

Profile Page



Name : Dr Geeta Sikka
Designation : Associate Professor
Department : Computer Science & Engg.
Qualification : Ph D Analysis & Design of Analogy based Software Effort Estimation Approaches (National Institute of Technology, Jalandhar)
M Tech (Punjab Agricultural University, Ludhiana)
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Research Interests :

Data Mining, Data Warehousing, Databases, Data Science, Data Analytics, Big Data, Software Engineering, Security, Cloud computing,

Other Profile Links :

Google Scholar Link :

Vidwan Expert Database [Click Here](#) [Google Scholar](#) [Click Here](#)

Personal Web Link :

Geeta Sikka [Click Here](#) [ORCID](#) [Click Here](#) [Web of Science](#) [ResearcherID](#) [Click Here](#) [Vidwan Expert Database](#) [Click Here](#)

Journal Publications :

Year	Journal	Publication
March 2020	Information Processing & Management, Elsevier (SCI IF=6.222)	Neha Agarwal, Geeta Sikka and Lalit Kumar Awasthi, "Evaluation of Web Service Clustering using Dirichlet Multinomial Mixture Model based Approach for Dimensionality Reduction in Service Representation" https://doi.org/10.1016/j.ipm.2020.102238
June 2021	Computer Communications Volume 174, 1 June 2021, Pages 61-74 SCI (IF 3.167)	Urvashi Garg, Geeta Sikka, Lalit K. Awasthi An ensemble approach for optimization of penetration layout in wide area networks Author links open overlay panel https://doi.org/10.1016/j.comcom.2021.04.009
July 2020	Journal of Ambient Intelligence and Humanized Computing (SCI IF 7.104)	Pushpendra Rajput and Geeta Sikka, "Multi-agent architecture for fault recovery in self healing systems" (Accepted)

July 2020	Expert Systems With Applications Elsevier (SCI IF=6.954)	Neha Agarwal, Geeta Sikka and Lalit Kumar Awasthi "Enhancing Web Service Clustering using Length Feature Weight Method for Service Description Document Vector Space Representation" https://doi.org/10.1016/j.eswa.2020.113682
July 2020	Journal of Ambient Intelligence and Humanized Computing (SCI IF: 7.104)	Priyavrat, Nonita Sharma and Geeta Sikka " The emergence of social media data and sentiment analysis in election prediction"(Accepted)
2020	Transactions on Emerging Telecommunications Technologies, WILEY (SCI IF-2.638)	Manoj Kumar, Harsh Kumar Verma, and Geeta Sikka, "A Secure Data Transmission Protocol for Cloud-assisted Edge-IoT Environment" https://doi.org/10.1002/ett.3883
2020	Big Data (Mary Ann Liebert Inc) (SCI IF 3.644)	Utsav Upadhyay, and Geeta Sikka, "STDADS:An Efficient Slow Task Detection Algorithm for Deadline Schedulers" https://doi.org/10.1089/big.2019.0039
2020	Multimedia Tools and Applications, Springer (SCI IF 2.757)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "A Reversible Data Hiding Scheme for Interpolated Images based on Pixel Intensity Range" https://doi.org/10.1007/s11042-020-08691-2
2020	Big Data (Mary Ann Liebert Inc) (SCI IF 3.644)	Utsav Upadhyay, and Geeta Sikka "MRS-DP: Improving Performance and Resource Utilization of Big Data Applications with Deadlines and Priorities"
2020	Arabian Journal for Science and Engineering, Springer (SCI IF=2.53)	Aarti, Geeta Sikka, and Renu Dhir, "Novel Grey Relational Feature Extraction Algorithm for Software Fault-Proneness using BBO (B-GRA)" https://doi.org/10.1007/s13369-020-04445-2
2020	Journal of Computer Networks and Applications (Scopus)	Utsav Upadhyay, Saurabh Maheshwari, and Geeta Sikka, "SRD-LB: A Smart Route Determining algorithm with Load Balancing for Smart Cities in India" (Acceptance: 8 March, 2020)
2019	International Journal of Computational Systems Engineering, Inderscience	Aarti, Geeta Sikka, and Renu Dhir, "Empirical Validation of Object-Oriented Metrics on Cross-Projects with Different Severity Levels" https://doi.org/10.1504/IJCSYSE.2019.103647
2019	International Arab Journal of Information Technology, Volume 16, Issue 1, Pages 148-155 (SCI IF:0.724)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "A High Capacity Data Hiding Scheme Using Modified AMBTC Compression Technique" https://iajit.org/PDF/January 2019, No. 1/11357.pdf
2019	Recent Advances in computer Science and communications, BENTHAM SCIENCE (SCOPUS)	Utsav Upadhyay, and Geeta Sikka, "An Efficient Speculative Task Detection Algorithm for MapReduce Schedulers"DOI : 10.2174/2666255813666190911113129
2019	International Journal of Intelligent Systems Design and Computing (Inderscience)	Aarti, Geeta Sikka, and Renu Dhir, "Regression based Software Fault Prediction using Biogeography-based Optimization (R-BBO)" https://www.inderscienceonline.com/doi/abs/10.1504/IJISDC.2019.105803
2019	International Journal of Intelligent Engineering Informatics, Inderscience (ESCI)	Aarti, Geeta Sikka, and Renu Dhir, "Threshold based Empirical Validation of Object-Oriented Metrics on Different Severity Levels" https://doi.org/10.1504/IJIEI.2019.099090
2019	The International Arab Journal of Information Technology (SCI IF:0.724)	Aarti, Geeta Sikka, and Renu Dhir, "Genetic Algorithm based Clustering with Neural Network Classification for Software Fault Prediction"
2018	Transactions on Emerging Telecommunications Technologies, Wiley (SCI IF 2.638)	Manoj Kumar, Harsh Kumar Verma, Geeta Sikka, "A secure lightweight signature based authentication for Cloud-IoT crowdsensing environments" https://doi.org/10.1002/ett.3292
2018	International Journal of Information and Computer Security, Inderscience (Scopus)	Urvashi, Geeta Sikka and Lalit K Awasthi, "Empirical risk assessment of attack graphs using time to compromise framework" (Accepted)

