

Faculty Profile



Name- Dr. Niranjana Lal

Designation- Associate Professor and Deputy Head, CSE

Email- niranjana@srmist.edu.in

EDUCATIONAL QUALIFICATION

PhD	Suresh Gyan Vihar University, Jaipur Rajasthan	2018
M.Tech	Guru Gobind Singh Indraprastha University, Delhi, India	2007
BE	Rajasthan University, Rajasthan, India	2005
12th	Rajasthan Board of Secondary Education, Rajasthan, India	2000
10th	Rajasthan Board of Secondary Education, Rajasthan, India	1997

RESEARCH INTEREST: Network Security, Wireless Sensor Networks, Cloud Computing, Dataspaces, Android Application Development, Information Retrieval, Machine Learning, IoT, and Blockchain

DETAILS OF PUBLICATIONS

Books Chapters National/International

1. Niranjana Lal, Vishal Sharma “IoT based framework for Healthcare Information System using Cloud Computing: Opportunities, Challenges, Security and Future Directions” in “IoT and Cloud Computing based Healthcare Information System”, Editors, Anand Sharma, H.K.D. Sharma, S.R. Biradar, CRC Press, Taylor & Francis Group- Scopus, WoS.- <https://www.appleacademicpress.com/iot-and-cloud-computing-based-healthcare-information-systems-/9781774911228> - **(Scopus Indexed)**
2. Vishal Sharma, Niranjana Lal, “Role of Blockchain in IoT Enabled Power and Energy Related Healthcare System- Platform for the Development of IoT Security”, in “Intelligent Data-Analytics for Power and Energy Systems: Advances in models and applications” Springer book series “Lecture Notes in Electrical Engineering. *Editors*, Dr. Hasmat Malik, Postdoctoral Scholar, BEARS, Singapore; Assistant Professor, Division of Instrumentation and Control Engineering, Netaji Subhas University of Technology, Delhi, India Scopus, WoS. https://link.springer.com/chapter/10.1007/978-981-16-6081-8_27 - **(Scopus Indexed)**
3. Bhupal Bhattacharya, Niranjana Lal, "Building a Greener World: Connecting IoT with Environment towards Sustainability", Internet of Things: Applications for Sustainable Development. (2023). United States: CRC Press. **(Scopus Indexed)**
4. Manmohan Sharma, Niranjana Lal, Priya Gupta, Rahul Dandautiya, "IoT Application in Agriculture for Smart Farming: Issues and Solutions", Internet of Things: Applications for Sustainable Development. (2023). United States: CRC Press. **(Scopus Indexed)**
5. Medini Gupta; Sarvesh Tanwar; Niranjana Lal; Ritvik Pawar, “12 Consensus Algorithms in Blockchain for Efficient and Secure Network,” in Recent Trends and Best Practices in Industry 4.0, River Publishers, 2023, pp.309-328. **(Scopus Indexed)**

