

Vinod Kumar

List of Publications by Year in descending order

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104
papers

2,527
citations

201674

27
h-index

223800

46
g-index

111
all docs

111
docs citations

111
times ranked

2049
citing authors

#	ARTICLE	IF	CITATIONS
1	SVM-Based Characterization of Liver Ultrasound Images Using Wavelet Packet Texture Descriptors. Journal of Digital Imaging, 2013, 26, 530-543.	2.9	149
2	Nonsampled shearlet based CT and MR medical image fusion using biologically inspired spiking neural network. Biomedical Signal Processing and Control, 2015, 18, 91-101.	5.7	124
3	Detection of myocardial infarction in 12 lead ECG using support vector machine. Applied Soft Computing Journal, 2018, 64, 138-147.	7.2	119
4	Cognitive Behavior Evaluation Based on Physiological Parameters among Young Healthy Subjects with Yoga as Intervention. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-13.	1.3	100
5	An assessment of data formats for layered manufacturing. Advances in Engineering Software, 1997, 28, 151-164.	3.8	99
6	ANN-based QRS-complex analysis of ECG. Journal of Medical Engineering and Technology, 1998, 22, 160-167.	1.4	97
7	An efficient new method for the detection of QRS in electrocardiogram. Computers and Electrical Engineering, 2014, 40, 1717-1730.	4.8	86
8	CT and MR Image Fusion Scheme in Nonsampled Contourlet Transform Domain. Journal of Digital Imaging, 2014, 27, 407-418.	2.9	83
9	Feature-Motivated Simplified Adaptive PCNN-Based Medical Image Fusion Algorithm in NSST Domain. Journal of Digital Imaging, 2016, 29, 73-85.	2.9	83
10	Neural Network Ensemble Based CAD System for Focal Liver Lesions from B-Mode Ultrasound. Journal of Digital Imaging, 2014, 27, 520-537.	2.9	75
11	Neural network based focal liver lesion diagnosis using ultrasound images. Computerized Medical Imaging and Graphics, 2011, 35, 315-323.	5.8	71
12	CSEF: Cloud-Based Secure and Efficient Framework for Smart Medical System Using ECC. IEEE Access, 2020, 8, 107838-107852.	4.2	63
13	A Computationally Efficient and Scalable Key Management Scheme for Access Control of Media Delivery in Digital Pay-TV Systems. Multimedia Tools and Applications, 2021, 80, 1-34.	3.9	61
14	An Efficient Mutual Authentication Framework for Healthcare System in Cloud Computing. Journal of Medical Systems, 2018, 42, 142.	3.6	59
15	Improved modified AZTEC technique for ECG data compression: Effect of length of parabolic filter on reconstructed signal. Computers and Electrical Engineering, 2005, 31, 334-344.	4.8	57
16	PALK: Password-based anonymous lightweight key agreement framework for smart grid. International Journal of Electrical Power and Energy Systems, 2020, 121, 106121.	5.5	56
17	Multimodality medical image fusion based on new features in NSST domain. Biomedical Engineering Letters, 2014, 4, 414-424.	4.1	52
18	LAKAF: Lightweight authentication and key agreement framework for smart grid network. Journal of Systems Architecture, 2021, 116, 102053.	4.3	50

