

Dr. Hari Singh

Assistant Professor (Sr. Grade),
CSE/IT Department,
Jaypee University of Information Technology,
Waknaghat, Solan, Himachal Pradesh



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➤ Academic Qualifications:

Ph.D. (CSE), “A Grade”, Thapar University, Patiala, Punjab, 2017.
M.Tech (CSE), GNDEC, Ludhiana affiliated to PTU, Jalandhar, 2008.
B.Engg. (CSE with Honors), SBMN Engineering College, Rohtak, affiliated to MDU, Rohtak, 2001.
10+2 (Non-Medical), DAV Public School, affiliated to CBSE, Panipat, 1996.
Matric, PTPS High School, Thermal Colony, Panipat, affiliated to Haryana Board, 1994.

➤ Work Experience: 20+ years

Assistant Professor (Sr. Grade) : July 23, 2018 to till date at JUIT, Waknaghat, Solan, Himachal Pradesh.
02 years at Panipat Institute of Engineering & Technology, Samalkha, Panipat, Haryana (July 2016 - July 2018).
15 years at N.C. College of Engineering, Israna, Panipat, Haryana (September 2001- July 2016)

➤ Consultancy, Funded Projects and Sponsored Research Activities:

1. Team member of one contractual research project on “Inspection of Food Items using Image processing techniques” with Udyog Yantra Technologies LLP, Noida, India of amount INR 2 lacs during December 2019 to December 2020.
2. Successfully completed an AICTE sponsored RPS project “Developing a Grid-GIS Framework for Spatial Data” with File No. : 20/AICTE/RIFD/RPS(POLICY-1)6/2013-14, of worth 3.70 lacs, July 22, 2013 to June 25, 2016, as Principal Investigator along with Co-Investigator, Dr. Seema Bawa, Prof., CSED, Thapar University, Patiala.
3. Successfully completed an “Online Test Application (OTA)” project for conducting MCQ tests of worth around 0.6 lacs in 2013 at NCCE, Panipat.

➤ Subjects Taught at UG/PG Level

Introduction to Statistical Learning, Database Management System, Big Data Analytics, Parallel Programming Techniques, Operating Systems , Computer Networks, Distributed Computing, Cloud Computing, Programming in ‘C’ Language, Security & Cryptography, Automata Theory, Object Oriented Software Engineering, Software Engineering, Unix & Linux Programming , OOPS, Programming Languages, Advanced DBMS, Advanced Computer Networks, Mobile Computing, Data Structure, Soft Computing

➤ Practical Exposures

Machine Learning Libraries on Python, Hadoop and Spark

Distributed & Parallel Computing Frameworks: MapReduce Programming, Hadoop Framework, Spark Framework, OpenMP

Grid-Computing: Globus Toolkit

Data Mining Workbench: WEKA

Operating System:	Unix, LINUX, Windows, MS-DOS
Programming Languages:	Python, R, Java, C/C++
Web Technologies:	HTML, XML, Java Script, Java Servlets, PHP
GUI:	VB6, D2K
Databases:	MS-Access, MySQL, Oracle
Spatial Databases:	GIS and Spatial Extensions with MYSQL, ArcGIS
Integrated Development Environment:	Netbeans, Eclipse, Google Colabs
Document Processing Software:	Latex, WinEdt, Lyx, Mendeley
Competitive Programming Platforms:	HackerRank

➤ **Invited Talks**

1. Delivered an expert lecture on the topic “Machine Learning Regression Problems and Hands-on” at Panipat Institute of Engineering and Technology, Panipat, Haryana on January 22, 2022.
2. Delivered an invited talk in the International Conference on Intelligent Machines (ICIM) on the topic “Parallel Programming Techniques” at Baba Farid College of Engineering & Technology, Bhatinda, Punjab on March 16, 2019.
3. Delivered an expert lecture in the refresher course on “Emerging Trends in Computer Science – Big Data and Hadoop” on January 10, 2018 conducted by Department of Computer Engineering and Department of Information Technology & Computer Applications at YMCA University of Science and Technology, Faridabad during 8-13 January 2018 sponsored by TEQIP III.
4. Delivered a comprehensive talk on Emerging Technologies in the International Conference on “Emerging Technologies” during April 24-26, 2014 at N.C. College of Engineering, Israna, Panipat.
5. Presented a tutorial session on “Big Data Framework Installation” on December 16, 2013 in the Faculty Development Programme on “Recent Trends in Big Data and Cloud Computing”, organized by Department of Information Technology, Indira Gandhi Delhi Technical University for Women, Kashmere Gate, Delhi held on December 16-20, 2013.
6. Presented a technical session in TEQIP-II sponsored workshop on MS-Office at NCCE, organized by CSE Department on October 5, 2013.

➤ **Awards, Honors and Recognitions**

1. Session Chair in the 2021 Sixth International Conference on Image Information Processing (ICIIP 2021) organized by Dept. of CSE&IT at Jaypee University of Information Technology, Wagnaghat, Solan on November 26-28, 2021.
2. Session Chair in the 6th IEEE International Conference on Signal Processing, Computing and Control (ISPCC-2k21), organized by the Electronics & Communication Engineering department of Jaypee University of Information Technology (JUIT), Wagnaghat, Himachal Pradesh, India on Oct (7-9), 2021 in Online Mode.
3. Conference Chair, Session Chair and Reviewer in the 2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC) organized by Dept. of CSE&IT at Jaypee University of Information Technology, Wagnaghat, Solan on November 06-08, 2020.
4. Session Chair in the 2019 Fifth International Conference on Image Information Processing (ICIIP 2019) organized by Dept. of CSE&IT at Jaypee University of Information Technology, Wagnaghat, Solan on November 15-17, 2019.
5. Session Chair and Reviewer in the 2018 Fifth International Conference on Parallel, Distributed and Grid Computing (PDGC) organized by Dept. of CSE&IT at Jaypee University of Information Technology, Wagnaghat, Solan on December 20-22, 2018.
6. Infosys recognized as Bronze partner faculty under “Inspire - The Campus Connect Faculty Partnership Model” for the year 2015.
7. Participated in Distinguished Facilitator of Inspire Faculty Excellence Awards 2015 under the Campus Connect Programme of Infosys at Infosys, Chandigarh Development Center, Chandigarh.
8. Rapporteur in AICTE sponsored National Seminar on Mobile Computing and Mobile Application Development, organized by N.C. College of Engineering technical Campus, Israna, Panipat from March 28-29, 2014.
9. Joint Editor of the Book “Emerging Technologies”, