Profile Page

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Designation	:	Assistant Professor Grade-i
Department	:	Computer Science & Engg.
Qualification	:	Ph.D Computer Science & Engineering (NIT Jalandhar)
		M.Tech Computer Science & Engineering (NIT Jalandhar)
		B.Tech Computer Science & Engineering (UPTU Lucknow)
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Research Interests :

Steganography – Image data hiding, Text steganography, Reversible data hiding. Virtual private network (VPN), Artificial Intelligence, Machine Learning and Data Mining, Information Security, Internet of Things, Wireless Network.

Other Profile Links :

Google Scholar Link :

Dr Aruna Malik Click Here

Journal Publications :

Year	Journal	Publication
2022	Comput. Stand. Interfaces 79, 103548	Rohit Ramteke, Samayveer Singh, Aruna Malik: Optimized routing technique for IoT enabled software-defined heterogeneous WSNs using genetic mutation based PSO
2021	Int. J. Commun. Syst. 34(16)	Samayveer Singh, Aruna Malik, Rajeev Kumar, Pradeep Kumar Singh: A proficient data gathering technique for unmanned aerial vehicle-enabled heterogeneous wireless sensor networks
2021	IEEE Sensors Journal 21 (22), 25912-25921	AS Nandan, S Singh, A Malik, R Kumar, A Green Data Collection & Transmission Method for IoT-Based WSN in Disaster Management
2021	IEEE Internet of Things Journal	S Singh, AS Nandan, A Malik, R Kumar, LK Awasthi, N Kumar, A GA based Sustainable and Secure Green Data Communication Method Using IoT enabled WSN in Healthcare
2021	Soft Computing, 1-14	S Singh, A Malik, PK Singh, A threshold-based energy efficient military surveillance system using heterogeneous wireless sensor networks
2021	IEEE Sensors Journal 21 (13), 15398-15408	S Singh, AS Nandan, A Malik, N Kumar, A Barnawi, An Energy-Efficient Modified Metaheuristic Inspired Algorithm for Disaster Management System Using WSNs

2021	IET Image Processing	G Kaur, S Singh, R Rani, R Kumar, A Malik, High?quality reversible data hiding scheme using sorting and enhanced pairwise PEE
2021	Multimedia Tools and Applications, 1-19	N Kumar, R Kumar, A Malik, S Singh, Low bandwidth data hiding for multimedia systems based on bit redundancy
2021	Multimedia Tools and Applications, 1-15	A Vidyarthi, A Malik, A hybridized modified densenet deep architecture with CLAHE algorithm for humpback whale identification and recognition
2020	International Journal of Information Retrieval Research (IJIRR) 10 (4), 51-62	A Malik, S Gandhi, Efficient Pixel-Value Differencing Based Hybrid Steganographic Method Using Modulus Function
2020	Multimedia Tools and Applications 79 (25), 18005-18031	A Malik, G Sikka, HK Verma, A reversible data hiding scheme for interpolated images based on pixel intensity range
2019	Int. Arab J. Inf. Technol. 16 (1), 148-155	A Malik, G Sikka, HK Verma, A high capacity data hiding scheme using modified AMBTC compression technique
2018	Multidimensional Systems and Signal Processing 29 (4), 1801-1818	A Malik, G Sikka, HK Verma, An AMBTC compression based data hiding scheme using pixel value adjusting strategy
2018	Multimedia Tools and Applications 77 (12), 15803-15827	A Malik, S Singh, R Kumar, Recovery based high capacity reversible data hiding scheme using even-odd embedding
2017	Engineering Science and Technology, an International Journal 20 (1), 72-79	A Malik, G Sikka, HK Verma, A high capacity text steganography scheme based on LZW compression and color coding
2017	Engineering Science and Technology, an International Journal 20 (1), 345-353	S Singh, A Malik, R Kumar, Energy efficient heterogeneous DEEC protocol for enhancing lifetime in WSNs
2017	Multimedia Tools and Applications 76 (11), 13025-13046	A Malik, G Sikka, HK Verma, An image interpolation based reversible data hiding scheme using pixel value adjusting feature
2017	Multimedia Tools and Applications 76 (12), 14151-14167	A Malik, G Sikka, HK Verma, A high payload data hiding scheme based on modified AMBTC technique
2017	Journal of Information and Optimization Sciences 38 (5), 721-743	S Singh, A Malik, hetSEP: Heterogeneous SEP protocol for increasing lifetime in WSNs
2017	Journal of Information and Optimization Sciences 38 (5), 699-720	S Singh, A Malik, hetDEEC: Heterogeneous DEEC protocol for prolonging lifetime in wireless sensor networks
2017	Multimedia Tools and Applications 76 (22), 24107-24123	A Malik, G Sikka, HK Verma, Image interpolation based high capacity reversible data hiding scheme
2017	Journal of Information and Optimization Sciences 38 (5), 647-664	A Malik, G Sikka, HK Verma, A high capacity text steganography scheme based on huffman compression and color coding
2016	IET Wireless Sensor Systems 6 (5), 151-157	S Singh, S Chand, R Kumar, A Malik, B Kumar, NEECP: Novel energy-efficient clustering protocol for prolonging lifetime of WSNs
2016	International Journal of Forensic Computer Science 11 (1), 8-29	S Singh, A Malik, Energy efficient scheduling protocols for heterogeneous WSNs
2016	International Journal of Information Technology and Computer Science 9, 62-72	S Singh, A Malik, Heterogenous energy efficient protocol for enhncing the lifetime in WSNs
2015	International Journal of Image, Graphics & Signal Processing 7 (4), 68-74	A Malik, G Sikka, HK Verma, A Modified Pixel-Value Differencing Image Steganographic Scheme with Least Significant Bit Substitution Method
2012	International Journal of Computer Science and Software Engineering 2(5), 407-410	A Malik, HK Verma, R Pal, Impact of Firewall and VPN for securing WLAN

