

# **2025 7th International Conference on Blockchain Computing and Applications (BCCA 2025)**

**Dubrovnik, Croatia  
14-17 October 2025**

**Pages 1-458**



**IEEE Catalog Number: CFP25Y46-POD  
ISBN: 979-8-3315-0297-3**

**Copyright © 2025 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:	CFP25Y46-POD
ISBN (Print-On-Demand):	979-8-3315-0297-3
ISBN (Online):	979-8-3315-0296-6

**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

Multivariate Stochastic Optimization Arbitrage.....	1
<i>Hongshen Yang</i>	
Leveraging AI Agents for Task Automation in Blockchain Wallets with Account Abstraction.....	8
<i>Ivan Dimitrov, Wolfgang Prinz</i>	
Towards a LLM-Based AML/CFT Compliance Framework for Cross-Border Blockchain Payments .....	16
<i>Chukwunonso Ngwu, Zakwan Jaroucheh, Nikolaos Pitropakis</i>	
Can Smart Contracts Generate Digital Signatures?.....	24
<i>Kazumasa Omote</i>	
Using Graph Cycle Detection to Reveal Suspicious Ethereum Token Transfer Behaviour.....	31
<i>Andrew Le Gear, Farshad Ghassemi Toosi, Ashish Rajendra Sai, Tawny Whatmore, Jim Buckley</i>	
Hierarchical Cellular Automata Consensus Blockchain.....	39
<i>Davut Çulha</i>	
Getting Serious on Securing AI Tasks for Decentralized Applications .....	47
<i>Vanessa Carls, Marc Jansen, Christophe Verdot</i>	
Predictive Caching for Bitcoin Core: Enhancing UTXO Set Management with Machine Learning .....	53
<i>Gorka Pineda Burgueño, Cristina Pérez-Solà</i>	
ZeKSA: Zero-Knowledge Secured Anonymous IoT Resource Sharing on Blockchain.....	59
<i>Muhammad Yasir, Kubra Kalkan</i>	
Unveiling the Behavioral Pattern of Cryptocurrency Exchange Services Based on Transaction Analysis.....	68
<i>Jaeyun Lee, Won-Woong Kim, Byung Wan Suh, Joonhong Kim, Yonghee Shin</i>	
Hybrid Blockchain and Off-Chain Storage for Real-Time Data: An Interval-Based Hashing Approach .....	76
<i>Marcel Pehlke, Sophia Fedder, Clemens Schmitt, Emerick Ndappe, Niklas Frochte, Marc Jansen</i>	
A Risk Analysis of Non-Custodial Staking in Ethereum.....	82
<i>Daniel Molina, Jordi Herrera-Joancomartí</i>	
MerkleChain: A Privacy-Enhanced and Flexible Merkle-Tree-Based Blockchain Architecture.....	90
<i>Ravi Mukkamala, Stephan Olariu, Sandeep Kalari</i>	
PoW++: An Energy Efficient Proof-Of-Work Variant.....	98
<i>Vaibhav Agarwal, Harsha Vardhan, Aniket Kumar, Hitesh Tewari</i>	
Order Fairness Evaluation of DAG-Based Ledgers .....	106
<i>Erwan Mahe, Sara Tucci-Piergiovanni</i>	
Blockchain-Based Ecosystem for Fair and Ownership-Preserving Document-Sharing in LLM Use Cases.....	115
<i>Sascha Nievelstein, Wolfgang Prinz</i>	

