

# **2024 33rd International Conference on Computer Communications and Networks (ICCCN 2024)**

**Kailua-Kona, Hawaii, USA  
29-31 July 2024**

**Pages 1-394**



**IEEE Catalog Number: CFP24143-POD  
ISBN: 979-8-3503-4843-9**

**Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP24143-POD
ISBN (Print-On-Demand):	979-8-3503-4843-9
ISBN (Online):	979-8-3503-8461-1
ISSN:	1095-2055

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

## **SESSION 1: SECURITY, PRIVACY AND TRUST I**

A Neuro-Symbolic Artificial Intelligence Network Intrusion Detection System .....	1
<i>Alice Bizzarri, Brian Jalaian, Fabrizio Riguzzi, Nathaniel D. Bastian</i>	
Agent Deprogramming Finetuning Away Backdoor Triggers for Secure Machine Learning Models/LLMs.....	10
<i>Demarcus Edwards, Danda B. Rawat</i>	
QuadraCode AI: Smart Contract Vulnerability Detection with Multimodal Representation.....	16
<i>Jiblal Upadhya, Kritagya Upadhyay, Arpan Sainju, Samir Poudel, Md Nahid Hasan, Khem Poudel, Jaishree Ranganathan</i>	
RobustETH: Ensuring Economic Fairness in ETH2.0's Distributed Validator Technology .....	25
<i>Shenghang Chen, Zhicheng Xu, Kun Zhou, Xiaoli Zhang, Hongbing Cheng</i>	

## **SESSION 2: NETWORK ARCHITECTURES, PROTOCOLS AND OPTIMIZATION I**

Flow Correlator: A Flow Table Cache Management Strategy .....	34
<i>Luke McHale, Paul V. Gratz, Alex Sprintson</i>	
In-Network Reinforcement Learning for Attack Mitigation Using Programmable Data Plane in SDN.....	43
<i>Aparna Ganesan, Kamil Sarac</i>	
Detecting IP Prefix Mismatches on SDN Data Plane .....	52
<i>Shu-Po Tung, Yu-Min Lin, Keng-Lun Chang, Hsu-Chun Hsiao, Tiffany Hyun-Jin Kim</i>	
Energy-Efficient Deployment of Stateful FaaS Vertical Applications on Edge Data Networks.....	61
<i>Claudio Cicconetti, Raffaele Bruno, Andrea Passarella</i>	
Lightweight Coordinated Sampling for Dynamic Flows Under Budget Constraints .....	70
<i>Mingming Chen, Thomas La Porta, Trent Jaeger, Srikanth Krishnamurthy</i>	
Efficient URL and URI Compression.....	79
<i>Felix Savins, Kevin Saric, Gowri Sankar Ramachandran, Raja Jurdak</i>	

## **SESSION 3: INVITED TALKS 1**

Learning-Based WiFi Fingerprint Inpainting Via Generative Adversarial Networks.....	88
<i>Yu Chan, Pin-Yu Lin, Yu-Yun Tseng, Jen-Jee Chen, Yu-Chee Tseng</i>	
Traffic Engineering in Large-Scale Networks Via Multi-Agent Deep Reinforcement Learning with Joint-Training .....	95
<i>Van An Le, Duc Long Nguyen, Phi Le Nguyen, Yusheng Ji</i>	
RecuGAN: A Novel Generative AI Approach for Synthesizing RF Coverage Maps.....	104
<i>Sopan Sarkar, Mohammad Hossein Manshaei, Marwan Krunz, Hamid Ravaee</i>	

FL-EVCS: Federated Learning Based Anomaly Detection for EV Charging Ecosystem .....	113
<i>Shaurya Purohit, Manimaran Govindarasu</i>	