2018	International Journal of Engineering and Technology	Utsav Upadhyay, Geeta Sikka, "Framework of resource scheduler for big data applications with deadlines and priorities" (Accepted)
2018	Intelligent Decision Technologies (SCOPUS)	Pushpendra Kumar Rajput, Geeta Sikka, "Exploration in Adaptivness to Achieve Automated Fault Recovery in Self-healing Software Systems:A Review" DOI: 10.3233/IDT-180114
2018	International Journal of Data Mining, Modelling and Management (ESCI)	Aarti, Geeta Sikka, Renu Dhir, "Grey Relational Classification Algorithm for Software Fault Proneness with SOM Clustering" https://doi.org/10.1504/IJDMMM.2020.105599
2018	Multidimensional Systems and Signal Processing, Springer (SCI IF=2.030)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "An AMBTC compression based data hiding scheme using pixel value adjusting strategy" https://doi.org/10.1007/s11045-017-0530-8
2018	Computers and Security, Elsevier (SCOPUS)	Urvashi Garg, Geeta Sikka, Lalit kumar Awasthi, "Empirical Analysis of attack graphs for mitigating critical paths and Vulnerabilities" https://www.sciencedirect.com/science/article/pii/S0167404818303493
2017	Journal of Information and Optimization Sciences (Taylor and Francis) (ESCI)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "A High Capacity text steganography scheme based on huffman compression and color coding" https://doi.org/10.1080/02522667.2016.1197572
2017	Multimedia Tools and Applications, Springer (SCI IF 2.757)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "A high payload data hiding scheme based on modified AMBTC technique" https://link.springer.com/article/10.1007/s11042-016-3815-2
2017	Multimedia Tools and Applications, Springer (SCI IF 2.757)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "An image interpolation based reversible data hiding scheme using pixel value adjusting feature" https://link.springer.com/article/10.1007/s11042-016-3707-5
2017	Engineering Science and Technology, Elsevier (SCI)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "A high capacity text steganography scheme based on LZW compression and color coding" http://www.sciencedirect.com/science/article/pii/S2215098616301331
2016	International Journal of System Assurance Engineering and Management, Springer (Scopus)	Aarti, GeetaSikka, and Renu Dhir, "An investigation on the effect of cross project data for prediction accuracy" https://link.springer.com/article/10.1007/s13198-016-0439-x
2016	Multimedia tools and applications, Springer (SCI IF 2.757)	Aruna Malik, Geeta Sikka, and Harsh K Verma, "Image interpolation based high capacity reversible data hiding scheme" link.springer.com/article/10.1007/s11042-016-4186-4
2016	International Journal of Education and Management Engineering (IJEME), MECS	Aarti, Geeta Sikka, and Renu Dhir, "An Investigation on the Metric Threshold for Fault-Proneness" http://www.mecs-press.org/ijeme/ijeme-v7-n3/IJEME-V7-N3-4.pdf
2015	Journal of Information Processing Systems	Nandini Malhotra, and Geeta Nagpal, "Genetic Symmetric Key Generation for IDEA"
2015	International Journal of Image, Graphics and Signal Processing Volume 7, Issue 4, Pages 68-74	Aruna Malik, GeetaSikka, and Harsh K Verma, "A Modified Pixel-Value Differencing Image Steganographic Scheme with Least Significant Bit Substitution Method" http://www.mecs-press.org/ijigsp/ijigsp-v7-n4/v7n4-8.html
2014	International Journal of Computational Intelligence Studies, Volume 3, Issue 1, Pages 40-73	Geeta Nagpal, Moin Uddin, and Arvinder Kaur, "Grey relational effort analysis technique using robust regression methods for individual projects" https://doi.org/10.1504/IJCISTUDIES.2014.058641
2014	International Journal of Computational Intelligence Studies, Volume 3, Issue 1, Pages 74 - 93	Pushpendra Rajput, Geeta Nagpal, Aarti, "Feature weighted unsupervised classification algorithm and adaptation for software cost estimation"
2014	The International Arab Journal of Information Technology, Volume 11, Issue 5, Pages 437-446 (SCI IF:0.724)	Geeta Nagpal, Moin Uddin, Arvinder Kaur; Grey Relational Effort Analysis Technique Using Regression Methods for Software Estimation