A Decentralized and Privacy-Preserving Voting System with Enigma.....	123
<i>Stefano Bistarelli, Ivan Mercanti, Paolo Santancini, Francesco Santini, Marco Timpanella</i>	
Unmasking Malicious Actors: Tracing Scammers on the Ethereum Blockchain .....	131
<i>Tanmay Thapliyal, Aman Gupta, Rachit Agarwal, Sandeep Kumar Shukla</i>	
Oracleboros: Reusing Hyperledger Fabric Mechanisms to Provide Oracle Functionality .....	139
<i>Michal Koutenský, Vladimír Veselý</i>	
From Theory to Implementation of Quantum-Safe Ledgers with XRPL as a Case Study .....	145
<i>Atharva Lele, Vaibhav Agarwal, Hitesh Tewari</i>	
Enhanced Efficient Fast Data Availability Sampling Under Majority Dishonest Byzantine Attacks .....	153
<i>Arunima Chaudhuri, Csaba Kiraly, Leonardo Bautista-Gomez</i>	
A Quantitative Study Across CIA (Confidentiality, Integrity, Availability) Triad and Performance in Blockchain-Based Crypto-Space .....	161
<i>J. Seol, J. Deuja, Indy N. Park, Cong Pu, N. Park</i>	
An Aid to Mitigate Online Misinformation with Self-Sovereign Identity and Artificial Intelligence .....	169
<i>Calogero Turco, Andrea De Salve, Damiano Di Francesco Maesa, Paolo Mori, Laura Ricci</i>	
A Range-Based Sharding (RBS) Protocol for Scalable Enterprise Blockchain.....	178
<i>M. Z. Haider, M. Dias De Assunção, Kaiwen Zhang</i>	
A Novel Framework Fostering Citizen Science with Blockchain-Based Decentralized Autonomous Communities .....	187
<i>Rituparna Bhattacharya, Sompurna Bhadra</i>	
SoK: Blockchain Applications in Central Bank Digital Currencies (CBDCs) .....	195
<i>Vijak Sethaput, Supachate Innet</i>	
Blockchain-Based Token Platforms for Incentivizing Citizen Science: Case of the YOMA Reward Token.....	203
<i>Sana Amjad, Mirella Bärnthaler, Chibuzor Joseph Udokwu, Stefan Craß, Ebtehal Nassar, Vinzenz Treytl</i>	
Federated Incremental Learning for Encrypted Network Traffic Classification.....	211
<i>Raffaele Carillo, Francesco Cerasuolo, Antonio Pescapè, Eirini Kanaki, Periklis Chatzimisios</i>	
Bucket: Backtrack Routing for the Lightning Network.....	218
<i>Amin Bashiri, Majid Khabbazian</i>	
Understanding Cross-Chain Message Passing Delays in Polkadot: An Experimental Perspective .....	225
<i>Akihiro Fujihara, Dušan Morhác, Kristián Košťál</i>	
Farm-To-Fork: Blockchain and IoT-Based Solution for Enhancing Food Supply Chain Safety and Transparency in Saudi Arabia.....	233
<i>Nourah Alrossais, Norah Alwohaibi, Razan Alkhaluqi, Deem Alshaye, Lama Alnahabi, Shada Alsalamah</i>	
Exploiting RedToken for Hardware-Assisted Pre-Authentication for NIST CSF 2.0 Compliance .....	240
<i>Carmelo Felicetti, Mikael Bramstedt, Domenico Saccà</i>	
Blockprint Accuracy Study.....	249
<i>Santiago Somoza, Tarun Mohandas-Daryanani, Leonardo Bautista-Gomez</i>	