#### **SESSION 4: SOCIAL NETWORKS, EXTENDED REALITY AND METAVERSE**

Deadline-Oriented Flow Control for Real-Time UHD Videos in 5G Edge Networks.....	122
<i>Wanghong Yang, Wenji Du, Baosen Zhao, Tingting Yuan, Yongmao Ren, Xu Zhou, Qinghua Wu, Xiaoming Fu</i>	
Sleepwalker: Constrastive Fine-Tuning Technique for Text to Kinematics Models for Human Computer Interaction.....	131
<i>Demarcus Edwards, Danda B. Rawat</i>	
Evaluation of Hardware-Based Video Encoders on Modern GPUs for UHD Live-Streaming .....	138
<i>Kasidis Arunruangsirilert, Jiro Katto</i>	
Large Language Model-Guided Disentangled Belief Representation Learning on Polarized Social Graphs .....	147
<i>Jinning Li, Ruipeng Han, Chenkai Sun, Dachun Sun, Ruijie Wang, Jingying Zeng, Yuchen Yan, Hanghang Tong, Tarek Abdelzaher</i>	
Toward Multimodal Vertical Federated Learning: A Traffic Analysis Case Study .....	156
<i>Agnideven Palanisamy Sundar, Feng Li, Xukai Zou, Tianchong Gao</i>	

#### **SESSION 5: EDGE AND CLOUD COMPUTING**

Cloudy Forecast: How Predictable is Communication Latency in the Cloud?.....	165
<i>Owen Hilyard, Bocheng Cui, Marielle Webster, Abishek Bangalore Muralikrishna, Aleksey Charapko</i>	
Towards Optimal Load Balancing in Multi-Zone Kubernetes Clusters Via Reinforcement Learning .....	174
<i>José Santos, Tim Wauters, Filip De Turck, Peter Steenkiste</i>	
Cooperative Task Offloading for Multi-Access Edge-Cloud Networks: A Multi-Group Multi-Agent Deep Reinforcement Learning.....	183
<i>Akito Suzuki, Masahiro Kobayashi, Eiji Oki</i>	
Individual Dynamic Real-Time Range Queries in Adaptive Quad Streaming .....	192
<i>Simon Keller, Rainer Mueller</i>	
An Edge Resource Selection Scheme Considering QoS and Computational Parameters .....	201
<i>Matthias Frei, Reinhard German, Anatoli Djanatliev</i>	
Impact of Client Choice on Distributed Resource Allocation in Edge Computing .....	210
<i>Caroline Rublein, Fidan Mehmeti, Mark Mahon, Thomas F. La Porta</i>	

#### **SESSION 6: INVITED TALKS 2**

A Novel Neural Networks-Based Framework for APT Detection in Networked Autonomous Systems.....	219
<i>Hassan El Alami, Danda B. Rawat</i>	

Hybrid Quantum-Classical Computing Via Dantzig-Wolfe Decomposition for Integer Linear Programming.....	225
<i>Xinliang Wei, Jiyao Liu, Lei Fan, Yuanxiong Guo, Zhu Han, Yu Wang</i>	
Beyond Wake Words: Advancing Smart Speaker Protection with Continuous Authentication and Local Profiles .....	234
<i>Luca Hernández Acosta, Andreas Reinhardt, Tobias Müller, Delphine Reinhardt</i>	
CasePad: Privacy-Preserving Finger Activity Sensing Via Passive Acoustic Signals Enhanced by Mini-Structures in Smartphone Cases .....	243
<i>Zhengkun Ye, Yan Wang, Yingying Chen</i>	
Adversarial Attack Detection for Deep Learning Driving Maneuver Classifiers in Connected Autonomous Vehicles.....	252
<i>Tanmoy Sen, Haiying Shen</i>	
Foundations of In-Network Quantum Computing for Future Communication Networks.....	261
<i>Yannik Böck, Holger Boche, Riccardo Bassoli, Frank H. P. Fitzek</i>	

## **SESSION 7: SECURITY, PRIVACY AND TRUST II**

DDD: A DNS-Based DDoS Defense Scheme Using Puzzles.....	270
<i>Hyeonmin Lee, Taehyun Kang, Sukhun Yang, Jinyong Jun, Taekyoung Kwon</i>	
Redefining DDoS Attack Detection Using a Dual-Space Prototypical Network-Based Approach .....	279
<i>Fernando Martinez, Mariyam Mapkar, Ali Alfatemi, Mohamed Rahouti, Yufeng Xin, Kaiqi Xiong, Nasir Ghani</i>	
On Improved Efficiency and Forward Security of 0-RTT Key Exchange for SDP.....	288
<i>Lei Zhang, Jingguo Ge, Yulei Wu, Tong Li, Hui Li, Yuepeng E.</i>	
Fake Base Station Detection and Blacklisting.....	297
<i>Sourav Purification, Simeon Wuthier, Jinoh Kim, Jonghyun Kim, Sang-Yoon Chang</i>	
Advancing Network Security with Quantum-Safe System Integration .....	306
<i>Jianzhou Mao, Guobin Xu, Eric Sakk, Shuangbao Wang</i>	

