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Nota di contenuto	-- Simulation Theory and Methodology. -- State of Health Estimation for Lithium-ion Batteries withan Attention-Integrated BiLSTM-MLP Hybrid Model. -- A mapping method from experimental scenario to experimental system scheme. -- A Toolbox for Simulation and Analysis ofStructured Light 3D Reconstruction Systems. -- A deep reinforcement learning algorithm to bring about stabilization of Hindmarsh-Rose neural model. -- Synchronization between two Hindmarsh-Rose neural models via deep reinforcement learning methodl. -- EmuGuard: An Active Defense System For ICS Emulation. -- Distributed Deep Reinforcement Learning Based Deterministic Task Offloading in End-Edge-Cloud Collaborative Computing Networks. -- Survey of Ubiquitous Cyberspace Visualization Based on Ontology Engineering. -- Simulation for CI scenario. -- Towards Secure Multilayer Networks: Modeling and Robustness Analysis of 3IOTs. -- Efficient Cross-domain Energy Sharing with lattice-based Aggregated Signature for Blockchain-enabled Smart Grid. -- Comprehensive Analysis of Scenario Matching Techniques in Cyberspace Security. -- A Lightweight DTLS Mechanism for New Power Systems Based on Edge Computing. -- Adaptive Frequency and Delay Compensation in MultiAgent Systems: Enhancing Communication Efficiency and

Robustness. -- An efficient switching mechanism of satellite and terrestrial links for satellite internet and simulation evaluation. -- MSCVP: Multiscale Network Emulation Based on the Integration of Modeling, Simulation, Container, Virtualization, and Physical Networks. -- Defense Methodology in the Evaluation. -- Distributed Fiber Acoustic Sensing Home Anomaly Detection Technology Based on Lightweight YOLO. -- MTMixAD: Metric-Trace Mixed Anomaly Detection Framework for Microservice Systems with Limited and Mislabeled Data. -- HTTP DDoS Attack Detection Technology Based on PF-RING and Gaussian Naive Bayes in Containerized Environment. -- A Novel Approach for Advanced Persistent Threats Detection via Graph Transformer. -- Optimization Framework for Malware Detection Based on Adversarial Networks and Gradient Reversal. -- LIDS: Enhancing Industrial IoT Network Security through Lightweight Machine Learning-Powered Intrusion Detection System. -- Efficient Intrusion Detection in Edge Computing with eBPF and Lightweight Networks. -- Zypkro: A Node-Level Anomaly Detector for Provenance Graphs Based on Nonlinear Interaction and Adaptive Domain Techniques. -- A Double-Shell Structured Ransomware Defense Method Tailored for the RaaS Model. -- Simulation for IoT scenario. -- I-GATEPi: An adaptive and interpretable monitoring framework for complex industrial processes. -- DSA-Former: Dual-Stage Attention for Soft Sensing in Blast Furnace Ironmaking Process. -- Power Prediction Model Based on CNN-LSTM with Dual- Stream Attention. -- Modeling and prediction of gas consumption for slab heating in steel rolling reheating furnace based on gradient boosting decision tree with Bayesian optimization. -- Adaptive Particle Swarm Optimization-Simulated Annealing for Complex Workshop Task Scheduling. -- Self-Tuning Ensemble Empirical Mode Decomposition for Industrial Oscillation Extraction. -- Recovery of Control-loop Oscillations in Industrial Time Series with Missing Values.

Sommario/riassunto

This three volume set, CCIS 2420 - 2422 , constitutes the proceedings of the Third International Conference on Cyberspace Simulation and Evaluation, CSE 2024, held in Shenzhen, China, during November 26–28, 2024. The 90 full papers included in this book were carefully reviewed and selected from 164 submissions. These papers are organized under topical sections as follows: - Part I : Simulation Theory and Methodology; Simulation for CI scenario; Defense Methodology in the Evaluation; and Simulation for IoT scenario. Part II : Attack Methodology in the Evaluation; Other Simulation and Evaluation methods; Evaluation Theory and Methodology; and Defense Methodology in the Evaluation. Part III: Defense Methodology in the Evaluation; Design and Cybersecurity for AIoT Systems; Metaverse and Simulation; Secure IoT and Blockchain -Enabled Solutions; Software and Protocols Security Analysis; and Test and Evaluation for Cybersecurity.