

Shehzad Ashraf Chaudhry

List of Publications by Year in descending order

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130
papers

3,872
citations

94433

37
h-index

149698

56
g-index

132
all docs

132
docs citations

132
times ranked

2178
citing authors

#	ARTICLE	IF	CITATIONS
1	An elliptic curve cryptography based lightweight authentication scheme for smart grid communication. <i>Future Generation Computer Systems</i> , 2018, 81, 557-565.	7.5	208
2	Sixth Generation (6G) Wireless Networks: Vision, Research Activities, Challenges and Potential Solutions. <i>Symmetry</i> , 2020, 12, 676.	2.2	207
3	A lightweight message authentication scheme for Smart Grid communications in power sector. <i>Computers and Electrical Engineering</i> , 2016, 52, 114-124.	4.8	155
4	Securing Smart City Surveillance: A Lightweight Authentication Mechanism for Unmanned Vehicles. <i>IEEE Access</i> , 2020, 8, 43711-43724.	4.2	120
5	Efficient end-to-end authentication protocol for wearable health monitoring systems. <i>Computers and Electrical Engineering</i> , 2017, 63, 182-195.	4.8	119
6	An improved and provably secure privacy preserving authentication protocol for SIP. <i>Peer-to-Peer Networking and Applications</i> , 2017, 10, 1-15.	3.9	91
7	A secure and efficient authenticated encryption for electronic payment systems using elliptic curve cryptography. <i>Electronic Commerce Research</i> , 2016, 16, 113-139.	5.0	82
8	A Secure and Reliable Device Access Control Scheme for IoT Based Sensor Cloud Systems. <i>IEEE Access</i> , 2020, 8, 139244-139254.	4.2	81
9	Pairing based anonymous and secure key agreement protocol for smart grid edge computing infrastructure. <i>Future Generation Computer Systems</i> , 2018, 88, 491-500.	7.5	78
10	An enhanced privacy preserving remote user authentication scheme with provable security. <i>Security and Communication Networks</i> , 2015, 8, 3782-3795.	1.5	75
11	A lightweight anonymous authentication scheme for consumer roaming in ubiquitous networks with provable security. <i>International Journal of Communication Systems</i> , 2017, 30, e3019.	2.5	75
12	Cryptanalysis and Improvement of an Improved Two Factor Authentication Protocol for Telecare Medical Information Systems. <i>Journal of Medical Systems</i> , 2015, 39, 66.	3.6	74
13	Security and key management in IoT-based wireless sensor networks: An authentication protocol using symmetric key. <i>International Journal of Communication Systems</i> , 2019, 32, e4139.	2.5	74
14	Machine Learning Algorithms for Smart Data Analysis in Internet of Things Environment: Taxonomies and Research Trends. <i>Symmetry</i> , 2020, 12, 88.	2.2	72
15	Securing IoT-Based RFID Systems: A Robust Authentication Protocol Using Symmetric Cryptography. <i>Sensors</i> , 2019, 19, 4752.	3.8	70
16	An improved smart card based authentication scheme for session initiation protocol. <i>Peer-to-Peer Networking and Applications</i> , 2017, 10, 92-105.	3.9	68
17	Securing Demand Response Management: A Certificate-Based Access Control in Smart Grid Edge Computing Infrastructure. <i>IEEE Access</i> , 2020, 8, 101235-101243.	4.2	68
18	Correcting design flaws: An improved and cloud assisted key agreement scheme in cyber physical systems. <i>Computer Communications</i> , 2020, 153, 527-537.	5.1	66