2014	ACM SIGBED, Volume 11, Issue 3, Pages 8-18	Surabhi Midha, Ajay K Sharma, Geeta Sikka; A survey on wireless sensor network clustering protocols optimized via game theory
2013	ACM SIGSOFT Software Engineering Notes Vol. 38, Issue 1, Pages 1-9	Geeta Nagpal, Moin Uddin, Arvinder Kaur; Analyzing software effort estimation using k means clustered regression approach
2012	International Journal of Soft Computing and Engineering (IJSCE) ,Volume 1, Issue 6, Pages 20-27	Geeta Nagpal, Moin Uddin, Arvinder Kaur, A Hybrid Technique using Grey Relational Analysis and Regression for Software Effort Estimation using Feature Selection
2012	Journal of Information Processing Systems Volume 8, Issue 4, Pages 621-652	Geeta Nagpal, Moin Uddin, Arvinder Kaur; A Comparative Study of Estimation by Analogy using Data Mining Techniques
2012	International Journal of Computer Applications Volume 48, Issue 12, Pages 7399-0210	Saurabh Sarkar, Geeta Sikka, Ashish Kumar; Evolution and Optimization of Active Queue Management Algorithms over High Bandwidth Aggregates
2012	International Journal of Computer Applications Volume 52, Issue 15, Pages 8282-1278	Sangeeta Rani, Geeta Sikka; Recent techniques of clustering of time series data: A Survey
2011	ACM SIGSOFT Software Engineering Notes Volume 36, Issue 4, Pages: 1-5	Syona Gupta, Geeta Sikka, Harsh Verma; Recent methods for software effort estimation by analogy

Conference Publications :