#	ARTICLE	IF	CITATIONS
19	RSEAP: RFID based secure and efficient authentication protocol for vehicular cloud computing. Vehicular Communications, 2020, 22, 100213.	4.0	49
20	A secure elliptic curve cryptography based mutual authentication protocol for cloud-assisted TMIS. Telematics and Informatics, 2019, 38, 100-117.	5.8	47
21	A comparative study of computer-aided classification systems for focal hepatic lesions from B-mode ultrasound. Journal of Medical Engineering and Technology, 2013, 37, 292-306.	1.4	46
22	SEBAP: A secure and efficient biometric-assisted authentication protocol using ECC for vehicular cloud computing. International Journal of Communication Systems, 2021, 34, e4103.	2.5	39
23	ESEAP: ECC based secure and efficient mutual authentication protocol using smart card. Journal of Information Security and Applications, 2020, 51, 102443.	2.5	36
24	SVM-Based CAC System for B-Mode Kidney Ultrasound Images. Journal of Digital Imaging, 2015, 28, 448-458.	2.9	33
25	Artificial neural network based wave complex detection in electrocardiograms. International Journal of Systems Science, 1997, 28, 125-132.	5.5	30
26	Multiclass Brain Tumor Classification Using GA-SVM. , 2011, , .		30
27	Classification of brain tumors using PCA-ANN. , 2011, , .		30
28	Prediction of cirrhosis from liver ultrasound B-mode images based on Laws' masks analysis. , 2011, , .		26
29	Texture analysis based segmentation and classification of oral cancer lesions in color images using ANN. , 2013, , .		25
30	Prediction of Cirrhosis Based on Singular Value Decomposition of Gray Level Co-occurrence Matrix and a Neural Network Classifier. , 2011, , .		24
31	A computationally efficient centralized group key distribution protocol for secure multicast communications based upon RSA public key cryptosystem. Journal of King Saud University - Computer and Information Sciences, 2020, 32, 1081-1094.	3.9	24
32	A secure user authentication protocol using elliptic curve cryptography. Journal of Discrete Mathematical Sciences and Cryptography, 2019, 22, 521-530.	0.8	22
33	Integration of Next Generation IIoT with Blockchain for the Development of Smart Industries. Emerging Science Journal, 0, 4, 1-17.	3.7	22
34	An elliptic curve cryptography based mutual authentication scheme for smart grid communications using biometric approach. Journal of King Saud University - Computer and Information Sciences, 2022, 34, 698-705.	3.9	20
35	A rapid approach for prediction of liver cirrhosis based on first order statistics. , 2011, , .		19
36	Representation of heterogeneous objects during design, processing and freeform-fabrication. Materials & Design, 2001, 22, 185-197.	5.1	18

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37	A CAD system for B-mode fatty liver ultrasound images using texture features. <i>Journal of Medical Engineering and Technology</i> , 2015, 39, 123-130.	1.4	17
38	A secure and efficient key agreement framework for critical energy infrastructure using mobile device. <i>Telecommunication Systems</i> , 2021, 78, 539-557.	2.5	17
39	A Pairing-Free Identity Based Authentication Framework for Cloud Computing. <i>Lecture Notes in Computer Science</i> , 2013, , 721-727.	1.3	17
40	Polynomial based non-interactive session key computation protocol for secure communication in dynamic groups. <i>International Journal of Information Technology (Singapore)</i> , 2020, 12, 283-288.	2.7	16
41	6-Benzylaminopurine affects lipid peroxidation and membrane permeability and thereby preserves curd quality and antioxidants during storage of cauliflower. <i>Acta Physiologiae Plantarum</i> , 2015, 37, 1.	2.1	15
42	Normal limits of the electrocardiogram in Indians. <i>Journal of Electrocardiology</i> , 2015, 48, 652-668.	0.9	15
43	A study and comparison of different image segmentation algorithms. , 2016, , .		14
44	Liver Ultrasound Image Segmentation Using Region-Difference Filters. <i>Journal of Digital Imaging</i> , 2017, 30, 376-390.	2.9	14
45	Fully Homomorphic Encryption Scheme with Probabilistic Encryption Based on Euler's Theorem and Application in Cloud Computing. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 605-611.	0.6	14
46	SFVCC: Chaotic map based security framework for vehicular cloud computing. <i>IET Intelligent Transport Systems</i> , 2020, 14, 241-249.	3.0	14
47	Direct data compression techniques for ECG signals: effect of sampling frequency on performance. <i>International Journal of Systems Science</i> , 1997, 28, 217-228.	5.5	13
48	Intensity population based unsupervised hemorrhage segmentation from brain CT images. <i>Expert Systems With Applications</i> , 2018, 97, 325-335.	7.6	13
49	CKMIB: Construction of Key Agreement Protocol for Cloud Medical Infrastructure Using Blockchain. <i>IEEE Access</i> , 2022, 10, 67787-67801.	4.2	13
50	ECG Data Compression using Non-redundant Templates. <i>IETE Technical Review (Institution of)</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222	3.2	12
51	An Identity-Based Authentication Framework for Big Data Security. <i>Lecture Notes in Networks and Systems</i> , 2019, , 63-71.	0.7	12
52	ECG data compression using fast Walsh transform and its clinical acceptability. <i>International Journal of Systems Science</i> , 1997, 28, 831-836.	5.5	10
53	Performance Evaluation of Color Models in the Fusion of Functional and Anatomical Images. <i>Journal of Medical Systems</i> , 2016, 40, 122.	3.6	10
54	A secure and robust group key distribution and authentication protocol with efficient rekey mechanism for dynamic access control in secure group communications. <i>International Journal of Communication Systems</i> , 2020, 33, e4465.	2.5	10