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19	An Improved and Secure Biometric Authentication Scheme for Telecare Medicine Information Systems Based on Elliptic Curve Cryptography. <i>Journal of Medical Systems</i> , 2015, 39, 175.	3.6	62
20	A single round-trip SIP authentication scheme for Voice over Internet Protocol using smart card. <i>Multimedia Tools and Applications</i> , 2015, 74, 3967-3984.	3.9	58
21	Amassing the Security: An ECC-Based Authentication Scheme for Internet of Drones. <i>IEEE Systems Journal</i> , 2021, 15, 4431-4438.	4.6	57
22	A provably secure and efficient authenticated key agreement scheme for Energy Internet based Vehicle-to-Grid technology framework. <i>IEEE Transactions on Industry Applications</i> , 2020, , 1-1.	4.9	54
23	Comments on "Biometrics-Based Privacy-Preserving User Authentication Scheme for Cloud-Based Industrial Internet of Things Deployment". <i>IEEE Internet of Things Journal</i> , 2019, 6, 10936-10940.	8.7	50
24	An improved anonymous authentication scheme for distributed mobile cloud computing services. <i>Cluster Computing</i> , 2019, 22, 1595-1609.	5.0	49
25	A robust authentication and access control protocol for securing wireless healthcare sensor networks. <i>Journal of Information Security and Applications</i> , 2020, 52, 102502.	2.5	49
26	Correcting "PALK: Password-based anonymous lightweight key agreement framework for smart grid". <i>International Journal of Electrical Power and Energy Systems</i> , 2021, 125, 106529.	5.5	47
27	An Improved Remote User Authentication Scheme Using Elliptic Curve Cryptography. <i>Wireless Personal Communications</i> , 2017, 96, 5355-5373.	2.7	46
28	A secure biometric based multi-server authentication scheme for social multimedia networks. <i>Multimedia Tools and Applications</i> , 2016, 75, 12705-12725.	3.9	45
29	An enhanced anonymous identity-based key agreement protocol for smart grid advanced metering infrastructure. <i>International Journal of Communication Systems</i> , 2019, 32, e4137.	2.5	44
30	A Provably Secure RFID Authentication Protocol Based on Elliptic Curve for Healthcare Environments. <i>Journal of Medical Systems</i> , 2016, 40, 165.	3.6	42
31	An efficient and anonymous multi-server authenticated key agreement based on chaotic map without engaging Registration Centre. <i>Journal of Supercomputing</i> , 2016, 72, 1623-1644.	3.6	42
32	A clogging resistant secure authentication scheme for fog computing services. <i>Computer Networks</i> , 2021, 185, 107731.	5.1	42
33	A secure authentication scheme for session initiation protocol by using ECC on the basis of the Tang and Liu scheme. <i>Security and Communication Networks</i> , 2014, 7, 1210-1218.	1.5	40
34	GCACS-IoD: A certificate based generic access control scheme for Internet of drones. <i>Computer Networks</i> , 2021, 191, 107999.	5.1	40
35	A secure and provable multi-server authenticated key agreement for TMIS based on Amin et al. scheme. <i>Multimedia Tools and Applications</i> , 2017, 76, 16463-16489.	3.9	39
36	An improved and robust biometrics-based three factor authentication scheme for multiserver environments. <i>Journal of Supercomputing</i> , 2018, 74, 3504-3520.	3.6	39

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37	An enhanced lightweight anonymous biometric based authentication scheme for TMIS. Multimedia Tools and Applications, 2018, 77, 5503-5524.	3.9	39
38	An efficient signcryption scheme with forward secrecy and public verifiability based on hyper elliptic curve cryptography. Multimedia Tools and Applications, 2015, 74, 1711-1723.	3.9	38
39	A Multiserver Biometric Authentication Scheme for TMIS using Elliptic Curve Cryptography. Journal of Medical Systems, 2016, 40, 230.	3.6	35
40	A robust ElGamal-based password authentication protocol using smart card for client-server communication. International Journal of Communication Systems, 2017, 30, e3242.	2.5	35
41	A scalable and secure RFID mutual authentication protocol using ECC for Internet of Things. International Journal of Communication Systems, 2020, 33, e3906.	2.5	35
42	Rotating behind Privacy: An Improved Lightweight Authentication Scheme for Cloud-based IoT Environment. ACM Transactions on Internet Technology, 2021, 21, 1-19.	4.4	35
43	Secure Remote User Mutual Authentication Scheme with Key Agreement for Cloud Environment. Mobile Networks and Applications, 2019, 24, 1046-1062.	3.3	33
44	A Novel Pairing-Free Lightweight Authentication Protocol for Mobile Cloud Computing Framework. IEEE Systems Journal, 2021, 15, 3664-3672.	4.6	33
45	ITSSAKA-MS: An Improved Three-Factor Symmetric-Key Based Secure AKA Scheme for Multi-Server Environments. IEEE Access, 2020, 8, 107993-108003.	4.2	32
46	A secure and lightweight authentication scheme for next generation IoT infrastructure. Computer Communications, 2021, 165, 85-96.	5.1	28
47	An enhanced scheme for mutual authentication for healthcare services. Digital Communications and Networks, 2022, 8, 150-161.	5.0	28
48	Designing secure and lightweight user access to drone for smart city surveillance. Computer Standards and Interfaces, 2022, 80, 103566.	5.4	28
49	An anonymous device to device access control based on secure certificate for internet of medical things systems. Sustainable Cities and Society, 2021, 75, 103322.	10.4	27
50	A Robust and Efficient Privacy Aware Handover Authentication Scheme for Wireless Networks. Wireless Personal Communications, 2017, 93, 311-335.	2.7	26
51	An Enhanced and Provably Secure Chaotic Map-Based Authenticated Key Agreement in Multi-Server Architecture. Arabian Journal for Science and Engineering, 2018, 43, 811-828.	3.0	26
52	PFLUA-DIoT: A Pairing Free Lightweight and Unlinkable User Access Control Scheme for Distributed IoT Environments. IEEE Systems Journal, 2022, 16, 309-316.	4.6	26
53	A Lightweight Authentication Scheme for 6G-IoT Enabled Maritime Transport System. IEEE Transactions on Intelligent Transportation Systems, 2021, , 1-10.	8.0	26
54	REAS-TMIS: Resource-Efficient Authentication Scheme for Telecare Medical Information System. IEEE Access, 2022, 10, 23008-23021.	4.2	23