SoK: The Role of Zero-Knowledge Proofs in Building Confidential and Trustworthy AI .....	257
<i>Reza Nourmohammadi, Kaiwen Zhang</i>	
Payment Channels with Proofs.....	271
<i>Chad E. Brown, Cezary Kaliszyk, Josef Urban</i>	
A Decentralized Marketplace with Self-Sovereign Identities for Telecommunication Services .....	278
<i>Jeffson C. Sousa, Bruno Evaristo, Vinicius Duarte, Mauricio Pinto, Alan Veloso, Antônio J. G. Abelém</i>	
Performance Evaluation of Decentralized Digital Identity Contracts on Ethereum-Based Blockchain Networks .....	285
<i>Jeffson C. Sousa, Bruno Evaristo, Antonio Mateus, Ismael Ávila, Alan Veloso, Antonio J. G. Abelém</i>	
A Privacy-Preserving and Secure Monitoring Framework for Permissioned Blockchain Networks .....	293
<i>Jeffson C. Sousa, Alan Veloso, Mateus Bastos, Bruno Evaristo, Antônio J. G. Abelém</i>	
VulnPatch: Multi-Agent Automated Smart Contract Vulnerability Detection, Explanation, and Mitigation Framework.....	301
<i>Md Nazmus Sakib, Latifur Khan</i>	
SoK: Unified Blockchain Data Structure .....	310
<i>Natkamon Tovanich, Madalina I. Sas, Christophe Lebrun, Munthitra Thadthapong, William J. Knottenbelt, Arnaud Gaudinat, Marco Mattavelli</i>	
CRUD-Chain: A Brownie Based Medical Records Management System.....	326
<i>Mugdha Srivastava, Abhishek Kaushik, Róisín Loughran</i>	
Covert Channels in Redactable Blockchain .....	328
<i>Jörg Keller, Osmanbey Uzunkol, Sebastian Litzinger</i>	
Model Context Contracts - MCP-Enabled Framework to Integrate LLMs with Blockchain .....	336
<i>Eranga Bandara, Sachin Shetty, Ravi Mukkamala, Ross Gore, Abdul Rahman, Peter Foytik, Safdar H. Bouk, Xueping Liang, Ng Wee Keong, Kasun De Zoysa</i>	
SRE-Llama - Fine-Tuned Meta's Llama LLM, Federated Learning, Blockchain and NFT Enabled Site Reliability Engineering(SRE) Platform for Communication and Networking Software Services .....	344
<i>Eranga Bandara, Safdar H. Bouk, Sachin Shetty, Ravi Mukkamala, Abdul Rahman, Peter Foytik, Ross Gore, Xueping Liang, Ng Wee Keong, Kasun De Zoysa</i>	
Towards Reliable Reputation and Trust Management in Swarm Computing Using SSI-Enabled Smart Contracts .....	352
<i>Giorgos Lagos, Hamza Baniata, Petar Kochovski, Amjad Ullah, Reyhaneh Rabaninejad, Yiannis Verginadis</i>	
BlockQwen: A Robust LLM Powered by Blockchain and Smart Contracts .....	362
<i>Sandeep Kalari, Ravi Mukkamala, Vikas Ashok, Stephan Olariu, Eranga Bandara, Sachin Shetty</i>	
PPDS: A Practical and Privacy-Preserving Data Sharing Model for Blockchain-Based IoT e-Health Systems Using ECC, Zero-Knowledge Proof, and Access Control.....	370
<i>Yuxiao Wu, Kenta Kawai, Yutaka Matsubara</i>	
FLChain-LLM: A Blockchain-Enabled Framework for Training Large Language Models .....	378
<i>Muhammad Asad, Safa Otoum</i>	

Could Blockchain Technology Serve as a Central Bank to Control Money Supply.....	385
<i>Abderrahmane Aya</i>	
Prompt Engineering Vs. Fine-Tuning for LLM-Based Vulnerability Detection in Solana and Algorand Smart Contracts.....	391
<i>Biagio Boi, Christian Esposito</i>	
DART: A Decentralised and Transparent Rewarding Mechanism for Federated Learning in an Aviation Data Consortium.....	399
<i>Ramon Da Gama Cordeiro, Bruno Lapre, Marcela Tuler De Oliveira</i>	
Building Petitions on Public Blockchains: From Requirements to Implementations.....	407
<i>Marco Hünsele, Kerstin Lemke-Rust</i>	
VisorFair: Bridging Reputation, Anonymity and Fairness in Decentralized Marketplaces.....	417
<i>Zahraa Alabdallah, Tassos Dimitriou</i>	
Mathematical Framework for On-Chain Management of Concentrated Liquidity Position.....	425
<i>Roman Vlasov, Vladimir Gorgadze, Artem Barger</i>	
Secure and Decentralized Data Sharing Using Blockchain and Cryptographic Access Control.....	437
<i>Adrian Alexandrescu, Delia-Elena Barbuta, Cristian Nicolae Butincu</i>	
The Evolving Landscape of Smart Contract Virtual Machines and the Introduction of Tycho VM.....	445
<i>Ilya Evdokimov, Stepan Kamentsev, Alexandr Alexeev, Kirill Mikheev, Ivan Kalinin</i>	
SPARK-IT Green: A Decentralized Blockchain-Based Platform for Sustainable Innovation, Mentorship and DAO Governance.....	451
<i>Delia-Elena Barbuta, Cristian Nicolae Butincu, Adrian Alexandrescu</i>	
A Federated Machine Learning Method for Malicious Smart Contract Detection.....	459
<i>Giovanni Ciaramella, Fabio Martinelli, Francesco Mercaldo, Paolo Mori, Antonella Santone</i>	
Accurate Credit Scoring for Blockchain Lending with Conformalized Quantile Regression.....	467
<i>Tom Azoulay, Ori Rottenstreich</i>	
Decentralized Identifiers Access Control Security Policy for Blockchain DApps and On-Chain Validation.....	473
<i>Cristian Nicolae Butincu, Adrian Alexandrescu, Delia-Elena Barbuta</i>	
Advancing DAO Adoption Through Template-Driven Design for Applied Governance in Web3.....	481
<i>Santosh Maurya, Tatsuya Sato, Manabu Hasegawa</i>	
A Proposal for a Blockchain-Based Review Platform to Prevent Review Bombing.....	489
<i>Takaaki Yanagihara</i>	
Robotic Algorithm Service Contracts to Manage and Incentivize Adaptive Behavior.....	497
<i>Sanjaya Mallikarachchi, Phanindrateja Thammi, Daniel Commey, Sandun S. Vitharana, Meghana Chintalapati, Isuru S. Godage</i>	
Real Estate Operations with Blockchain: Challenges and Implementations.....	504
<i>David El Bèze, Yam Stern, Ori Rottenstreich</i>	
Blockchain Authentication Framework with Byzantine Quorums for Robust Node Verification.....	510
<i>Fahad Rahman, Farid Nait-Abdesselam, Chafiq Titouna</i>	