Year	Conference	Publication
May 2021	ICTACT-2021 (INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING TECHNIQUES 2021)	Mansi Sharma and Geeta Sikka Blockchain based approaches for preventing drug counterfeit: A Survey
May 2021	Second International Conference on Secure Cyber Computing and Communications (ICSCCC-2021)	Shriya Gupta and Geeta Sikka Explaining HCV prediction using LIME Explainer model
May 2021	Second International Conference on Secure Cyber Computing and Communications (ICSCCC-2021)	Priyavrat Chauhan, Nonita Sharma and Geeta Sikka Autoregressive Techniques for Forecasting Applications
May 2021	Second International Conference on Secure Cyber Computing and Communications (ICSCCC-2021)	Shivdeep Singh and Geeta Sikka YouTube Sentiment Analysis on US Elections 2020
2020	International Conference on Recent Innovations in Computing, Springer (Scopus)	Priyavrat, Nonita Sharma and Geeta Sikka, "Multimodal Sentiment Analysis of Social Media Data: A Review"
2020	International Conference on Recent Innovations in Computing, Springer (Scopus)	Aridaman Singh Nandan and Geeta Sikka, "Path finding using PSO cooperated with randomized noise functions"
2020	International Conference on Recent Innovations in Computing, Springer (Scopus)	Neha Agarwal, Geeta Sikka and Lalit Kumar Awasthi, "Web Service Clustering Approaches to Enhance Service Discovery: A Review" (Acceptance: 23 February 2020)
2018	International Conference on Secure Cyber Computing and Communications	Sourabh Sarkar and Geeta Sikka, "A Comparative Study of Classifiers Used in Facial Embedding Classification" (Accepted)

2018	International Conference on Secure Cyber Computing and Communications	Sumandeep Kaur and Geeta Sikka, "Sentiment Analysis Approach Based on N-gram and KNN Classifier" (Accepted)
2016	MECIT	Aarti, G. Sikka, Renu Dhir, "Identification of error prone classes and quality estimation using semi supervised learning mechanism with limited fault data"
2016	Proceedings of the World Congress on Engineering and Computer Science, WCECS 2016	Chandanmeet Narula, Geeta Sikka; "Comparison of Apriori and Parallel FP Growth over Single-node and Multi-node Hadoop Cluster"
2016	Symposium on Colossal Data Analysis and Networking (CDAN) 18-19 March 2016 doi 10.1109/CDAN.2016.757 0965 Publisher: IEEE Explore	Vivek Sharma, Apoorv Agarwal, Renu Dhir, Geeta Sikka, "Sentiments mining and classification of music lyrics using SentiWordNet"
2016	Symposium on Colossal Data Analysis and Networking (CDAN) 18-19 March 2016 DOI: 10.1109/CDAN.2016.757 0949 Publisher: IEEE Explore	Apoorv Agarwal ,Vivek Sharma, Geeta Sikka and Renu Dhir, "Opinion Mining of News Headlines using SentiWordNet"
2015	Asia-Pacific Software Engineering Conference (APSEC), Pages 127-34	Shallu Sarvari, Paramvir Singh and Geeta Sikka, "Efficient and Scalable Collection of Dynamic Metrics using MapReduce"
2014	ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India, Pages 695-702	Rakshit Arya and Geeta Sikka, "An Optimized Approach for Density Based Spatial Clustering Application with Noise"
2014	ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India, Pages 723-728	Davendar Kumar Ojha, Geeta Sikka, "A Study on Vectorization Methods for Multicore SIMD Architecture Provided by Compilers"
2014	International Conference on Advances in Engineering and Technology(ICAET2014) March 29-30, 2014, Singapore	Pushpendra K Rajput, Geeta Sikka, "CGANN-Clustered genetic Algorithm with Neural Network for Software Cost Estimation"
2013	Proceedings of the World Congress on Engineering and Computer Science, Volume 2, Page 1-6	Mohit K. Gupta and Geeta Sikka, "Association Rules Extraction using Multi-Objective Feature of Genetic Algorithm"
2013	Third International Conference on Computer Science and Information Technology(CCSIT 2013) Banglore,India	Geeta Nagpal, Moin Uddin and Arvinder Kaur, "Estimating Project Development Effort using Clustered Regression Approach"
2011	International Conference on Databases and Data Mining (ICDDM 2011)	Munish Saini and Geeta Sikka, "Algorithm for Improvement of the Performance of Apriori Algorithm"
2010	ICESSE 2010-International Conference on Computer,Electrical, and System Science, and Engineering at Penang February 2010	Geeta Sikka, Moin uddin, Arvinder Kaur, "Comparison of Imputation Techniques for efficient Prediction of Software Fault Proneness in Classes"
2010	The 2nd International Conference on Education Technology and Computer (ICETC 2010) Shanghai China during Jun 22-24, 2010,	Ms. Geeta Sikka, Dr. Ms. Arvinder Kaur, Dr. Moin Uddin, "Estimating Function points : Using Machine Learning and Regression Models"

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book Chapter	Behavior-Based Approach for Fog Data Analytics: An Approach Toward Security and Privacy	Springer (Accepted: 1 March, 2020)	Urvashi, Lalit K Awasthi and Geeta Sikka		2020

Book Chapter	Techniques for Task Scheduling in Cloud and Fog Environment: A Survey	Communications in Computer and Information Science (CCIS), vol 1206, Springer, Singapore DOI https://doi.org/10.1007/978-981-15-4451-4_53	Raj Mohan Singh, Lalit Kumar Awasthi, and Geeta Sikka	978-981-15-4451-4	2020
Book Chapter	“A Systematic review of attack graph generation and analysis techniques”, Book on Computer and Cyber Security: Principles, Algorithm, Applications and Perspectives	(Taylor & Francis) (In press)	Urvashi Garg, Geeta Sikka, Lalit Awasthi		2018
Book Chapter	Reducing Stage Weight Estimation Error of Slow Task Detection in MapReduce Scheduling	Advances in Intelligent Systems and Computing Book Series (AISC) Springer	Utsav Upadhyay, Geeta Sikka	2194-5357	2017
Book Chapter	An Optimized Approach for Density Based Spatial Clustering Application with Noise Advances in Intelligent Systems and Computing	Advances in Intelligent Systems and Computing, vol 248. Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-03107-1_76	Rakshit Arya and Geeta Sikka		2014
Book Chapter	A Study on Vectorization Methods for Multicore SIMD Architecture Provided by Compilers	Advances in Intelligent Systems and Computing 248, DOI: 10.1007/978-3-319-03107-1_79, © Springer International Publishing Switzerland 2014	Davendar Kumar Ojha and Geeta Sikka		2014

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
PI	MODROBS	Modernization of Microprocessor or Laboratory	MHRD	1998	2001	10 Lacs	Completed	

PI	Research	Learn able Indoor Transportation Robot(LITR)	TEQIP II	2015	2016	45000	Completed	
Co PI	Research Project	Utilizing the power of Real Time Data Analytics and IoT to Improve Traffic & E Governance for Smart Cities Collaborative Research Scheme , AICTE	AICTE	June 2019	June 2021	1161000	Started	
Co Investigator	Research	An intelligent network analyser cum patcher for advanced security hardening of the organizational network	Department of Science & Technology	5 March 2021	2024	7889120	in progress	

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Seminar	National	Seminar on Information security	NIT Jalandhar	28-03-06	29-03-06	
STC	National	Emerging Trends in Physics and Information Technology	NIT Jalandhar	10-06-13	14-06-13	Coordinator
STC	National	Advances in Software Engineering & Knowledge Based Systems	NIT Jalandhar	16-12-13	20-12-13	Coordinator
STC	National	Recent Trends in Software Engineering and Knowledge Mining	NIT Jalandhar	01-06-15	05-06-15	Coordinator
STC	National	RAINLP	NIT Jalandhar	30-05-16	03-06-16	Coordinator
STC	National	ACSITT	NIT Jalandhar	02-01-17	06-01-17	Coordinator
Coding event under CSI	National	Technocracker Let's Codify	NIT Jalandhar with CSI	13-05-17	13-05-17	Coordinator
STC	National	Recent advances in computer networks and information security	NIT Jalandhar	08-07-13	12-07-13	Coordinator