Conference Papers (Peer-Reviewed)-Scopus/WoS

1. N. Lal, M. Tiwari, S. B. Dubey, and A. Tripathi, "Digital Support of Forensic Laboratories under Optimized BlockChain Network," *2021 Third International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV)*, 2021, pp. 258-262, DOI: 10.1109/ICICV50876.2021.9388582.
2. Niranjana Lal et al. "Prospects for Handling 5G Network Security: Challenges, Recommendations and Future Directions" *Journal of Physics: Conference Series*, Volume 1714, 2nd International Conference on Smart and Intelligent Learning for Information Optimization (CONSILIO) 2020 24-25 October 2020, Goa, India, 2021 J. Phys.: Conf. Ser. 1714 012052.
3. N. Lal, M. Singh, S. Pandey, and A. Solanki, "A Proposed Ranked Clustering Approach for Unstructured Data from Dataspace using VSM," 2020 20th International Conference on Computational Science and Its Applications (ICCSA), Cagliari, Italy, 2020, pp. 80-86, DOI: 10.1109/ICCSA50381.2020.00024.-Under AICTE Project
4. V. Sharma and N. Lal, "A Detail Dominant Approach for IoT and Blockchain with their Research Challenges," 2020 International Conference on Emerging Trends in Communication, Control and Computing (ICONC3), Lakshmanagarh, Sikar, India, 2020, pp. 1-6, DOI: 10.1109/ICONC345789.2020.9117533.
5. Niranjana Lal, Harshi Garg, "Data Analysis: Opinion Mining and Sentiment Analysis of Opinionated Unstructured Data" Springer Nature Singapore Pte Ltd. 2018, *Communications in Computer and Information Science (CCIS)* Volume 906, pp. 249–258, Nov 2018.
6. Niranjana Lal, Navneet Kaur, "Clustering of Social Networking Data using SparkR in Big Data" Springer Nature Singapore Pte Ltd. 2018, *Communications in Computer and Information Science (CCIS)*, Volume 906, pp. 217–226, Nov 2018.
7. Niranjana Lal, Bhagyashree Pathak, "Information Retrieval from Heterogeneous Data Sets using Moderated IDF-Cosine Similarity in Vector Space Model" "International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017)", pp. 3793-3799 IEEE Explorer, 2018.
8. Niranjana Lal, Shamimul Qamar, Monika Kalra, "K- Mean Clustering Algorithm Approach for Data Mining of Heterogeneous Data" *Information and Communication Technology for Sustainable Development (ICT4SD)*, LNNS, Springer Proceeding, Volume 10, pp.61-70, 2017.
9. Niranjana Lal, *Monika Kalra* "Data mining of heterogeneous data with research challenges" is presented in *Colossal Data Analysis and Networking (CDAN)*, Symposium, pp.1-6, on 18-19 March 2016.
10. Niranjana Lal, Samimul Qamar, "Comparison of Ranking Algorithms with Dataspace" 2015 International Conference on Advances in Computer Engineering and Applications (ICACEA) IMS Engineering College, Ghaziabad, India, pp. 565 - 572 on 19-20 March 2015, ISBN- 978-1-4673-6911-4-WEB OF SCIENCE).
11. Niranjana Lal, "Detailed Dominant Approach Cloud Computing Integration with WSN" is presented in 9th International Conference on Heterogeneous Networking for Quality, Reliability, Security, and Robustness, published in Springer Digital Library, *Lecture Notes of the Institute for Computer Sciences, Social Informatics, and Telecommunications Engineering*, Volume 115, January 11–12, 2013.

Conference Paper's Other Indexing

1. Sangam, Niranjana Lal, Manoj Diwakar "Texture Extraction in Video Tracking with Comparison of LBP and DWT" Presented in World Conference on Advances in Communication & Control System (CACCS) at DIT University pp. 369-374, Published by Atlantis Press, on 6th – 8th April 2013.
2. Pratibha, Niranjana Lal, Manoj Diwakar "Text Security using 2D Cellular Automata Rules" Presented in World Conference on Advances in Communication & Control System (CACCS) at DIT University, pp. 363-368, Published by Atlantis Press, 6th – 8th April 2013.
3. Paridhi Singhal, Niranjana Lal, Manoj Diwakar "Providing Security to Cloud Computing through MAC" Presented in World Conference on Advances in Communication & Control System (CACCS) at DIT University, (pp. 671-675), on 6th – 8th April 2013.
4. Niranjana Lal, S. Qamar "Dataspace Approach and Ranking Algorithms for Information Retrieval "presented in National Conference on Electronics, Communication & Information Systems & Student Symposium NCECIS3 (Organized by Dept of ECE, NIET, Greater Noida), 16-17 March' 2013.

Journal Publications SCI

1. Niranjana Lal*, Ambuj Agarwal, Gulista Khan, S. Qamar, "Localization and correction of location information for nodes in UWSN-LCLI", Advances in Engineering Software, Volume 173, 2022, 103265, ISSN 0965-9978, <https://doi.org/10.1016/j.advengsoft.2022.103265> (SCI- IF-4.25).