Predictions in MEV-Boost Auctions with Machine Learning.....	518
<i>Bence Ladóczki</i>	
Generating Cost Optimized Smart Contracts from Deep Learning Code Using Large Language Models.....	526
<i>Sarthak Sham Nikumbh, Sandip Chakraborty, Shamik Sural</i>	
Blockchain Data Management and SmartCards .....	531
<i>Marcel Pehlke, Sophia Fedder, Clemens Schmitt, Mike Witkowski, Marc Jansen</i>	
Monitoring Real-Time Data for Smart Agriculture Using IOTA and IoT .....	537
<i>Shahid Salim, Juan M. Nunez V, Giovanni De Gasperis, Diego Valdeolmillos, Fernando De La Prieta, Sante Dino Facchini</i>	
Blockchain-Based Data Immutability and Traceability in the Era of GDPR.....	546
<i>Muhammad Bin Saif, Sara Migliorini</i>	
TwinIpfChain: Ensuring Decentralized Data Integrity in Real-Time Digital Twins for Industry 5.0 Using Blockchain and IPFS.....	554
<i>Jules Martial Yin-Belta Mbara, Fehmi Jaafar, Pierre Martin Tardif</i>	
Blockchain Epidemic Consensus for Large-Scale Networks .....	562
<i>Siamak Abdi, Giuseppe Di Fatta, Atta Badii, Giancarlo Fortino</i>	
Decentralised Insurance on the Algorand Blockchain: A Pilot Study in Automated Efficiency.....	570
<i>Lucian Duta, Bilyaminu Auwal Romo, Julie Wall, Iwa Salami</i>	
Blockchain-Based EHR, EMR, and EDR Systems: A Review of Literature and Market Analysis .....	579
<i>Sohail Abbas, Manar Abu Talib, Mohammad Adel Moufti, Ahmad Ziad Nouh Allan, Takua Mokhamed</i>	
PRO-CHAIN: A Provenance Tracking Framework Leveraging Blockchain and PUF.....	587
<i>Fiza Siyal, Fahed Alkhabbas, Antonella Guzzo, Domenico Sacca, Giancarlo Fortino</i>	
Blockchain-Based Federated Learning for the IoV: Case of Electric Vehicle Energy Management .....	595
<i>Ozan Sina Bankaoglu, Öznur Özkasap</i>	
Enhancing Consumers' Financial Accessibility with Blockchain-Powered Credit Scoring: A Decentralized Method for Approval of Personal Loans .....	603
<i>Sanjidul Alam Chowdhury, Md Hadiur Rahman Hamim, Shohan Islam Joy, Md Shakil Ahmed, Md Junayed Hossain, Ashraful Islam, Sanzar Adnan Alam</i>	
Vehicle Digital Twin Lifecycle Management Using Blockchain.....	609
<i>Tiago Silvestre, Paulo C. Bartolomeu</i>	
DeRide: An Incentivized Peer-To-Peer Ride Sharing Service Using Permissioned Blockchain Networks .....	617
<i>Shailesh Kumar Sharma, Sandip Chakraborty, Balaji Palanisamy, Shamik Sural</i>	
BitSentry: A Graph-Based Approach for Tracking Illicit Transactions in Bitcoin.....	622
<i>Vikas Chauhan, Chandresh Kumar Maurya, Subhra Mazumdar</i>	
MedSec-25: Creating an IoMT Dataset for a Healthcare IoT Environment.....	628
<i>Wesam Almobaideen, Muhammad Abdullah, Umar Alam, Syed Basit Hussain, Abderrahim Bouharrat</i>	

