

Maria Cristina Alcaraz Tello

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

2,296
citations

218677

26
h-index

233421

45
g-index

80
all docs

80
docs citations

80
times ranked

2017
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | A Survey of IoT-Enabled Cyberattacks: Assessing Attack Paths to Critical Infrastructures and Services. IEEE Communications Surveys and Tutorials, 2018, 20, 3453-3495. | 39.4 | 261 |
| 2 | Key management systems for sensor networks in the context of the Internet of Things. Computers and Electrical Engineering, 2011, 37, 147-159. | 4.8 | 243 |
| 3 | Critical infrastructure protection: Requirements and challenges for the 21st century. International Journal of Critical Infrastructure Protection, 2015, 8, 53-66. | 4.6 | 183 |
| 4 | A Security Analysis for Wireless Sensor Mesh Networks in Highly Critical Systems. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2010, 40, 419-428. | 2.9 | 94 |
| 5 | OCPP Protocol: Security Threats and Challenges. IEEE Transactions on Smart Grid, 2017, 8, 2452-2459. | 9.0 | 89 |
| 6 | A Survey of Cryptographic Primitives and Implementations for Hardware-Constrained Sensor Network Nodes. Mobile Networks and Applications, 2007, 12, 231-244. | 3.3 | 85 |
| 7 | Towards Privacy Protection in Smart Grid. Wireless Personal Communications, 2013, 73, 23-50. | 2.7 | 79 |
| 8 | Current cyber-defense trends in industrial control systems. Computers and Security, 2019, 87, 101561. | 6.0 | 69 |
| 9 | Analysis of Security Threats, Requirements, Technologies and Standards in Wireless Sensor Networks. Lecture Notes in Computer Science, 2009, , 289-338. | 1.3 | 68 |
| 10 | Digital Twin: A Comprehensive Survey of Security Threats. IEEE Communications Surveys and Tutorials, 2022, 24, 1475-1503. | 39.4 | 63 |
| 11 | Wide-Area Situational Awareness for Critical Infrastructure Protection. Computer, 2013, 46, 30-37. | 1.1 | 50 |
| 12 | Security of industrial sensor network-based remote substations in the context of the Internet of Things. Ad Hoc Networks, 2013, 11, 1091-1104. | 5.5 | 48 |
| 13 | Critical Control System Protection in the 21st Century. Computer, 2013, 46, 74-83. | 1.1 | 47 |
| 14 | Cyber Stealth Attacks in Critical Information Infrastructures. IEEE Systems Journal, 2018, 12, 1778-1792. | 4.6 | 44 |
| 15 | Cloud-Assisted Dynamic Resilience for Cyber-Physical Control Systems. IEEE Wireless Communications, 2018, 25, 76-82. | 9.0 | 42 |
| 16 | Selecting key management schemes for WSN applications. Computers and Security, 2012, 31, 956-966. | 6.0 | 36 |
| 17 | A Resilient Architecture for the Smart Grid. IEEE Transactions on Industrial Informatics, 2018, 14, 3745-3753. | 11.3 | 36 |
| 18 | Analysis of requirements for critical control systems. International Journal of Critical Infrastructure Protection, 2012, 5, 137-145. | 4.6 | 35 |