Journal Publications Scopus

1. Vishal Sharma, Niranjana Lal, Anand Sharma, "Performance Evaluation Using Throughput and Latency of a Blockchain-Enabled Patient Centric Secure (BEPCS) and Privacy Preserve EHR based on IPFS" Int. J. of Grid and Utility Computing, Inderscience. (Accepted on 9th July 2023).
2. Singh, M., Pandey, S., Saxena, R. et al. CQFaRAD: Collaborative Query-Answering Framework for a Research Article Dataspace. Int. j. inf. tecnol. (2023). <https://doi.org/10.1007/s41870-023-01518-x>. (Springer Scopus)
3. Vishal Sharma, Niranjana Lal, Anand Sharma, "Comparative Study of Proposed Blockchain and IPFS integrated Patient Electronic Health record System" , Eur. Chem. Bull. 2023, 12(Special Issue 4), 137-145.
4. Niranjana Lal, Aayushi Agarwal, Md Iqbal, Baldivya Mitra, Vimal Kumar, "Hybrid CNN-BILSTM-Attention Based Identification and Prevention System for Banking Transactions",
5. Niranjana Lal, Avni Singhal, Vimal Kumar, "Detection of Diabetic Retinopathy using Machine Learning",
6. Niranjana Lal, Pooja Baliyan, Pradeep Pant, Baldivya Mitra, Vimal Kumar, Hybrid Classification Method for Sentiment Analysis"
7. Niranjana Lal, Pragya Rajvanshi, Ajay Kumar Singh, "Amalgamated Approach of Instance and Probability-Based Classification for Alzheimer Detection",
8. Niranjana Lal, Shamimul Qamar "Power Efficient Data Collection in Wireless Sensor Networks" International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-6C, pp. 133-137, April 2019.
9. Niranjana Lal, Mrityunjay Singh, Shashank Yadav "Rule-Based Wrappers for a Dataspace System" International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-6C, pp. 80-90, April 2019.

10. Niranjan Lal, Shamimul Qamar, Savita Shivani, "Search Ranking for Heterogeneous Data over Dataspace", Indian Journal of Science and Technology Volume 9, Issue 36, pp.1-9, 2016.

Journal Publications ESCI (WoS)

1. Niranjan Lal and Vishal Sharma "A novel comparison of consensus algorithms in blockchain" Advances and Applications in Mathematical Sciences (ISSN 0974-6803), VOLUME 20, ISSUE 1, PAGES 1-13, NOVEMBER 2020.
2. Niranjan Lal, S Qamar, Mrityunjay Singh" Internet-ware cloud computing Challenges" International Journal of Computer Science and Information Security (IJCSIS)- 1947-5500, Vol. 7, No. 3, pp. 206-210, March 2010.

Journal Publications UGC/UGC-CARE

1. Niranjan Lal and Vishal Sharma "A novel comparison of consensus algorithms in blockchain" Advances and Applications in Mathematical Sciences (ISSN 0974-6803), VOLUME 20, ISSUE 1, PAGES 1-13, NOVEMBER 2020(UGC-CARE).
2. Niranjan Lal, Harshi Garg, "Clustering Analysis of Heterogeneous Data Using Hybrid Clustering Algorithms" International Journal for Science and Advance Research in Technology (IJSART), Volume: 4, Issue: 5, pp.13-18, 2018(UGC).
3. Niranjan Lal, Navneet Kaur "Clustering of Unstructured data in big data with Hadoop" International Journal of Latest Trends in Engineering and Technology (IJLTET), Special issue, pp.5-8, 2018(UGC).
4. Niranjan Lal, Shamimul Qamar, Savita Shivani, "Information Retrieval and Query Ranking of Unstructured Data in Dataspace using Vector Space Model", International Journal on Future Revolution in Computer Science & Communication Engineering. Volume: 4 Issue: 1, pp.17-24, 2018 (UGC).