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55	RAPCHI: Robust authentication protocol for IoMT-based cloud-healthcare infrastructure. Journal of Supercomputing, 2022, 78, 16167-16196.	3.6	10
56	Signal-analysis and a heuro-logistic interpretation of multi-lead electrocardiograms. International Journal of Systems Science, 1998, 29, 323-334.	5.5	8
57	A comparative study on spectral parameters of HRV in yogic and non-yogic practitioners. International Journal of Medical Engineering and Informatics, 2010, 2, 1.	0.3	8
58	Denoising of ultrasound images using Curvelet Transform. , 2010, , .		8
59	Evaluation of cognitive behavior among deaf subjects with video game as intervention. Cognitive Systems Research, 2017, 42, 42-57.	2.7	8
60	RAFI: Robust Authentication Framework for IoT-Based RFID Infrastructure. Sensors, 2022, 22, 3110.	3.8	8
61	IFCM Based Segmentation Method for Liver Ultrasound Images. Journal of Medical Systems, 2016, 40, 249.	3.6	7
62	LKM-AMI: A Lightweight Key Management Scheme for Secure two Way Communications between Smart Meters and HAN Devices of AMI System in Smart Grid. Peer-to-Peer Networking and Applications, 2021, 14, 82-100.	3.9	7
63	Cascade Control of Interconnected System Using Neural Network. IETE Journal of Research, 2002, 48, 461-469.	2.6	6
64	A secure and energy efficient key agreement framework for vehicle-grid system. Journal of Information Security and Applications, 2022, 68, 103231.	2.5	6
65	Quality Assurance in Cardiac Disease Diagnostic using Computerised Feature Extraction of ECG Signal. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2003, 20, 377-386.	3.2	5
66	COMPARATIVE STUDY OF WAVELET BASED NEURAL NETWORK AND NEURO-FUZZY SYSTEMS. International Journal of Wavelets, Multiresolution and Information Processing, 2007, 05, 879-906.	1.3	5
67	Design Flaws and Cryptanalysis of Elliptic Curve Cryptography-Based Lightweight Authentication Scheme for Smart Grid Communication. Lecture Notes in Electrical Engineering, 2020, , 169-179.	0.4	5
68	ECG Data Compression using EBP-NN. IETE Technical Review (Institution of Electronics and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 T	3.2	4
69	Detection of Bearing Failure in Rotating Machine Using Adaptive Neuro-Fuzzy Inference System. , 2006, , .		4
70	An Efficient and Scalable Distributed Key Management Scheme Using Ternary Tree for Secure Communication in Dynamic Groups. Lecture Notes in Electrical Engineering, 2020, , 152-164.	0.4	4
71	A Study of Pairing-Free Identity-Based Mutual Authenticated Protocol for Cloud Computing. International Journal of Engineering Research and Applications, 2017, 07, 10-14.	0.1	4
72	Time-Evolution of Cardiovascular Variability During Autonomic Function Tests in Physiological Investigations. , 2006, 2006, 1772-5.		3