Blockchain-Enabled Dual-Phase Optimization Framework for P2P Energy Systems: Integrating MILP, Game Theory, and Social Incentives .....	635
<i>Fatma Nur Yasar, Öznur Özkasap</i>	
ASPARaGUS: Blockchain-Based Efficient Framework for Neural Network Poisoning Mitigation.....	641
<i>Ashley Day, Joshua Smith, Gaby G. Dagher, Tim Andersen</i>	
Benchmark of Distributed Ledger Technologies, More Precisely on Smart Contracts .....	650
<i>Yazid Maafa, Alexandre Chalal, Jiahui Xiang, Osman Salem, Ahmed Mehaoua</i>	
Demystifying the Role of Aesthetics in NFT Pricing: Model, Analysis, and Insights.....	657
<i>Ahmed Mahrous, Roberto Di Pietro</i>	
Convergence of Blockchain and Physical Unclonable Functions: An Exploratory Review.....	665
<i>Kesara Wimal, Gary Cullen, John Donovan</i>	
An Economic and Game-Theoretic Analysis of Participant Incentives in a Threshold-Based Decentralized Identity System.....	674
<i>Yash Aswani, Sandeep Srivastava, Deepshikha Agarwal</i>	
SoK: Defining Blockchain Governance - An Overview of Existing Literature Related to a New Empirical Study .....	682
<i>Hans A. Koning, Tina Van Der Linden, Jaap Gordijn</i>	
An Experimental Analysis of Blockchain Mining Using Game Theory.....	697
<i>Kakeru Hayashi, Akira Sakurai, Kazuyuki Shudo</i>	
Trustworthy Intent-Based 6G Services Marketplaces: A Decentralized Finance Perspective .....	702
<i>Lalita Jagadeesan, Ilaria Malanchini, Pranav Naik, Serge Papillon</i>	
SoK: Security and Privacy of AI Agents for Blockchain.....	708
<i>Nicolò Romandini, Carlo Mazzocca, Kai Otsuki, Rebecca Montanari</i>	
Incentive Mechanism Design Based on Blockchain and Federated Learning for Honest Participation.....	721
<i>Zeinab Shahbazi, Magnus Johnsson</i>	
A Comparative Study of Federated Learning Methods for Human Activities Recognition in Healthcare.....	729
<i>Raghu Vamsi Vajjhula, Sadi Alawadi, Prashant Goswami, Satish Kumar Buravelli</i>	
Decentralized Intelligence .....	737
<i>J. Deuja, N. Park</i>	
Sustainability Model in Blockchain Networks .....	745
<i>J. Deuja, N. Park</i>	
ColouredChain - Exploring Alternatives to a Network of Homogeneous Consortium Blockchains for Complex and Composite Decentralized Systems .....	752
<i>Rituparna Bhattacharya, Prashnatita Pal, Md. Abdul Aziz Al Aman, Sompurna Bhadra</i>	
V-ZOR: Enabling Verifiable Cross-Blockchain Communication Via Quantum-Driven ZKP Oracle Relays.....	765
<i>M. Z. Haider, Tayyaba Noreen, M. Salman, M. Dias De Assunção, Kaiwen Zhang</i>	