Journal Publications Google Scholar/DBLP/ACM Computing Reviews/Other Indexing

1. Lal. N and Sharma. A (2020). Impact of COVID-19 Pandemic in Daily Life. International Journal of Indian Psychology, 8(2), 158-165. DIP:18.01.219/20200802, DOI:10.25215/0802.219. (Google Scholar)
2. Niranjan Lal "Research Challenges for Dataspace System and Big Data Using Artificial Intelligence" Mody University International Journal of Computing and Engineering Research, Volume 3, Issue 1, 2019.
3. Niranjan Lal, Bhagyashree Pathak, "A Survey on Clustering Methods in Data Mining", International Journal of Computer Applications (0975 – 8887) Volume 159 – No 2, February 2017. (Google Scholar)
4. Niranjan Lal, Bhagyashree Pathak, "Mining of Unstructured Data with Clustering Approach" International Journal of Engineering & Management Technology (2348-4039), Volume 3, Issue-6, pp. 65-72, November-2016.
5. Niranjan Lal, Samimul Qamar, Savita Shiwani "Information Retrieval System and challenges with Dataspace" published in International Journal of Computer Applications (0975 – 8887), Foundation of Computer Science (FCS), NY, USA, Volume 147 - Number 8, pp.23-28, 2016. (Google Scholar)
6. Nootan Verma, & Niranjan Lal. (2015). A Novel survey on Scheduling Algorithms on CloudSim in Cloud Environment. International Journal of Engineering Research And, V4(04). doi:10.17577/ijertv4is041123
7. Niranjan Lal, Pratibha Sharma, Manoj Diwakar "Edge Detection using Moore Neighborhood" is published in International Journal of Computer Applications, Foundation

of Computer Science (FCS), NY, USA (0975 – 8887) Volume 61– No.3, January 2013 (pp.26-30). (Google Scholar)

8. Niranjana Lal "A novel survey on Cloud Computing Issues" is published in International Journal of Computer Information Systems (IJCIS), Vol. 1, No. 2, Sep. 2010(pp. 18-21)
9. Niranjana Lal, and Mrityunjay Singh "Java Remote Method Invocation with GSS in Distributed systems "International Journal of Computational Intelligence Research (IJCIR), Vol.6, No.3 (July-December) 2010 (PP.395-404), Indexed in ACM Computing Reviews and DBLP.(Google Scholar)
10. Mrityunjay Singh, Niranjana Lal, "A Tree Based Routing Protocol for Mobile Sensor Networks (MSNs)" International Journal on Computer Science Engineering (IJCSE) Vol. 02, No.01S, 2010, (pp. 55-60), Indexed in DBLP. (Google Scholar)

PATENTS

Title of the Invention: “*DAISTS- Dual-Axis Intelligent Solar Tracking System: Dual Axis (360^{0D}) Intelligent Solar Tracking Using Artificial Intelligent and Machine Learning System*”

Patent Application: 202011055332

Date of Filing: 19/12/2020

Date of Published: 24/06/2022

Name of Patent Applicants and Inventor: Dr. Niranjana Lal, Mr. Shobhit Mani Tiwari, Mr. Surya Bhushan Dubey, Mr. Devbrat Khare, Dr. Priyanka Dahiya, Prof. (Dr.) Anil Kumar

Title of the Invention: *SYSTEM FOR MATERNAL MONITORING*

Patent Application: 202311000375

Date of Filing: 03/01/2023

Date of Published: 13/01/2023

Name of Patent Applicants and Inventor: Sarvesh TANWAR, Medini GUPTA, Dimple NAGPAL, Surya Narayan PANDA, Niranjana LAL

AUTHORED BOOK/ EDITED BOOKS

- 1 Niranjana Lal "Security Enhancement of Java RMI in Distributed Systems" First Edition, LAP Lambert Academic Publishing ISBN (978-3-659-52421-9), 2014.
- 2 Dr. Niranjana Lal, “Internet of Things Applications for Sustainable Development”, CRC Press, Taylor & Francis Group. <https://www.routledge.com/Internet-of-Things-Applications-for-Sustainable-Development/Lal-Qamar-Agarwal-Agarwal-Verma/p/book/9781032128986#>

AWARDS AND ACHIEVEMENTS

Performance Excellent Award, Global Education Leadership award), 2019 and 2022, by Life Way Tech India (An enterprise registered under MSME, Govt. of India).