## **SESSION 8: NETWORK ARCHITECTURES, PROTOCOLS AND OPTIMIZATION II**

Improving Web Content Delivery with HTTP/3 and Non-Incremental EPS.....	315
<i>Abhinav Gupta, Radim Bartos</i>	
Usage-Dependent Quality of Service for Free WiFi Networks .....	324
<i>Robin Laidig, Jona Herrmann, Frank Dürr, Kurt Rothermel</i>	
Comparing Space Versus Surface Gateways for Internetworking pLEO Satellite Networks.....	333
<i>Allan Ko, Thomas Shake, Rahul Amin</i>	
Secure and Efficient Entanglement Distribution Protocols for Near-Term Quantum Internet .....	342
<i>Nicholas Skjellum, Mohamed Shaban, Muhammad Ismail</i>	

### **SESSION 9: INVITED TALKS 3**

Performance Analysis for Underwater Video Transmission with Imperfect Resampling.....	351
<i>Rana Hegazy, Laurence Milstein, Pamela Cosman</i>	
On the Potential of an Independent Avatar to Augment Metaverse Social Networks.....	360
<i>Theofanis P. Raptis, Chiara Boldrini, Marco Conti, Andrea Passarella</i>	
Impact of Latency and Bandwidth Limitations on the Safety Performance of Collaborative Perception.....	369
<i>Dereje Shenkut, B. V. K. Vijaya Kumar</i>	
ECG-Grained Cardiac Monitoring Using RFID.....	377
<i>Ningning Wang, Tianya Zhao, Shiwen Mao, Harrison X. Bai, Zhicheng Jiao, Xuyu Wang</i>	
iCrop: Enabling High-Precision Crop Disease Detection Via LoRa Technology.....	386
<i>Xu Tao, Jackson Butcher, Simone Silvestri, Flavio Esposito</i>	
Digital Twin Continuum: A Key Enabler for Pervasive Cyber-Physical Environments.....	395
<i>Antonello Barbone, Samuele Burattini, Matteo Martinelli, Marco Picone, Alessandro Ricci, Antonio Virdis</i>	

### **SESSION 10: SECURITY, PRIVACY AND TRUST III**

Performance Or Anonymity? Source-Driven Tor Relay Selection for Performance Enhancement.....	404
<i>Kelei Zhang, Sang-Yoon Chang</i>	
Appro-Fun: Approximate Machine Unlearning in Federated Setting.....	413
<i>Zuobin Xiong, Wei Li, Zhipeng Cai</i>	
Hide-And-Seek: Data Sharing with Customizable Machine Learnability and Privacy .....	422
<i>Hairuo Xu, Tao Shu</i>	
Explainability Guided Adversarial Evasion Attacks on Malware Detectors .....	431
<i>Kshitiz Aryal, Maanak Gupta, Mahmoud Abdelsalam, Moustafa Saleh</i>	
Explainability-Informed Targeted Malware Misclassification .....	440
<i>Quincy Card, Kshitiz Aryal, Maanak Gupta</i>	
Improving Android Malware Detection with Entropy Bytecode-To-Image Encoding Framework.....	448
<i>Saleh J. Makkawy, Abdalrahman H. Alblwi, Michael J. De Lucia, Kenneth E. Barner</i>	

### **SESSION 11: PERVASIVE COMMUNICATIONS, NETWORKING AND SENSING**

Enabling Reliable Environmental Sensing with LoRa, Energy Harvesting, and Domain Adaptation.....	457
<i>Aitian Ma, Jean C. Tondoy Rodriguez, Mo Sha</i>	
Mitigating Cross-Technology Interference in Low-Power Wireless Networks .....	466
<i>Waltenegus Dargie, Zegeye Mekasha Kidane</i>	
Acoustic-Based Alphanumeric Input Interface for Earables .....	474
<i>Yilin Wang, Zi Wang, Jie Yang</i>	