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73	The Time Evolution of Frequency Components of Heart Rate Variability Using Wavelets. IETE Journal of Research, 2006, 52, 481-488.	2.6	3
74	EAAF: ECC-based anonymous authentication framework for cloud-medical system. International Journal of Computers and Applications, 2022, 44, 491-500.	1.3	3
75	Design Flaws and Cryptanalysis of a Standard Mutual Authentication Protocol for Cloud Computing-Based Healthcare System. Lecture Notes in Electrical Engineering, 2020, , 99-109.	0.4	3
76	SCGKM: a secure and cost-effective group key management scheme for multicast communication in large dynamic groups. International Journal of Information Technology (Singapore), 2022, 14, 781-788.	2.7	3
77	RAKS: robust authentication and key agreement scheme for satellite infrastructure. Telecommunication Systems, 2022, 81, 83-98.	2.5	3
78	Hansen Disease Diagnostics using Wavelets, Fuzzy and EBP-NN based Expert System. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2004, 21, 153-175.	3.2	2
79	Vibration based Fault Diagnosis of induction Motor. IETE Technical Review (Institution of Electronics) Tj ETQq1 1 0.784314 rgBT /Over 3.2	3.2	2
80	Medical feature based qualitative evaluation of denoising techniques for ultrasound liver images. International Journal of Signal and Imaging Systems Engineering, 2008, 1, 135.	0.6	2
81	An ANN-based HRV classifier for cardiac health prognosis. International Journal of Electronic Healthcare, 2014, 7, 315.	0.3	2
82	Grating lobe and sidelobe suppression using Multi-Objective Optimization Techniques. , 2015, , .		2
83	Side lobe and grating lobe suppression in stepped frequency pulse train using multi-objective optimization algorithms. , 2016, , .		2
84	A hybrid computer-aided diagnosis system for abnormality detection in mammograms. , 2017, , .		2
85	An advanced web-based digital image processing virtual lab using LabVIEW. , 2017, , .		2
86	Multi-Scale Decomposition Transform Based Approach for CT and MR Image Fusion. Journal of Medical Imaging and Health Informatics, 2015, 5, 715-723.	0.3	2
87	Real-Time Identification of Distributed Bearing Faults in Induction Motor. , 2006, , .		1
88	Design of high delay block using voltage scaling technique. , 2012, , .		1
89	EKG acquisition under incorrect electrode positions. , 2015, , .		1
90	Performance analysis of femtocell in macro-cellular environment. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
91	Reply to comment on "SFVCC: Chaotic map-based security framework for vehicular cloud computing". IET Intelligent Transport Systems, 2020, 14, 1724-1724.	3.0	1
92	Design Flaws and Suggested Improvement of Secure Medical Data Sharing Scheme Based on Blockchain. Lecture Notes on Data Engineering and Communications Technologies, 2022, , 823-832.	0.7	1
93	Cryptanalysis and design flaws of anonymous ECC based self-certified key distribution scheme for smart grid. Materials Today: Proceedings, 2022, 57, 2185-2189.	1.8	1
94	Advances in Automatic Seismic Detection. IETE Journal of Education Online, 1988, 29, 123-131.	0.6	0
95	Hartley Transform for Detection of Seismic Events. IETE Journal of Research, 1994, 40, 231-236.	2.6	0
96	ECG delineation techniques and applications in Cobra venom interacted patients. , 2009, , .		0
97	Virtual lab for ultrasound image enhancement. , 2010, , .		0
98	Approach towards automatic segmentation of diaphragm from ultrasound images. , 2017, , .		0
99	Alpha-trimmed first order statistics for the classification of liver US images. , 2017, , .		0
100	Current Reduction in EPAS System of Electric Vehicles using 2-DOF PID Controller tuned with GWO and SSA. , 2020, , .		0
101	Information count and distribution matrix: A contemporary approach for content-based brain image indexing. International Journal of Imaging Systems and Technology, 2020, 30, 779-793.	4.1	0
102	Venom and ECG Signal Processing. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 165-186.	0.4	0
103	Time-Evolution of Cardiovascular Variability During Autonomic Function Tests in Physiological Investigations. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
104	SVM Based System for classification of Microcalcifications in Digital Mammograms. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0