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55	A Privacy Enhanced Authentication Scheme for Securing Smart Grid Infrastructure. IEEE Transactions on Industrial Informatics, 2022, 18, 5000-5006.	11.3	22
56	A Privacy Preserving Authentication Scheme for Roaming in IoT-Based Wireless Mobile Networks. Symmetry, 2020, 12, 287.	2.2	21
57	A Robust Access Control Protocol for the Smart Grid Systems. IEEE Internet of Things Journal, 2022, 9, 6855-6865.	8.7	21
58	A provably secure anonymous authentication scheme for Session Initiation Protocol. Security and Communication Networks, 2016, 9, 5016-5027.	1.5	20
59	An Efficient Password-Based Authenticated Key Exchange Protocol with Provable Security for Mobile Client-Client Networks. Wireless Personal Communications, 2016, 88, 337-356.	2.7	20
60	A privacy preserving authentication scheme for roaming in ubiquitous networks. Cluster Computing, 2017, 20, 1223-1236.	5.0	20
61	A secure blockchain-oriented data delivery and collection scheme for 5G-enabled IoD environment. Computer Networks, 2021, 195, 108219.	5.1	20
62	An improved and secure chaotic map based authenticated key agreement in multi-server architecture. Multimedia Tools and Applications, 2018, 77, 1167-1204.	3.9	19
63	An efficient key agreement with rekeying for secured body sensor networks. , 2012, , .		18
64	A provable and secure mobile user authentication scheme for mobile cloud computing services. International Journal of Communication Systems, 2019, 32, e3980.	2.5	18
65	An Anonymous Device to Device Authentication Protocol Using ECC and Self Certified Public Keys Usable in Internet of Things Based Autonomous Devices. Electronics (Switzerland), 2020, 9, 520.	3.1	18
66	ARAP-SG: Anonymous and Reliable Authentication Protocol for Smart Grids. IEEE Access, 2021, 9, 143366-143377.	4.2	18
67	An authenticated key agreement with rekeying for secured body sensor networks based on hybrid cryptosystem. , 2012, , .		17
68	Designing an Efficient and Secure Message Exchange Protocol for Internet of Vehicles. Security and Communication Networks, 2021, 2021, 1-9.	1.5	17
69	Cryptanalysis and Improvement of "A Secure Password Authentication Mechanism for Seamless Handover in Proxy Mobile IPv6 Networks". PLoS ONE, 2015, 10, e0142716.	2.5	17
70	An Efficient and Provably Secure Certificateless Protocol for Industrial Internet of Things. IEEE Transactions on Industrial Informatics, 2022, 18, 8039-8046.	11.3	17
71	An improved lightweight multiserver authentication scheme. International Journal of Communication Systems, 2017, 30, e3351.	2.5	16
72	A Secure and Lightweight Drones-Access Protocol for Smart City Surveillance. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 19634-19643.	8.0	16