Eavesdropper-Avoiding Neighbor Discovery for Multi-Sector Directional Wireless Systems .....	483
<i>Md Asif Ishrak Sarder, Murat Yuksel, Elizabeth Bentley</i>	
UAV Trajectory Optimization for Air-To-Water Optical Wireless Channels.....	492
<i>Sk Samiul Reza, Murat Yuksel</i>	
RAPID: Reinforcement Learning-Aided Femtocell Placement for Indoor Drone Localization.....	501
<i>Alireza Famili, Amin Tabrizian, Tolga Atalay, Angelos Stavrou, Peng Wei</i>	

#### **SESSION 12: INVITED TALKS 4**

LEMUR: Efficient Multicasting in Ad-Hoc Networks Using Label Switching and Unicast Routing.....	510
<i>Dylan Cirimelli-Low, J. J. Garcia-Luna-Aceves</i>	
Cyrus: A DRL-Based Puncturing Solution to URLLC/eMBB Multiplexing in O-RAN.....	517
<i>Ehsan Ghoreishi, Bahman Abolhassani, Yan Huang, Shiva Acharya, Wenjing Lou, Y. Thomas Hou</i>	
On the Impact of Overcoming Wake-Up Radio Limitations on the Performance of Energy Aware Routing in Wireless Sensor Networks .....	526
<i>Abhimanyu V. Sheshashayee, Chiara Petrioli, Stefano Basagni</i>	
Unlocking Efficiency in B5G Networks: The Need for Adaptive Service Function Chains .....	535
<i>David Perez Abreu, Karima Velasquez, Marilia Curado, Edmundo Monteiro</i>	

#### **SESSION 13: IOT AND CYBER-PHYSICAL SYSTEMS**

Content Caching Optimization Based on Improved Bandit Learning Algorithm.....	543
<i>Miao Li, Siyi Qiu, Jiong Liu, Wenping Song</i>	
Data Augmentation for Human Activity Recognition Via Condition Space Interpolation Within a Generative Model .....	547
<i>Tianshi Wang, Yizhuo Chen, Qikai Yang, Dachun Sun, Ruijie Wang, Jinyang Li, Tomoyoshi Kimura, Tarek Abdelzaher</i>	
Super-Resolution Localization and Tracking in WiFi Sensing .....	556
<i>Jian Wang, Jack Chuang, Sebastian Semper, Nada Golmie</i>	
Intelligent Trajectory-Based Approach to UAV Location Integrity Checks .....	565
<i>Mincheol Shin, Sang-Yoon Chang, Jonghyun Kim, Kyungmin Park, Jinoh Kim</i>	
KESIC: Kerberos Extensions for Smart, IoT and CPS Devices .....	574
<i>Renascence Tarafder Prapty, Sashidhar Jakkamsetti, Gene Tsudik</i>	

#### **SESSION 14: INVITED TALKS 5**

Enhancing Capacity of Optical Circuit Switching Clos Network in Data Center: Progress and Challenges .....	583
<i>Eiji Oki, Haruto Taka, Takeru Inoue</i>	
Networking Experiments in the Keio Future Photonic Network Open Laboratory with Field-Installed Hollow-Core Optical Fiber Cables .....	592
<i>Satoru Okamoto</i>	

Acies-OS: A Content-Centric Platform for Edge AI Twinning and Orchestration .....	601
<i>Jinyang Li, Yizhuo Chen, Tomoyoshi Kimura, Tianshi Wang, Ruijie Wang, Denizhan Kara, Yigong Hu, Li Wu, Walid A. Hanafy, Abel Souza, Prashant Shenoy, Maggie Wigness, Joydeep Bhattacharyya, Jae Kim, Guijun Wang, Greg Kimberly, Josh Eckhardt, Denis Osipychev, Tarek Abdelzaher</i>	
Clearing Clouds from the Horizon: Latency Characterization of Public Cloud Service Platforms.....	610
<i>Rita Ingabire, Antonio Bazco-Nogueras, Vincenzo Mancuso, Luis M. Contreras, Jesus Folgueira</i>	
A MECApp-Aware Lifecycle Management Approach in 5G Edge-Cloud Deployments.....	619
<i>Paolo Bellavista, Armir Bujari, Luca Foschini, Andrea Sabbioni, Riccardo Venanzi</i>	

