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Titolo	Methods and Applications for Modeling and Simulation of Complex Systems : 21st Asia Simulation Conference, AsiaSim 2022, Changsha, China, December 9-11, 2022, Proceedings, Part I / / edited by Wenhui Fan, Lin Zhang, Ni Li, Xiao Song
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Descrizione fisica	1 online resource (647 pages)
Collana	Communications in Computer and Information Science, , 1865-0937 ; ; 1712
Disciplina	003.3
Soggetti	Computer simulation Computer science - Mathematics Image processing - Digital techniques Computer vision Artificial intelligence Computer networks Computer Modelling Mathematics of Computing Computer Imaging, Vision, Pattern Recognition and Graphics Artificial Intelligence Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Modeling theory and methodology -- Research on Reuse and Reconstruction of Multi-resolution Simulation Model -- Simulation Experiment Factor Screening Method Based on Combinatorial Optimization -- Development of a Generic Mesh Converter for Numerical Simulations -- Design and Development of a Simulation Model Validation Tool -- Research on graphical modeling and simulation method of control system based on Python -- Continuous system/discrete event system/hybrid system/intelligent system modeling and simulation -- One-dimensional photonic crystal filter with multiple defect layers based on particle swarm optimization --

Linear Constant Discrete System Based Evaluation of Equipment System-of-Systems -- Online identification of Gaussian-process State-Space Model With Missing Observations -- Complex systems and open, complex and giant systems modeling and simulation -- System identification of nonlinear dynamical system with missing observations -- Parameter Identification of Nonlinear Systems Model Based on Improved Differential Evolution Algorithm -- Research and Implementation of Model Engineering Environment Integration Based on OpenMBEE -- Research on the Construction Method of Digital Twins of Complex Products -- A Portable Radar Jamming Simulation System Used for Flight Mounted Target -- A Decoupling Design Method of Compensated Active Disturbance Rejection Control for Multivariable System -- Integrated natural environment and virtual reality environment modeling and simulation -- Performance Degradation of Multi-Level Heterogeneous Middleware Communication in Virtual-Reality Simulation -- An Adaptive Low Illumination Color Image Enhancement Method Using Dragonfly Algorithm -- Target Recognition Method Based on Ship Wake Extraction from Remote Sensing Image -- Target Recognition Method Based on Ship Wake Extraction from Remote Sensing Image -- Target Recognition Method Based on Ship Wake Extraction from Remote Sensing Image -- Analysis and suppression for shaft torsional vibrations in wind energy conversion system with MPPT control -- Networked Modeling and Simulation.-Design and implementation of Gigabit Ethernet traffic integer module based on ZYNQ -- Flight simulation, simulator, simulation support environment, simulation standard and simulation system construction -- Flight Control of Underwater UAV Based on Extended State Observer and Sliding Mode Method -- Analysis of Autonomous Take-off and Landing Technology of Shipborne Unmanned Helicopter -- Research on UAV State Estimation Method Based on Variable Structure Multiple Model -- A study of self-position estimation method by lunar explorer by selecting corresponding points utilizing Gauss-Newton method -- Influence of wave parameters on taxiing characteristics of seaplane -- Target tracking and motion estimation of fixed wing UAVs based on vision measurement -- Wind aided Aerodynamic Characteristics in the Quadcopter UAV Control Modeling -- A Trajectory Re-planning Simulation Design of Multistage Launch Vehicle -- Research on Cooperative Multi-Constraint Guidance Law for leader-follower Multi-aircraft -- High performance computing, parallel computing, pervasive computing, embedded computing and simulation -- FPGA-based Hardware Modeling on Pigeon-inspired Optimization Algorithm -- CAD/CAE/CAM/CIMS/VP/VM/VR/SBA -- An end-to-end edge computing system for real-time tiny PCB defect detection -- Simulation and Analysis of the Scattering Minifying Function of Electromagnetic Wave Expander.-The Study on Flow Characteristics of Inlet Flow Field of Compressor Experiment -- Real-Time Ski Jumping Trajectory Reconstruction and Motion Analysis using the Integration of UWB and IMU -- Numerical Simulation Analysis of Flow Field in Intake System of A Core Engine Test -- Big data challenges and requirements for simulation and knowledge services of big data ecosystem -- A Review of Failure Prediction in Distributed Data Centers -- A Knowledge Graph Based Approach to Operational Coordination Recognition in Wargame -- Artificial intelligence for simulation -- Heavy-duty Emission Prediction Model Using Wavelet Features and ResNet? -- Solder Paste Printing Quality Prediction Model Based on PSO Optimization -- Hierarchy SeparateEMD For Few-Shot Learning -- Improving the Accuracy of Homography Matrix Estimation for Disturbance Images Using Wavelet Integrated CNN -- Defect detection of tire shoulder belt

cord joint based on periodic texture -- A 3D reconstruction network based on multi-sensor -- 3D Point Cloud Registration Method Based on Structural Matching of Feature Points -- Research on Navigation Algorithm of Unmanned Ground Vehicle Based on Imitation Learning and Curiosity Driven -- Improving Depth Perception using Edge Highlighting in Transparent Stereoscopic Visualizations of Laser-Scanned 3D Point Clouds -- Modeling of Stepper Motor Fault Diagnosis Based on GRU Time Series Analysis.

Sommario/riassunto

The two-volume set CCIS 1712 and 1713 constitutes the proceedings of the 21st Asian Simulation Conference, AsiaSim 2022, which took place in Changsha, China, in January 2023. Due to the Covid pandemic AsiaSim 2022 has been postponed to January 2023. The 97 papers presented in the proceedings were carefully reviewed and selected from 218 submissions. The contributions were organized in topical sections as follows: Modeling theory and methodology; Continuous system/discrete event system/hybrid system/intelligent system modeling and simulation; Complex systems and open, complex and giant systems modeling and simulation; Integrated natural environment and virtual reality environment modeling and simulation; Networked Modeling and Simulation; Flight simulation, simulator, simulation support environment, simulation standard and simulation system construction; High performance computing, parallel computing, pervasive computing, embedded computing and simulation; CAD/CAE/CAM/CIMS/VP/VM/VR/SBA; Big data challenges and requirements for simulation and knowledge services of big data ecosystem; Artificial intelligence for simulation; Application of modeling/simulation in science/engineering/society/economy /management/energy/transportation/life/biology/medicine etc; Application of modeling/simulation in energy saving/emission reduction, public safety, disaster prevention/mitigation; Modeling/simulation applications in the military field; Modeling/simulation applications in education and training; Modeling/simulation applications in entertainment and sports.