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73	Comment on "Robust and efficient password authenticated key agreement with user anonymity for session initiation protocol-based communications". IET Communications, 2015, 9, 1034-1034.	2.2	15
74	Fuzzy-in-the-Loop-Driven Low-Cost and Secure Biometric User Access to Server. IEEE Transactions on Reliability, 2021, 70, 1014-1025.	4.6	15
75	DAWM: Cost-Aware Asset Claim Analysis Approach on Big Data Analytic Computation Model for Cloud Data Centre. Security and Communication Networks, 2021, 2021, 1-16.	1.5	15
76	PASKE-IoD: Privacy-Protecting Authenticated Key Establishment for Internet of Drones. IEEE Access, 2021, 9, 145683-145698.	4.2	15
77	A resource friendly authentication scheme for space-air-ground-sea integrated Maritime Communication Network. Ocean Engineering, 2022, 250, 110894.	4.3	15
78	A provably secure and lightweight mutual authentication protocol in fog-enabled social Internet of vehicles. International Journal of Distributed Sensor Networks, 2022, 18, 155013292211043.	2.2	14
79	An anonymous and provably secure biometric-based authentication scheme using chaotic maps for accessing medical drop box data. Journal of Supercomputing, 2018, 74, 3685-3703.	3.6	12
80	An ameliorated two-factor anonymous key exchange authentication protocol for mobile client-server environment. International Journal of Communication Systems, 2018, 31, e3814.	2.5	12
81	A secure and improved multi server authentication protocol using fuzzy commitment. Multimedia Tools and Applications, 2021, 80, 16907-16931.	3.9	12
82	Comments on "A Secure, Privacy-Preserving, and Lightweight Authentication Scheme for VANETs". IEEE Sensors Journal, 2022, 22, 13763-13766.	4.7	12
83	Efficient signcryption schemes based on Hyperelliptic curve cryptosystem. , 2011, , .		11
84	An Improved SIP Authenticated Key Agreement Based on Dongqing et al.. Wireless Personal Communications, 2020, 110, 2087-2107.	2.7	11
85	An Anonymous and Efficient Multiserver Authenticated Key Agreement With Offline Registration Centre. IEEE Systems Journal, 2019, 13, 436-446.	4.6	10
86	A Physical Capture Resistant Authentication Scheme for the Internet of Drones. IEEE Communications Standards Magazine, 2021, 5, 62-67.	4.9	10
87	Comments on "A privacy preserving three-factor authentication protocol for e-health clouds". Journal of Supercomputing, 2017, 73, 1504-1508.	3.6	9
88	Adaptive Fault-Tolerant System and Optimal Power Allocation for Smart Vehicles in Smart Cities Using Controller Area Network. Security and Communication Networks, 2021, 2021, 1-13.	1.5	9
89	Attacks and Solutions for a Two-Factor Authentication Protocol for Wireless Body Area Networks. Security and Communication Networks, 2021, 2021, 1-12.	1.5	9
90	TC-PSLAP: Temporal Credential-Based Provably Secure and Lightweight Authentication Protocol for IoT-Enabled Drone Environments. Security and Communication Networks, 2021, 2021, 1-10.	1.5	9

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91	An Improved SIP Authentication Scheme Based on Server-Oriented Biometric Verification. <i>Wireless Personal Communications</i> , 2017, 97, 2145-2166.	2.7	8
92	ILAS-IoT: An improved and lightweight authentication scheme for IoT deployment. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2022, 13, 5123-5135.	4.9	8
93	A seamless anonymous authentication protocol for mobile edge computing infrastructure. <i>Computer Communications</i> , 2022, 186, 12-21.	5.1	8
94	A Secure Authentication Scheme for Session Initiation Protocol Based on Elliptic Curve Cryptography. , 2015, , .		7
95	A lightweight and secure two factor anonymous authentication protocol for Global Mobility Networks. <i>PLoS ONE</i> , 2018, 13, e0196061.	2.5	7
96	An improved Multi-server Authentication Scheme for Distributed Mobile Cloud Computing Services. <i>KSII Transactions on Internet and Information Systems</i> , 2016, 10, .	0.3	7
97	A low-cost privacy preserving user access in mobile edge computing framework. <i>Computers and Electrical Engineering</i> , 2022, 98, 107692.	4.8	7
98	Analyzing performance of ad hoc network mobility models in a peer-to-peer network application over mobile ad hoc network. , 2010, , .		6
99	A secure demand response management authentication scheme for smart grid. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 48, 101571.	2.7	6
100	An efficient and anonymous Chaotic Map based authenticated key agreement for multi-server architecture. <i>KSII Transactions on Internet and Information Systems</i> , 2016, 10, .	0.3	6
101	A Resource-Friendly Authentication Protocol for UAV-Based Massive Crowd Management Systems. <i>Security and Communication Networks</i> , 2021, 2021, 1-12.	1.5	6
102	On the Security of an Authentication Scheme for Smart Metering Infrastructure. , 2020, , .		6
103	A Lightweight and Robust User Authentication Protocol with User Anonymity for IoT-Based Healthcare. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2022, 131, 307-329.	1.1	5
104	Correctness of an Authentication Scheme for Managing Demand Response in Smart Grid. , 2020, , 223-231.		5
105	An improved one-to-many authentication scheme based on bilinear pairings with provable security for mobile pay-TV systems. <i>Multimedia Tools and Applications</i> , 2017, 76, 14225-14245.	3.9	4
106	Symmetric-Key Multi-Factor Biometric Authentication Scheme. , 2019, , .		4
107	Towards Secure IoT-Based Payments by Extension of Payment Card Industry Data Security Standard (PCI) Tj ETQq1 _{1.2} 1.0.7843 ₄ 14 rgBT /Ov		4
108	An Improved Authentication Scheme for Digital Rights Management System. <i>Wireless Communications and Mobile Computing</i> , 2022, 2022, 1-11.	1.2	4