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|----|--|-----|-----------|
| 19 | Policy enforcement system for secure interoperable control in distributed Smart Grid systems. Journal of Network and Computer Applications, 2016, 59, 301-314. | 9.1 | 35 |
| 20 | Digital Twins for Intelligent Authorization in the B5G-Enabled Smart Grid. IEEE Wireless Communications, 2021, 28, 48-55. | 9.0 | 35 |
| 21 | Smart Grid Privacy: Issues and Solutions. , 2012, , . | | 34 |
| 22 | Analysis of Intrusion Detection Systems in Industrial Ecosystems. , 2017, , . | | 33 |
| 23 | The role of Wireless Sensor Networks in the area of Critical Information Infrastructure Protection. Information Security Technical Report, 2007, 12, 24-31. | 1.3 | 32 |
| 24 | Recommender system for privacy-preserving solutions in smart metering. Pervasive and Mobile Computing, 2017, 41, 205-218. | 3.3 | 31 |
| 25 | WASAM: A dynamic wide-area situational awareness model for critical domains in Smart Grids. Future Generation Computer Systems, 2014, 30, 146-154. | 7.5 | 30 |
| 26 | Blockchain-assisted access for federated Smart Grid domains: Coupling and features. Journal of Parallel and Distributed Computing, 2020, 144, 124-135. | 4.1 | 29 |
| 27 | Security Aspects of SCADA and DCS Environments. Lecture Notes in Computer Science, 2012, , 120-149. | 1.3 | 27 |
| 28 | Smart control of operational threats in control substations. Computers and Security, 2013, 38, 14-27. | 6.0 | 27 |
| 29 | Managing Incidents in Smart Grids à la Cloud. , 2011, , . | | 24 |
| 30 | An Early Warning System Based on Reputation for Energy Control Systems. IEEE Transactions on Smart Grid, 2011, 2, 827-834. | 9.0 | 24 |
| 31 | Context-Awareness Using Anomaly-Based Detectors for Smart Grid Domains. Lecture Notes in Computer Science, 2015, , 17-34. | 1.3 | 24 |
| 32 | Addressing Security in OCPP: Protection Against Man-in-the-Middle Attacks. , 2018, , . | | 24 |
| 33 | Covert Channels-Based Stealth Attacks in Industry 4.0. IEEE Systems Journal, 2019, 13, 3980-3988. | 4.6 | 24 |
| 34 | Secure SCADA framework for the protection of energy control systems. Concurrency Computation Practice and Experience, 2011, 23, 1431-1442. | 2.2 | 20 |
| 35 | Resilient interconnection in cyber-physical control systems. Computers and Security, 2017, 71, 2-14. | 6.0 | 19 |
| 36 | Recovery of Structural Controllability for Control Systems. Lecture Notes in Computer Science, 2014, , 47-63. | 1.3 | 18 |

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|----|---|-----|-----------|
| 37 | Preventing Advanced Persistent Threats in Complex Control Networks. Lecture Notes in Computer Science, 2017, , 402-418. | 1.3 | 15 |
| 38 | Applicability of Public Key Infrastructures in Wireless Sensor Networks. Lecture Notes in Computer Science, 2007, , 313-320. | 1.3 | 15 |
| 39 | Diagnosis mechanism for accurate monitoring in critical infrastructure protection. Computer Standards and Interfaces, 2014, 36, 501-512. | 5.4 | 14 |
| 40 | Structural Controllability of Networks for Non-interactive Adversarial Vertex Removal. Lecture Notes in Computer Science, 2013, , 120-132. | 1.3 | 14 |
| 41 | Tracking APTs in industrial ecosystems: A proof of concept. Journal of Computer Security, 2019, 27, 521-546. | 0.8 | 12 |
| 42 | Applying Key Infrastructures for Sensor Networks in CIP/CIIP Scenarios. Lecture Notes in Computer Science, 2006, , 166-178. | 1.3 | 11 |
| 43 | Tracking Advanced Persistent Threats in Critical Infrastructures Through Opinion Dynamics. Lecture Notes in Computer Science, 2018, , 555-574. | 1.3 | 10 |
| 44 | Stakeholder perspectives and requirements on cybersecurity in Europe. Journal of Information Security and Applications, 2021, 61, 102916. | 2.5 | 10 |
| 45 | Towards Automatic Critical Infrastructure Protection through Machine Learning. Lecture Notes in Computer Science, 2013, , 197-203. | 1.3 | 10 |
| 46 | Classifying resilience approaches for protecting smart grids against cyber threats. International Journal of Information Security, 2022, 21, 1189-1210. | 3.4 | 10 |
| 47 | A Cyber-Physical Systems-Based Checkpoint Model for Structural Controllability. IEEE Systems Journal, 2018, 12, 3543-3554. | 4.6 | 8 |
| 48 | Secure Interconnection of IT-OT Networks in Industry 4.0. Advanced Sciences and Technologies for Security Applications, 2019, , 201-217. | 0.5 | 8 |
| 49 | Secure Interoperability in Cyber-Physical Systems. Advances in Information Security, Privacy, and Ethics Book Series, 0, , 137-158. | 0.5 | 8 |
| 50 | A three-stage analysis of IDS for critical infrastructures. Computers and Security, 2015, 55, 235-250. | 6.0 | 7 |
| 51 | SenseKey – Simplifying the Selection of Key Management Schemes for Sensor Networks. , 2011, , . | | 6 |
| 52 | Cyber-Physical Systems for Wide-Area Situational Awareness. , 2017, , 305-317. | | 6 |
| 53 | Enhancing Security and Dependability of Industrial Networks with Opinion Dynamics. Lecture Notes in Computer Science, 2019, , 263-280. | 1.3 | 6 |
| 54 | Multi-round Attacks on Structural Controllability Properties for Non-complete Random Graphs. Lecture Notes in Computer Science, 2015, , 140-151. | 1.3 | 6 |