## **POSTER SESSION**

Poster: Embedded-Based Differentiated Communication for Remote ECG Monitoring with a Multi-Level Blockchain System.....	625
<i>Chathumi Samaraweera, Dongming Peng, Adarsha Bhattarai, Yutong Liu</i>	
Implementation and Performance Measurement of the SUHDSA (Secure, Useful, and High-Performance Data-Stream Anonymization)+ Algorithm .....	627
<i>Jiyeon Lee, Soonseok Kim</i>	
The Remote Networking Lab Manager .....	629
<i>Marek Michalski</i>	
Switching Fabric Internal State Analyzer .....	631
<i>Marek Michalski</i>	
The Hardware and Software Test Bed for MPTCP .....	633
<i>Marek Michalski</i>	
Hardware Simulation of Multi-Service Queues.....	635
<i>Joanna Weissenberg, Marek Michalski</i>	
ViEdge: An Edge-Based Platform for Video Analytics Applications in Smart Estates .....	637
<i>Vishal Choudhary, Rahul Aggarwal, Hock Beng Lim, Binbin Chen</i>	
Private Set Intersection Protocol with Perfect Hashing on OKVS: An Enhanced Approach for Privacy-Preserving Operations .....	639
<i>Jiyeon Lee</i>	
Advanced DDoS Attack Classification Using Ensemble Model with Meta-Learner .....	641
<i>Ankith Indra Kumar, Genya Ishigaki</i>	

## **ISCC-IOT**

A Cost-Effective Long-Distance Industrial IoT System .....	643
<i>Guoping Wang</i>	
QATFP-YOLO: Optimizing Object Detection on Non-GPU Devices with YOLO Using Quantization-Aware Training and Filter Pruning .....	648
<i>Gift Idama, Yifan Guo, Wei Yu</i>	



Performance Analysis of HFrFT Based on Wigner Transform for ISAC Applications .....	654
<i>Mohammad Reza Mousavi, Stephan Ludwig</i>	
Privacy-Preserving Group Closeness Maximization .....	660
<i>Zihao Zhao, Sijia Cao, Hanlin Zhang, Jie Lin, Fanyu Kong, Leyun Yu</i>	
Leveraging Blockchain and Coded Computing for Secure Edge Collaborate Learning in Industrial IoT .....	666
<i>Yuliang Chen, Xi Lin, Hansong Xu, Siyi Liao, Jin Guo, Chunming Zou</i>	

## **BDMLN**

Edge Computing Network Intrusion Detection System in IoT Using Deep Learning.....	672
<i>Andres Hinojosa, Nahid Ebrahimi Majd</i>	
Neural Network-Based Blocking Prediction for Dynamic Network Slicing.....	678
<i>Nitin Datta Movva, Genya Ishigaki</i>	
Scaling Container Caching to Larger Networks with Multi-Agent Reinforcement Learning .....	684
<i>Austin Chen, Genya Ishigaki</i>	
Beyond Traditional Methods: Deep Learning with Data Augmentation for Robust Access Control .....	689
<i>Mustafa Al Lail, Daniela Pinto, Luis Alvarez Almanza, Francisco Salazar, Carolina Rizzi</i>	
Uncertainty-Aware Forecasting of Computational Load in MECs Using Distributed Machine Learning: A Tokyo Case Study .....	695
<i>Phil Aupke, Akihiro Nakao, Andreas Kessler</i>	
Channel Estimation for MIMO-OTFS Satellite Communication: A Deep Learning-Based Approach .....	701
<i>Yuan Gao, Xinchun Xu, Bintao Hu, Jianbo Du, Wenrui Yang, Yanliang Jin</i>	

## **COHERENT**

Sharing Stateless Containers Among MEC Applications Composed of Multiple Containers .....	707
<i>Shuntaro Yanagisawa, Kohki Yamada, Atsushi Sekiguchi, Takao Kondo, Ken Kumakura, Keisuke Maesako, Liang Zhang, Kosuke Mori, Fumio Teraoka</i>	
ECO: Edge Continuum Orchestrator Framework for Managing Serverless Chains Across the Cloud-Edge Spectrum .....	713
<i>Muhammed Alarbi, Robert Belson, Hanan Lutfiyya</i>	
Trusting the Cloud-Native Edge: Remotely Attested Kubernetes Workers .....	719
<i>Jordi Thijsman, Merlijn Sebrechts, Filip De Turck, Bruno Volckaert</i>	
DeePref: Deep Reinforcement Learning for Video Prefetching in Content Delivery Networks .....	725
<i>Nawras Alkassab, Chin-Tser Huang, Tania Lorida Botran</i>	