STC	National	Data analysis and soft computing	NIT Jalandhar	13-06-2014	17-06-2014	Coordinator
STC	National	Cloud computing and big data analytics	NIT Jalandhar	19-05-15	19-05-15	Coordinator
Workshop	National	Software Engineering for IoT by Pankesh Patel	NIT Jalandhar	12-04-17	12-04-17	Coordinator
Expert Talk	National	Expert talk delivered by Dr M M Sharma, Director, NIELIT, Chandigarh	NIT Jalandhar	12-09-17	12-09-17	Organizer
STC	National	Cloud Computing and Internet of Things	NIT Jalandhar	18-12-2017	22-12-2017	Coordinator
Conference	International	International Conference on Secure Cyber Computing and Communications (ICSCCC 2018)	Department of Computer Science and Engineering, Dr B R Ambedkar NIT jalandhar	15-12-2018	17-12-2018	Convener
Curtain Raiser, Tech NITi'19	National	Curtain Raiser of Annual Technical Festival as Coordinator TechNiti, 2019	Video Conferencing hall, IT Building, NIT Jalandhar	03-05-2019	03-05-2019	Coordinator
Workshop	International	Two day Workshop on Data Science as Coordinator Sponsored by TEQIP III 27-28 May, 2019	Video Conferencing hall, IT Building, NIT Jalandhar	27-05-19	28-05-19	Coordinator
Technical Fest	National	techNITi19	NIT Jalandhar	08-11-19	10-11-19	Coordinator
STC	National	Machine and Deep Learning in Computer Vision	NKN Hall, Department of CSE, NIT Jalandhar	09-08-19	13-08-19	Coordinator
Workshop	National	Emerging Trends in Cyber Security	Video Conferencing Hall, Department of CSE, NIT Jalandhar	10-09-19	10-09-19	Coordinator
Technical	National	HACK@NITJ	Video Conferencing Hall, NIT Jalandhar	21-09-19	22-09-19	Coordinator
Internal Hackathon	National	Hackathon (Hack@NITJ'20)	NIT Jalandhar	19-01-2020	19-01-2020	Coordinator
Webinar	National	Machine Learning Essentials	NIT Jalandhar (Online)	08 June 2020	08 June, 2020	Coordinator
Webinar	National	Webinar on "Recent trends in Information Technology"	NKN Hall, IT Building (Online)	10 June, 2020	10 June, 2020	Coordinator
e-STC	National	ISEA Sponsored e_STC on Cyber Safety	NKN Hall, IT Building, NIT Jalandhar (Online)	28 July 2020	01 August 2020	Coordinator
e-STC	National	TEQIP_III Sponsored e_STC on "Identify the Weakest Link: An International e-STC on recent attacking and defensive strategies"	NIT Jalandhar (Online)	10 August 2020	14 August 2020	Convener

e-STC	National	TEQIP-III Sponsored e_STC on "Applications of Machine Learning in the Advancements of Computer Science"	NIT Jalandhar (Online)	17 August 2020	21 August 2020	Coordinator
e-STC	National	TEQIP III Sponsored e_STC on Exploring Potential: STC on 2020 Research Advances Towards Generating Leading Investigators	NIT Jalandhar (Online)	24 August 2020	28 August 2020	Convener
e-STC	National	TEQIP-III Sponsored e_STC on Security & Privacy Challenges in Computing Paradigms (SPCCP)	NIT Jalandhar (Online)	01 September 2020	05 September 2020	Co Convener
e STC	National	ISEA Sponsored "Cyber Security and Forensic"		March 22, 2021	March 26, 2021	

Professional Affiliations :

Designation	Organization
Member 94167781	IEEE
Member F-80002053	CSI
Fellow F-123338-2	Institute of Engineers

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Manoj	Set of cryptographic solutions for secure cloud data storage	Thesis Submitted	2021	Dr. Geeta Sikka
Priyavrat	Design and development of a system model for multimodal Sentiment analysis and classification of twitter data	Comprehensive Concluded	2020	Dr Geeta Sikka
Neha Agarwal	Design of an Efficient Web Service Clustering Model using Machine and Deep Learning	Thesis submitted	2019	Prof. Lalit Kumar Awasthi
Urvashi	Analysis And Design Of A Hybrid Model To Optimize And Prioritize Attack Graphs For Cyber Warfare	Completed	2019	Prof. Lalit Kumar Awasthi
Aarti	Fault prediction using machine learning techniques	Completed	2019	Renu Dhir
Raj Mohan Singh	Design and Analysis of Efficient Task Scheduling Algorithms in Fog Computing Environment	Comprehensive Concluded	2019	Dr Geeta Sikka
Aruna Malik	Design and Analysis of Text and Image based Steganography Technique	Completed	2017	Dr. Harsh Verma
Dalpat Songara	Digital Image Processing	Ongoing	2017	Dr Rajneesh Rani
Harleen	Dynamic Analysis based Software Modularization using search based Technique	Comprehensive Concluded	2014	

Utsav Upadhyay	Design of efficient job scheduler for map reduce in heterogeneous environments	Pre Submission Complete	2014	
Saurabh Namdev	Performance Analysis of a new protocol for secure communication in GSM based Networks	Comprehensive Concluded	2013	Dr. Geeta Sikka
Pushpendra Rajput	Design and Analysis of an efficient Self healing Approach for Software Systems using MultiAgent Architecture	Thesis submitted	2013	

