation and Comfort Conditions Measurements -- 5.3 Simulation System and Techniques -- 5.4 3D Building Geometry Modelling Process -- 5.5 Air Quality Values 3D Representation -- 5.6 Advantages/Limitations of Simulation and Modelling Processes -- 6 Conclusions -- References -- PhD Showcase Papers -- Bayesian Geostatistics Modeling of Maritime Surveillance Data -- 1 Introduction -- 2 Geostatistics for Binary Data -- 2.1 Geostatistical Model -- 2.2 Hierarchical Models -- 2.3 Geostatistical Model for Binary Data -- 2.4 INLA and SPDE Approaches for Bayesian Estimation and Prediction -- 3 Modelling Maritime Fisheries Surveillance Data -- 3.1 Data -- 3.2 Spatial Model for Maritime Presumed Fisheries Infractions -- 3.3 Spatio-Temporal Model for Maritime Presumed Infractions -- 4 Discussion -- References -- Evaluation of Reinforcement Learning Algorithms Applied to an Autonomous Car Model for Educational Purposes -- 1 Introduction -- 2 Methodology -- 2.1 Agent-Based Modelling -- 2.2 Reinforcement Learning -- 2.3 Markov Decision Process -- 2.4 Bellman Equation -- 2.5 Optimal Policy -- 2.6 Q-learning Algorithm -- 3 Implementation of Reinforcement Learning in Autonomous Car Model -- 3.1 Components of the Autonomous Car Model -- 3.2 Implementation of the Q-learning Algorithm on the Car Model -- 4 Preliminary Results and Discussions -- 5 Conclusions -- References -- Short Papers -- Post-disaster Analysis Using GIS and a Composite Index to Assess the Vulnerability of Human Settlements: Earthquake of Al Haouz, Morocco -- 1 Introduction -- 2 Study Site and Data -- 2.1 Study Site -- 3 Data -- 4 Methodology and Results.

4.1 Visualization of the Post-disaster Using MAXAR Satellite Imagery -- 5 Vulnerability Study Using the Composite Index -- 5.1 Index Calculation Method -- 5.2 Results and Mapping of the Vulnerability Index -- 5.3 Overlaying the Epicenter Map on the Resilience Map to Target Restructuring Actions -- 6 Conclusion -- References -- GARMENTO - A Modular Virtual Clothes Try-On System for Fashion Manufacturers -- 1 Introduction -- 2 System Design -- 3 Implementation and Results -- 3.1 Try-On Module -- 3.2 MLOps and Microservice Implementation -- 3.3 Result and Analysis -- 4 Conclusion and Future Works -- References -- Solving Maximum Cut Problem with Multi-objective Enhance Quantum Approximate Optimization Algorithm -- 1 Introduction -- 2 Preliminary -- 2.1 Quantum Approximate Optimization Algorithm -- 2.2 The Maximum Cut Problem -- 3 Multiobjective Optimization for QAOA -- 4 Numerical Simulation -- 5 Conclusion and Future Work -- References -- Seismic Resilience Study for a Prioritization Plan in a High Seismic Hazard Area -- 1 Introduction -- 2 Methodology -- 3 Case Study Description -- 4 Seismic Damage Scenario -- 5 Quantification of Resilience and Prioritization -- 6 Conclusions -- References -- On the Dynamics of a Family of 2D Finite Cellular Automata -- 1 Introduction -- 2 A Family of Two-Dimensional Finite Cellular Automata -- 3 On the

Dynamics for This Family of Cellular Automata -- 4 Final Remarks -- References -- Theoretical Insights on the S(1D) + H₂O Reaction and Implications on the Chemistry at the Surface of Ice in Extraterrestrial Environments -- 1 Introduction -- 2 Theoretical Methods -- 3 Results and Discussion -- 3.1 Isolated System -- 3.2 Cluster of Four Water Molecules -- 4 Conclusion -- References -- Will the Metaverse Be a New Working Platform for Real Estate Investors and Professionals? -- 1 Introduction.

1.1 The Research Scope and Contribution.