## **SMARTCITYCOM**

CoWiL: Combating Cross-Technology Interference in LoRaWAN .....	731
<i>Chenglong Shao, Kazuya Tsukamoto, Yi-Wei Ma, Yingbo Hua, Xianpeng Wang</i>	

Hybrid LoRa Network Architecture: Automatic Switching Between LoRaWAN and LoRa Mesh Network in Environments with Dynamic Obstacle Variations .....	737
<i>Hyungsub Kim, Hayoung Kim, Somi Baek, Ryan Melenchuk, Jaden Soroka, Anthony Smith</i>	

### **BDSSN I**

A Distortion Free Watermark Scheme for Relational Databases .....	743
<i>Jiang Han, Xiaowei Peng, Hequn Xian, Dalin Yang</i>	
Securing Federated Learning: Enhancing Defense Mechanisms Against Poisoning Attacks.....	749
<i>Benjamin Birchman, Geethapriya Thamilarasu</i>	
Data Security Approaches to Support Open Science on High-Performance Computing Systems .....	755
<i>Md Kamal Hossain Chowdhury, Purushotham V. Bangalore</i>	
Digital Twin Based Internet of Vehicles .....	761
<i>Cheng Qian, Mian Qian, Kun Hua, Hengshuo Liang, Guobin Xu, Wei Yu</i>	
Big Data Quality Scoring for Structured Data Using MapReduce .....	767
<i>Yalong Wu, Shalini Dhamodharan, Vinuthna Ghattamaneni, Narmada Kokila, Chandrika Pathakamuri, Timothy Carter, Pu Tian, Kewei Sha</i>	

### **AIECNI**

Web3.0 Literary Landscape: Deep Learning and Blockchain for Nobel Prize Predictions .....	773
<i>Sida Huang, Jialuoyi Tan, Yuji Dong, Jie Zhang</i>	
Decentralized Multi-Agent Reinforcement Learning for Large-Scale Mobile Wireless Sensor Network Control Using Mean Field Games .....	779
<i>Zejian Zhou, Lijun Qian, Hao Xu</i>	
Exploring Similarity-Based Graph Compression for Efficient Network Analysis and Embedding .....	785
<i>Hamdi Selim Akin, Mehmet Emin Aktas, Muhammed Ifie Islam, Tanvir Hossain, Esra Akbas</i>	

### **IOTSPT**

SHPAC: Fine-Grained and Multi-Platform Supported Access Control System for Smart Home Scenario.....	791
<i>Yiyu Yang, Yuqing Zhang</i>	
Towards Protecting On-Device Machine Learning with RISC-V Based Multi-Enclave TEE.....	797
<i>Yongzhi Wang, Venkata Sai Ramya Padmasri Boggaram</i>	
LibGuard: Protecting Sensitive Data in Android Third-Party Libraries from XLDH Attacks .....	803
<i>Fannv He, Jice Wang, Yuhang Huang, Xiancui Peng, Yuqing Zhang</i>	
Predicting F1-Scores of Classifiers in Network Intrusion Detection Systems .....	809
<i>Priscila Silva, Gaspard Baye, Alexandre Broggi, Nathaniel D. Bastian, Gokhan Kul, Lance Fiondella</i>	

**BDSSN II + AIECN II**

Location Privacy Protection Method with Route Constraints ..... 815  
*Jiang Han, Hequn Xian, Dalin Yang, Han Jiang*

Privacy-Preserving Edge Assistance for Solving Matrix Eigenvalue Problem ..... 821  
*Xiaotong Zhao, Hanlin Zhang, Jie Lin, Fanyu Kong, Leyun Yu*

Multimodal Frequency Spectrum Fusion Schema for RGB-T Image Semantic Segmentation..... 827  
*Hengyan Liu, Wenzhang Zhang, Tianhong Dai, Longfei Yin, Guangyu Ren*

**Author Index**