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Aridaman Singh Nandan	Autonomous path finding model using reinforcement learning and evolutionary computing	ongoing	2020	
Shraddha Nand Shah	Melanoma skin cancer classification using deep neural network	ongoing	2020	Prof Lalit K Awasthi
Pranjal Singh Rana	Classification of Plant Leaves based on Transfer learning Algorithm	ongoing	2020	
Tanvi Baweja ,1440300	An approach to Enhance the Security of the Cloud : Bit Level Deduplication with a random key	Completed	2019	
Aashish Kumar	Analyzing Machine learning and Deep Learning Models for Sarcasm Detection in News Headlines	Completed	2019	
Bibhas Kumar Rana	Credit card fraud detection using machine learning paradigm	Completed	2019	
Pawan Kumar	Optimized privacy preservation scheme in VANET	Completed	2019	Prof Lalit K Awasthi
Saurabh Sarkar	A comparative study of Classifiers used in facial embedding classification	Completed	2018	
Zennia	Analyzing Complex Non trivial network using attack set generation by genetic algorithm	Completed	2018	
Pragya	An enhanced analytical approach to analyze and predict terrorism actions	Completed	2018	
Pallavi Grover	Automated Detection of Breast Cancer metastases in whole slide Images	Completed	2018	
Sumandeep Kaur	A Comparative Study of Machine Learning Classifiers on Twitter Sentiment Classification	Completed	2018	Prof Lalit K Awasthi
Shikha Mahajan	A novel time efficient approach to clustering using page rank theory	Completed	2017	
Akshay Sharma	Flight delay prediction using machine learning algorithm	Completed	2017	Prof Lalit K Awasthi
Mukesh Kumar	An analytical framework for terrorist activities prediction based on dark web	Completed	2017	Prof Lalit K Awasthi
Twinkle Sao	DIT card fraud detection using enhanced SMOTE and Fast Random Forest	Completed	2017	Prof A L Sangal
Kaifi Jindal	Estimation and reduction of average errors and time in page rank on Hadoop with successive iteration	Completed	2017	
Manvi	Tolhit : A scheduler for Hadoop	Completed	2016	
Chandanmeet	Study of Apriori and Fpgrowth on map reduce	Completed	2016	

Shivani	Advance accident detection and vehicle stability monitoring using real time pattern matching	Completed	2016	
Samarth	Navigation robot using artificial guided path	Completed	2015	
Sunil Kumar Suman	Hierarchical agglomerative clustering using merge sort and binary merge techniques	Completed	2015	
Vikas Singh	A hybrid model for noise removal in social media mining and its comparative analysis with logistic regression and neural network	Completed	2015	
Monica	Particle swarm optimization based hierarchical agglomerative clustering for software modularization	Completed	2015	Dr Paramvir Singh
Gaurav Ganesh Dhakar	An improved technique to distinguish or march any pair of time series data	Completed	2015	
Akash Kumar Tyagi	Enhanced locality sensitive hashing by reusing hash function calculation and cache conscious data structure	Completed	2015	
Shallu Sarvari	Efficient and scalable collection of dynamic matrix using Map Reduce	Completed	2015	Dr Paramvir Singh
Chitraksh Vyas	A randomized Map Reduce scheduling algorithm	Completed	2014	
Thammu Bharadwaj	A nonrestrictive algorithm for single source shortest path with linear time complexity for sparse graph	Completed	2014	
Ashutosh Jha	A new approach for finding maximally frequent item set	Completed	2014	
Surabhi	Optimizing energy efficiency and combating DOS attack via game theoretic and Delaunay Triangulation approach in Wireless sensor networks	Completed	2014	
Mohit	Association rule extraction using multi objective features of genetic algorithm	Completed	2013	
Devendra Ojha	A study on vectorization methods for multicore SIMD architecture provided by compiler	Completed	2013	
Rakshit Arya	An efficient extended density based clustering algorithm with noise	Completed	2013	
Nandini Malhotra	Genetic symmetric key generation for IDEA	Completed	2013	
Vikram Dhiman	Performance investigation of cluster routing protocols	Completed	2013	
Munish Saini	A new algorithm to improve the performance of apriori algorithm	Completed	2012	
Syona Gupta	Predicting software development effort for small data sets using grey relational analysis and robust regression	Completed	2012	
Sangeeta Rani	Improved hierarchical clustering for time series data	Completed	2012	