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109	Security, Trust and Privacy for Cloud, Fog and Internet of Things. Security and Communication Networks, 2022, 2022, 1-2.	1.5	4
110	SKIA-SH: A Symmetric Key-Based Improved Lightweight Authentication Scheme for Smart Homes. Wireless Communications and Mobile Computing, 2022, 2022, 1-12.	1.2	4
111	RapidAuth: Fast Authentication for Sustainable IoT. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 82-95.	0.3	3
112	An Improved Authentication Scheme for Electronic Payment Systems in Global Mobility Networks. Information Technology and Control, 2015, 44, 387-403.	2.1	3
113	Efficient Neighbour Feedback Based Trusted Multi Authenticated Node Routing Model for Secure Data Transmission. Sustainability, 2021, 13, 13296.	3.2	3
114	Performance analysis of secure communications over correlated slow-fading additive white Gaussian noise channels. International Journal of Communication Systems, 2019, 32, e4022.	2.5	2
115	Comment on "ElGamal cryptosystem-based secure authentication system for cloud-based IoT applications". IET Networks, 2021, 10, 244-245.	1.8	2
116	Cryptanalysis and improvement of a Multi-server Authentication protocol by Lu et al.. KSII Transactions on Internet and Information Systems, 2018, 12, .	0.3	2
117	Analyzing and evaluating the energy efficiency based on multi-5G small cells with a mm-waves in the next generation cellular networks. International Journal of Electrical and Computer Engineering, 2020, 10, 3492.	0.7	2
118	An Identity-Based Encryption Method for SDN-Enabled Source Routing Systems. Security and Communication Networks, 2022, 2022, 1-7.	1.5	2
119	Comments and improvements of "HOTA: Handover optimized ticket-based authentication in network-based mobility management", 2017, , .		1
120	A secure mutual authenticated key agreement of user with multiple servers for critical systems. Multimedia Tools and Applications, 2018, 77, 11067-11099.	3.9	1
121	An efficient and secure design of multi-server authenticated key agreement protocol. Journal of Supercomputing, 2018, 74, 4771-4797.	3.6	1
122	Guest editorial of the special issue "remote sensing in water management and hydrology". European Journal of Remote Sensing, 2021, 54, 1-5.	3.5	1
123	Cryptanalysis and improvement of a Multi-Server Authenticated Key Agreement by Chen and Lee's Scheme. Information Technology and Control, 2018, 47, .	2.1	1
124	Security Vulnerabilities and Improvements of SPAM: a Secure Password Authentication Mechanism for Seamless Handover in Proxy Mobile IPv6 Networks. Information Technology and Control, 2017, 46, .	2.1	0
125	An Improved Biometric Multi-Server Authentication Scheme for Chang et al.'s Protocol. Information Technology and Control, 2019, 48, 211-224.	2.1	0
126	Comment on "SFVCC: Chaotic map-based security framework for vehicular cloud computing". IET Intelligent Transport Systems, 2020, 14, 1723-1723.	3.0	0

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127	Further comments on "SFVCC: Chaotic map-based security framework for vehicular cloud computing". IET Intelligent Transport Systems, 2020, 14, 1725-1725.	3.0	0
128	Guest Editorial: Introduction to the special section on security and privacy in the big data era (VSI-spb). Computers and Electrical Engineering, 2022, 99, 107786.	4.8	0
129	Drone-based secure communication model for goods collection and delivery: a strategic management perspective. Journal for International Business and Entrepreneurship Development, 2021, 13, 350.	0.4	0
130	Security Hardened and Privacy Preserved Vehicle-to-Everything (V2X) Communication. Security and Communication Networks, 2022, 2022, 1-4.	1.5	0