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|----|---|------|-----------|
| 55 | Safeguarding Structural Controllability in Cyber-Physical Control Systems. Lecture Notes in Computer Science, 2016, , 471-489. | 1.3 | 6 |
| 56 | Guest Editorial: Special Section on Security and Privacy in Industry 4.0. IEEE Transactions on Industrial Informatics, 2020, 16, 6530-6531. | 11.3 | 5 |
| 57 | Game Theory-Based Approach for Defense Against APTs. Lecture Notes in Computer Science, 2020, , 297-320. | 1.3 | 5 |
| 58 | Risk Assessment for IoT-Enabled Cyber-Physical Systems. Learning and Analytics in Intelligent Systems, 2021, , 157-173. | 0.6 | 4 |
| 59 | Secure Interoperability in Cyber-Physical Systems. , 2020, , 521-542. | | 4 |
| 60 | Early Warning System for Cascading Effect Control in Energy Control Systems. Lecture Notes in Computer Science, 2011, , 55-66. | 1.3 | 3 |
| 61 | On the Protection and Technologies of Critical Information Infrastructures. Lecture Notes in Computer Science, 2007, , 160-182. | 1.3 | 3 |
| 62 | Dynamic Restoration in Interconnected RBAC-based Cyber-physical Control Systems. , 2016, , . | | 3 |
| 63 | Distributed Detection of APTs: Consensus vs. Clustering. Lecture Notes in Computer Science, 2020, , 174-192. | 1.3 | 3 |
| 64 | Selecting Privacy Solutions to Prioritise Control in Smart Metering Systems. Lecture Notes in Computer Science, 2017, , 176-188. | 1.3 | 2 |
| 65 | Resilient industrial control systems based on multiple redundancy. International Journal of Critical Infrastructures, 2017, 13, 278. | 0.2 | 2 |
| 66 | Addressing Situational Awareness in Critical Domains of a Smart Grid. Lecture Notes in Computer Science, 2012, , 58-71. | 1.3 | 2 |
| 67 | PDR: A Prevention, Detection and Response Mechanism for Anomalies in Energy Control Systems. Lecture Notes in Computer Science, 2013, , 22-33. | 1.3 | 2 |
| 68 | Awareness and reaction strategies for critical infrastructure protection. Computers and Electrical Engineering, 2015, 47, 299-317. | 4.8 | 1 |
| 69 | The Role of Software-Defined Networks for Practical Learning in the Engineering Areas. Proceedings (mdpi), 2018, 2, 1352. | 0.2 | 1 |
| 70 | Guest Editorsâ€™ Introduction to the Special Issue on â€œModern trends in applied security: Architectures, implementations and applicationsâ€• Computers and Electrical Engineering, 2011, 37, 127-128. | 4.8 | 0 |
| 71 | Guest Editorial Special Issue on Secure Embedded IoT Devices for Resilient Critical Infrastructures. IEEE Internet of Things Journal, 2019, 6, 7988-7991. | 8.7 | 0 |
| 72 | Situational Awareness for CPS. , 2021, , 1-3. | | 0 |

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|----|---|-----|-----------|
| 73 | Resilient industrial control systems based on multiple redundancy. International Journal of Critical Infrastructures, 2017, 13, 278. | 0.2 | 0 |
| 74 | THE ROLE OF TEST-BEDS IN TEACHING AND LEARNING PROCESSES IN COMPUTER SCIENCE. , 2018, , . | | 0 |
| 75 | SealedGRID: A Secure Interconnection of Technologies for Smart Grid Applications. Lecture Notes in Computer Science, 2020, , 169-175. | 1.3 | 0 |
| 76 | REDUCING INEQUALITIES IN MASTER DEGREE STUDENTS DUE TO SKEWED CURRICULA. , 2020, , . | | 0 |