2012	International Journal of Computer Applications 46 (16), 25-30	A Malik, HK Verma, Performance Analysis of Virtual Private Network for Securing Voice and Video Traffic

Conference Publications :

Year	Conference	Publication
2021	Advances in Smart Communication and Imaging Systems, 343-351	A Malik, S Singh, S Awasthi, P Yadav, Gray-Version Invariant Reversible Data Hiding Scheme Based on 2D Histogram Modification for Color Images
2021	Advances in Smart Communication and Imaging Systems, 167-182	S Singh, P Yadav, A Malik, R Agrawal, OCHEP: An Optimized Cluster Head Election Protocol for Heterogeneous WSNs
2020	The International Conference on Recent Innovations in Computing, 235-251	S Singh, PK Singh, A Malik, OSEP: An Optimized Stable Election Protocol in Heterogeneous Wireless Sensor Networks
2020	The International Conference on Recent Innovations in Computing, 275-292	A Malik, S Singh, PK Singh, DACHE: a data aggregation-based effective and optimized cluster head election routing protocol for HWSNs
2018	IEEE International Conference on Advances in Computing, Communication Control and Networking (ICACCCN), pp. 828-831	A Malik, R Kumar, S Singh, A New Image Steganography Technique Based on Pixel Intensity and Similarity in Secret Message
2016	IEEE 3rd International Conference on Signal Processing and Integrated Networks (SPIN), pp. 53-56	R Kumar, A Malik, S Singh, S Chand, A high capacity email based text steganography scheme using Huffman compression
2016	IEEE International Conference on Computing, Communication and Automation (ICCCA), pp.1090-1094	R Kumar, A Malik, S Singh, B Kumar, S Chand, A space based reversible high capacity text steganography scheme using font type and style
2016	IEEE International Conference on Computing, Communication and Automation (ICCCA), pp.1399-1403	R Kumar, A Malik, S Singh, B Kumar, S Chand, Reversible data hiding scheme for LZW codes using even-odd embedding strategy
2016	Proceedings of the ACM International Conference on Advances in Information Communication Technology & Computing, pp. 58	A Malik, R Kumar, S Singh, Reversible data hiding scheme for LZW codes using LSB flipping strategy

Events Organized :

Category	Type	Title	Venue	From	To	Designation
STC	National	Security and privacy challenges in Computing paradigms	NIT Jalandhar	01-09-2020	05-09-2020	Coordinator
STC	National	Cyber Safety	NIT Jalandhar	28-07-2020	01-08-2020	Coordinator

Professional Affiliations :

Designation	Organization
Member	IEEE (ID:93355098)
Lifetime Member	Computer Society of India (ID:I1505593)
Member	IETE (ID:M 501792)
Lifetime Member	International Association of Engineers, IAENG (ID: 267069)
Lifetime Associate Member	Institution of Engineers (ID:AM-1978023)
Member	ACM Membership (ID: 7501697)

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Owais Nazir (19203020)	Development of Multi Speaker Text To Speech Synthesis System Using Generalized End To End Loss Function	Completed	2021	
Vivechana Maan (19203034)	Design of 3-d Pipe Routing Using Genetic Algorithm	Completed	2021	
Radha Pandey (19203023)	Object Detection and Movement Prediction for Autonomous Vehicle	Completed	2021	

Patents :

Name	Reg./Ref. No.	Date of Award/Filling	Organization	Status
SECURITY ENHANCEMENT BASED ON VARIOUS CRITERIA INDIGITAL PAYMENT TRANSACTIONS	TEMP/E-1/12696/2021-DEL	16/03/2021		In process

Award and Honours :

Title	Activity	Given by	Year
Best Teacher Award	Shikshak Samman Samaroh	Rashtria Shaikshik Mahasangh Uttar Pradesh	2018