Excellent Researcher Award, Global Education Leadership award (GECL-2018), December 23, 2018, by Life Way Tech India

GOLD Level Faculty Partner Award 2018, Infosys Ltd, Chandigarh, India

Award of Honor, Second International Conference on Advances in Computing and Data Sciences (ICACDS 2018), Uttaranchal University, Uttarakhand, India, April 20-21, 2018

Bronze Level Faculty Partner Award 2017, Infosys Ltd, Chandigarh, India

Awarded cash prizes, Scoring 95% above Results of B.Tech students in UPTU, By AKGEC, 2007-08

First prize in chess, and Second Prize in Snooker, LIET Alwar, Rajasthan, 2010
Microsoft Technical Associate (MTA) certified.
GATE Qualified- Year 2005, 2006 & 2012

Associate Editor- International Journal of Information Retrieval Research (IJIRR), IGI Global, Hershey, Pennsylvania, USA (ESCI). 2020 to Present. <https://www.igi-global.com/journal/international-journal-information-retrieval-research/1178>

Editorial Board member, Blue Eyes Intelligence Engineering and Sciences Publication, <https://www.blueeyesintelligence.org/committee-2020/>

Editorial Board member, Lattice Science Publication (LSP), <https://www.latticescipub.com/committee/>

Associate Board Member, "International Journal of Computer Trends & Technology – IJCTT" UGC Approved Journal- <http://www.ijcstjournal.org/board-members.html>

Expert Talk, "ADVANCED MICROSOFT® EXCEL® TECHNIQUES", During staff Development Program (SDP), organized by CSE department, SRM IST, Delhi NCR- Campus, Modinagar, Ghaziabad UP, India on 30th April 2022.

Invited Talk, "IoT and Data Analytics in Healthcare Systems", FDP on "Applications of Data Science and IoT in Healthcare, Social Care and Business Aspects" from 2nd to 8th Feb 2022 at Glocal University, Saharanpur, UP, India.

Expert Talk, "R Tutorial for Beginners: Learn R Programming Language", Students of Skema Business School, Business School in Lille, France, 22nd and 23rd February 2021 (Online).

WORKSHOPS/SEMINARS/FDPS

ATTENDED- WORKSHOPS/SEMINARS/FDP/FEP/WEBINARS/REFRESHER COURSES

Faculty Development Program (FDP), One week Faculty Development Program On "Emerging Trends and Applications of Machine Learning Based Artificial Intelligence" SRM Institute of Science and Technology, Delhi-NCR Campus, Modinagar, Ghaziabad from 20th Feb to 25th Feb 2023.

Lecture Series on "Nonlinear Dynamics and Applications" organized by the Department of Mathematics, Indian Institute of Technology Indore, INDIA, during 13-16th February, 2023.

Faculty Development Program (FDP), One week Faculty Development Program On "Digital Tools for Teaching and Learning" Organized by the Media Engineering Department NITTTR Chandigarh, India from 25th July to 29th July 2022.

Faculty Development Program (FDP), 6-Days Faculty Development Program On "IoT and Wearable Devices for Smart City Infrastructure" Organized by the SRM IST Delhi NCR Campus Ghaziabad from 20th June to 25th June 2022.

Faculty Development Program (FDP), 6 days Faculty Development Programme on "Data Analytics with R Programming" organized by the Department of Corporate Secretaryship and Accounting & Finance, CSH, SRM Institute of Science and Technology Kattankulathur from 22nd June to 27th June 2022.

Faculty Development Program (FDP), One Week Faculty Development Programme on "Data Analytics and its Research Perspectives" Organized by the Department of CSE/ IT, Jaypee University of Information Technology, Wagnaghat, Solan in hybrid mode from 6th June 11th June 2022.

Faculty Development Program (FDP), One Week Faculty Development Programme on "Contemporary Trends and Approaches of English Language Teaching & Soft Skills", SRM Institute of Science & Technology (Deemed to be University) Delhi-Meerut Road, Modinagar, Ghaziabad, (U.P.) India, from 16th May to 21st May, 2022.

Faculty Development Program (FDP), One Week Faculty Development Programme on “Advanced Security Analytics and Machine Learning”, SRM Institute of Science & Technology (Deemed to be University) Delhi-Meerut Road, Modinagar, Ghaziabad, (U.P.) India, from 18th April to 23rd April 2022.

Workshop, One-day ISEA workshop on “Information Security Research Trends and Awareness” Organized by IIT Guwahati under ISEA- Project Phase II hosted by Department of CSE, SRM IST, Delhi NCR campus on 25th March 2022.

