

Faculty Profile



Name: Dr. Ajay Koul.

Designation: Associate Professor

Department: Computer Science & Engineering

Email ID: ajay.kaul@smvdu.ac.in

Contact Number 01991-285524 Extn. 2306

Qualification: Ph.D.

Experience: 17 Yrs.

Teaching: 15

Research: 6

Administration: 9

Total: 15 yrs

Areas of Interest / Specialisation:

1. Adhoc Networks
2. Image Processing

Brief Bio-data:

Dr. Ajay Koul, has PhD in Computer Science Engineering from Department of Computer Science and Engineering, Shri Mata Vaishno, Devi University and Masters of Technology in Computer Science & Engineering from Hyderabad University. He is currently working as Associate Professor in Department of Computer Science & Engineering, Shri Mata Vaishno Devi University, J&K, India, with more than 15 years of teaching experience. He has authored several research articles in International journals of repute. Besides having presented papers in several international conferences outside India. He has delivered lectures in various institutions/Universities and has also participated in various training programs and attended several workshops. He is affiliated with international societies like ACM, IACSIT etc. and is serving as Associate editor of an International journal of repute. His research interests include Security in Adhoc Networks and Image processing. He has done several research projects funded by MHRD and UGC. He has guided several under graduate and post graduate students in their projects and is currently providing Ph.D. supervision to four research scholars

Research Projects Undertaken:

S.No	Role	Title	Funding Agency	Current Status
1	Network Institute Coordinator	Mobile E Learning Terminals in collaboration with IIT Roorkee	MHRD	Closed
2	CO-PI	Educational resource planning in collaboration with IIT Kanpur	MHRD	Closed
3	PI	Secure and QoS oriented Routing Protocol for MANETs	UGC	Closed
4	Co-PI	Automatic Estimation of Slope, Angle, and Elevation of roads via Artificial Intelligence	MHRD	In Progress

Journal Publications

S.No	Year	Publications
1	2019	Image segmentation using computational intelligence techniques Archives of Computational Methods in Engineering
2	2019	Image segmentation using fuzzy competitive learning based counter propagation network, Multimedia Tools and Applications
3	2018	Hybrid fuzzy multi-criteria decision making based multi cluster head dolphin swarm optimized IDS for VANET, Journal of Vehicular Communications Elsevier
4	2018	A Survey on Intrusion Detection Systems and Honeypot based Proactive Security Mechanisms in VANETs and VANET Cloud Journal of Vehicular Communications Elsevier
5	2017	Bacterial foraging optimization based Radial Basis Function Neural Network (BRBFNN) for identification and classification of plant leaf diseases: An automatic approach towards Plant Pathology. IEEE Access
6	2015	Cumulative Techniques for Overcoming Security Threats in MANETs”, Intl. Journal of Computer Network and Information Security.
7	2015	Performance analysis of video streaming applications over VANETs.” In international Journal of Computer Applications.
8	2014	Novel Strategies practicing QoS in MANETs” International Journal of Computer Applications.
9	2014	Performance evaluation of CBR and VBR applications on different routing protocols in VANETs in International journal in recent trends in Engineering & Technology.

S.No	Year	Publications
10	2014	RSSI Based optimum Transmission power Adhoc on demand distance vector (rOTP-AODV) Routing Protocol” in International Journal of Computer Applications.
11	2014	Passive image forensic method to detect Copy Move Forgery in Digital Images in IOSR Journal of Computer Engineering.
12	2014	A Compressed Encrypted & Embedded Technique for Digital Image Steganography in IOSR Journal of Computer Engineering.
13	2010	Distance and Frequency Based Route Stability Estimation in Mobile Adhoc Networks”, in Journal of Emerging Technologies in Web Intelligence (JETWI) Emerging Technologies in Internet Security and Networks, Academy Publisher, Finland
14	2008	Arithmetic Encoding based Dynamic Source Routing for Ad hoc Networks”, Journal of Computer Science.
15	2007	Associated prime ideals of a complete lattice in the International Journal of Contemporary Mathematics.

Conference Publications

S.No	Year	Conference	Publication
1	2020	International Conference on Information and Computer Technologies (ICICT)	Semantic Segmentation and Contextual Information based Image Scene Interpretation.
2	2017	International Symposium on Metaheuristics and Swarm Intelligence(ISMSI 2017) Hong Kong	A Secure & QoS Oriented Routing Protocol for MANETs.
3	2016	international symposium on computational and Business intelligence(ISCBI), Olten Switzerland	Projection profile based Ligature segmentation of Nastaleeq Urdu OCR.
4	2013	Int. Conf. on Advances in Computer Science, AETACS New Delhi	A Comprehensive Study of Requirements for Network Applications and Routing Protocols Providing Resources in Vehicular Adhoc Networks
5	2013	LINC-2013 international Conference held at Massachusetts Institute of Technology, Cambridge USA	Educational Technology and its acceptance level among the students and teachers in some rural area
6	2012	Advances in recent Technologies in Comm. And computing, Bangalore.	Link Stability analysis in VANETs using Topology based protocols.
7	2011	International conference on computer research and development, Shanghai, China	A System Level Security in MANETs

S.No	Year	Conference	Publication
8	2010	Fifth International conference of Learning International Networks Consortium; LINC-2010, at MIT, Boston, USA	MeLTs; A new approach to delivery of e-learning in remote and un-served rural areas in India.
9	2010	5th Jammu & Kashmir State Science Congress, organized by University of Jammu (February 08-10, 2010). Jammu	VSAT Enabled Mobile e-Learning Terminals for Education in Remote Areas”
10	2009	International Conference on ARTCOM Bangalore	Double Split based Secure Multipath Routing in Ad hoc Networks

Research Supervised:M.Tech Thesis

S.No	Year	Role	Research Topic	Status	
1	2019	Supervisor	Targeted and Universal Methods in Image Anti-Forensics	Completed	
2	2018	Supervisor	1) Image Based Detection of Lung Cancer using Watershed Transform: A Study	Completed	
3			2) Nuclei Segmentation in digital histopathological Images		
4	2017	Supervisor	OCR for Regional Languages of Jammu & Kashmir	Completed	
5	2016	Supervisor	1) Fingerprint Recognition using Discrete Wavelet Transform and Singular Value Decomposition	Completed	
6			2) Understanding Human Gesture through Video Analytics		Completed
7			3) Face recognition and detection through similarity measurements		
8	2015	Supervisor	1) Projection Profile Based Ligature Segmentation of Nastaleeq Urdu OCR	Completed	
9			2) A Study and improvisation of Image Quality parameters in Visual Cryptographic Schemes		Completed
10	2014	Supervisor	1) CEET: A Compressed Encrypted & Embedded Technique for Digital Image Steganography	Completed	
11			2) Passive image forensic method to detect Copy Move Forgery in Digital Images		Completed

S.No	Year	Role	Research Topic	Status
12	2013	Supervisor	1) RSSI Based optimum Transmission power AoDV	Completed
13			2) Trust incorporation in AODV in MANETS using Delay as a Trust Metric	Completed
14	2014	Supervisor	Link Stability Estimation in Vehicular Adhoc Networks.	Completed

Awards and Honours

S.No	Title	Activity/Event	Given by	Year
1	Young Scientist award	JK Science Congress	Department of Science & Technology Government of jammu & Kashmir	2015

Professional Affiliations

S.No	Designation	Organization
1	Associate Editor	Neural Computing and Applications
2	Member	Association of Computing Machinery
3	Member	International Association of Computer Science & Information Technology