Unlocking the Potential of Blockchain-Based Trust Anchors Using TRAIN.....	772
<i>Isaac Henderson Johnson Jeyakumar, Sirish Kalubhai Savaliya, Alex Tweeddale, Michael Kubach</i>	
Detection of CoinJoin Transactions on the Bitcoin Blockchain: A Machine Learning Approach with Imbalanced Data.....	779
<i>Selyan Bounouar, Beomjoong Kim, Junghee Lee</i>	
Optimizing Slice Broker Revenue in 6G Via Transformer-Based Federated Learning and Malicious Fault Detection.....	786
<i>Muhidul Islam Khan</i>	
Post-Quantum Secure Health Insurance Scheme Based on Hyperledger Fabric.....	791
<i>Shanu Poddar, Sweta Mishra</i>	
Proxyless Zero Trust for Edge and IoT: Decoupling Control and Data Paths.....	799
<i>Nicola Zingirian</i>	
Integrating Blockchain and Deep Q-Learning for Adaptive, Trustworthy Cybersecurity Education.....	806
<i>Amal Douara, Adil Enaanai, Youssef Zaz</i>	
Proof of AutoML: SDN Based Secure Energy Trading with Blockchain in Disaster Case.....	812
<i>Salih Toprak, Müge Erel-özçevik</i>	
From One Bit to Meaningful Self: Recursive Identity Formation for Decentralized Digital Trust.....	818
<i>Vlado Stankovski</i>	
Universal Resolver for Trust Registries in Decentralized Identity Ecosystems.....	825
<i>Isaac Henderson Johnson Jeyakumar, Sirish Kalubhai Savaliya</i>	
SSI-Enabled Authentication and Enhanced Metadata Search in Blockchain-Based Decentralized IoT Data Platforms.....	829
<i>Luyonghe Li, Yuichiro Yasue, Yutaka Matsubara</i>	
A Framework for Embedding Generative and Agentic AI in Open Source Intelligence.....	838
<i>Eduardo Almeida Palmieri, Mohamed Chahine Ghanem, Viktor Sowinski-Mydlarz, Dipo Dunsin</i>	
Federated Learning-Enabled Adversarial Attack Detection Framework for Healthcare Laboratory Data.....	845
<i>Qurat-Ul-Ain Mastoi, Uri A Ramadhani, Abdullah Lakhan, Syed Ikram Shah, Muhammad Asfand E Yar, Syed Yaseen Shah, Syed Aziz Shah</i>	
Towards a Post-Quantum-Resistant Blockchain Ledger to Mitigate EMV Chip Cloning Attacks.....	851
<i>Basil Alothman, Khaled Allanqawi, Abdulaziz Faraj, Zainab Abouelhassan, Yousef Buhamad, Eisa Wadaan</i>	
Blockchain Interoperability for Environmental Indicators: A Rapid Review.....	857
<i>Sebastian Pandolfi, Guzmán Llambías, Laura González</i>	
Blockchain-Based Framework for Automated and Accountable Public Procurement.....	867
<i>Vehbi Neziri, Adnan Imeri</i>	
Enhancing Vehicular Network Safety Through Cluster Head-Based Edge Intelligence and Federated Learning.....	873
<i>Venkatraman Balasubramanian, Ouns Bouachir, Safa Otoum</i>	

Modelling Spatio-Temporal Progression of Cyberattacks in Data Networks .....	882
<i>Malik Shahzad Kaleem Awan, Vince Knight, Omer Rana, Pete Burnap</i>	
Secure Vision-Based Navigation for Drones in GPS-Denied Environments Using Machine Learning .....	889
<i>Mohammad Alja 'Afreh, Hikmat Adhami, Zaid Abdelqader, Kareem Subuh, Diya Muzuk, Ahmed Alnimer, Muawya Al-Dalaien, Ali Karime</i>	
Verifiable Auction Mechanisms for Material Reuse in the Built Environment .....	895
<i>Stanly Wilson, Tanapon Suwankesawong, Kwabena Adu-Duodu, Yinhao Li, Rajiv Ranjan, Omer Rana, Ellis Solaiman</i>	
Towards Quantum-Ready Blockchain Fraud Detection Via Ensemble Graph Neural Networks .....	898
<i>M. Z. Haider, Tayyaba Noreen, M. Salman</i>	
Securing Automatic Speech Recognition with Attention-Driven Adversarial Detection .....	906
<i>Muhammad Zia Ur Rehman, Muhammad Ehtisham Rashid, Murad Khan</i>	
Attention-Guided SAT Solver Approach for Robust Adversarial Defense in Machine Learning.....	912
<i>Muhammad Zia Ur Rehman, Murad Khan</i>	
A Blockchain-Orchestrated Energy Trading Framework for SAGIN-Enabled 6G Networks .....	919
<i>Ismaeel Al Ridhawi, Hasan Fayyad-Kazan</i>	
Methodology for Designing and Developing a Cybersecurity Curriculum for Secondary Schools .....	926
<i>Maha Alotaibi, Yulia Cherdantseva, Catherine Teehan</i>	
Towards a Cross-Chain Genomic Data Interoperability Framework: Secure and Compliant Federated Data Exchange Using Private Blockchains.....	935
<i>Fatimah Alakeel, Basil Alothman</i>	
Towards Blockchain-Secured Agile Validation of Cyber Resilience in Industrial Control System Defence Environments .....	940
<i>Ethar Alsharaf, Basil Alothman</i>	

**Author Index**