Faculty Development Program (FDP), One Week Faculty Development Program on “Research Trends in Data Analytics, Information Security and its Applications” Department of Computer Science and Engineering, Chandigarh University, Mohali, from 9th March to 13th March 2022.

Faculty Development Program (FDP), 5 Days Global E-FDP on “Unleashing Research Potential: Global Trends and Practices” Organised by Office of International Relations, Galgotias University, Greater Noida, Uttar Pradesh held from 7th March to 11th March 2022.

Faculty Development Program (FDP), One Week Faculty Development Program on “Quantum Computing: Challenges and Opportunities” Organised by Meerut Institute of Engineering & Technology, Uttar Pradesh held from 28th Feb to 05th March 2022.

Train The Trainer (TTT) Program, Infosys Pvt. Ltd, 21st September to 23rd September 2021.

Faculty Development Program (FDP), One Week Faculty Development Program on “Data Analysis Using Advanced Excel” E & ICT Academy, IIT Kanpur (A Joint Initiative of MeitY & IIT Kanpur) 20th July to 24th July 2021.

Faculty Development Program (FDP), One Week Faculty Development Program on “Artificial Intelligence and Machine Learning” (Organized in association with IEEE Rajasthan Subsection), 21 June to 25 June 2021, Sir Padampat Singhania University, Udaipur-Chittorgarh Rd, Bhatewar, Rajasthan, India.

Workshop, "Software Testing", organized by Anand International College of Engineering, Jaipur, Rajasthan, from 1-5 February 2021 (Online).

Refresher Program "Modern Pedagogy for Teaching and Research Methods" AICTE-ISTE Sponsored Refresher Program from 2-7 Nov 2020 (Online).

Faculty Development Program (FDP), "ICT Tools for Teaching Learning Process" under Scheme of financial assistant for setting up of Electronics and ICT academics, Ministry of Electronics and Information Technology (MeitY), Government of India with Excellent Grade by NIT Patna and MNIT Jaipur 10-21 August 2020 (Online).

Faculty Enablement Program (FEP), "DBMS using INFYTQ Platform", Database Management System, Infosys Certification Model 22- July 24, 2020 (Online).

Faculty Enablement Program (FEP), "Basics of Python, OOP using Python, Infosys Certification Mode" by Infosys under their TQ program 22-29 June 2020 (Online).

Webinar "Impact of COVID-19 Pandemic Lesson & the way forward" by the Global Pharmaceutical Industry and IP Moment on May 6, 2020 (Online).

Faculty Development Program (FDP) "Entrepreneurship Development" under DST-NIMAT Project, Govt. of India at SET, Mody University of Science and Technology from March 02-14, 2020.

WORK EXPERIENCE

Name and Address of Employer	Position	From	To
SRMIST, Delhi NCR campus, Ghaziabad UP, India	Associate Professor & Head (CSE-DSBS)	Jan 2022	Present
CSE, UIE, Chandigarh University, Mohali, Punjab, India	Associate Professor	Nov 2021	Jan 2022

CSE, School of Engineering and Technology Mody University, Lakshmangarh, Sikar (Raj.)	Assistant Professor	July 2011	Nov 2021
NIT, Kurukshetra (HR.)	Assistant Professor	Jan 2011	June 2011
LIET, ALWAR (RAJ.)	Assistant Professor	July 2010	Jan 2011
SRM University, Modinagar, Ghaziabad (UP.)	Assistant Professor	July 2009	July 2010
AKGEC, Ghaziabad (UP.)	Lecturer	July 2007	July 2009

MEMBERSHIPS

- **ISTE (Indian Society for Technical Education) LM137440- Life Membership**
- **IEEE Senior Member- Membership Number-94564840-Yearly**
- **IACSIT (International Association of Computer Science and Information Technology)- 80338195- Life Time**
- **CSTA (Computer Science Teachers Association)- 41112245- Life Time**
- **IAENG (International Association of Engineers)-137785- Life Time**

RESPONSIBILITIES HELD

- Deputy Head of Department CSE
- Time Tabel Coordinator,
- NAAC Member and SPOC (Criteria 4)
- NBA Team Member
- Class Counselor
- ISTE Coordinator
- Proctorial Board Member
- Research Lab Convener
- Central Library Member