Patents :

Name	Reg./Ref. No.	Date of Award/Filing	Organization	Status
Copyright - Computer Software Work "Program for Attack Graph Generation, Optimization and Prioritization"	SW-9615/2017	08-11-2017	Copyright Office India	Registered

A SYSTEM AND METHOD TO FACILITATE SELF-RECOVERY OF DATA IN BLOCKCHAIN NETWORKS	Application No.202111004923 A	Publication Date : 12/02/2021	The Patent Office Journal No. 07/2021 Dated 12/02/2021	Published
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Admin. Responsibilities :

Position Held	Organization	From	To
Head, Department of Computer Science and Information Technology Departments	NIT Jalandhar	Feb. 2016	Feb. 2018
Faculty Incharge	Women Cell, NIT Jalandhar	2006	2013
Assistant Proctor in Proctorial Cell	NIT Jalandhar	2011	2014
Deputy Nodal Officer, TEQIP II	NIT Jalandhar	May 2013	2014
Head Computer Centre	NIT Jalandhar	Feb. 2018	March 2020
Coordinator Social Media Cell	NIT Jalandhar	Feb 2018	March 2020
Professor -in-charge Telecommunication	NIT Jalandhar	Jan 2018 onwards	
Coordinator-Memberships CSI, News and Media	CSE Department, NIT Jalandhar	Feb 2018	Till Date
Nodal Officer for Development of NIT Council Portal of NIT Jalandhar	NIT Jalandhar		
Coordinator PhD/M.Tech	NIT Jalandhar	2015	
Coordinator Hackathon	NIT Jalandhar	2017	Till Date
Member of the Finance Committee at NIT Jalandhar	NIT Jalandhar	April 2019	Dec 2019
Nominee of the Institute Senate, Board of Governors at NIT Jalandhar	NIT Jalandhar	Nov 2017	Dec 2019
Coordinator, TechNiti, 2019	Dr B R Ambedkar national Institute of Technology, Jalandhar	April 2019	till date
Associate Dean II (Faculty Welfare)	NIT Jalandhar	March 2020	...till date

Award and Honours :

Title	Activity	Given by	Year
Nomination as Subject Expert	Interview of Candidates on 10/08/2020	DAVIET, Jalandhar	2020
	Resource person for FDP at UCET, Bikaner, Rajasthan on 18 Sept, 2020		2020
Expert , Board of Studies	Expert , Board of Studies (Affiliated Colleges) for the period of 2019-2021	PTU	2019-2021
Expert , Board of Studies	Expert , Board of Studies IKGPTU 2019-2021	PTU	2019-2020
Session Chair	22nd Punjab Science Congress on 9 February 2019	DAVIET	2019
Session Chair	22nd Punjab Science Congress on 8 February 2019	DAVIET	2019

Nomination as Subject Expert	Interview of Candidates on 07/02/2019 (Computer Science and Engg.)	IKGPTU	2019
Best Teacher Award	14 Convocation Ceremony at NIT Jalandhar on 7 April 2019	NIT Jalandhar	2019
Best Paper Award	International Conference on Secure Cyber Computing and Communications ICSCCC 2018	NIT Jalandhar	2018
Nomination as Subject Expert	Interview of Candidates(Computer Science and Engg.) on 05/08/2018	IKGPTU	2018
Nomination as Subject Expert	Interview of Candidates(Computer Science and Engg.) on 21/08/2018	IKGPTU	2018
Nomination as Subject Expert	Interview of Candidates(Computer Science and Engg.) on 19/12/2018	IKGPTU	2018
Session Chair	International conference on Sciences, engineering and Technical Innovations, ICSETI, on 3 June, 2016	C T Group of Institutions	2016
Session Chair	International multitrack conference	CT Institute of Engineering, Management and Technology	2015
Session Chair	International Conference on Advances in Engineering and Technology	IIE Singapore	2014
Session Chair	National Conference on Recent Trends in Information & Communication Technologies	CT Institute of Engineering, Management and Technology	2013
Session Chair	International Conference on Education, Technology and Computer	ICETC Shanghai China	2010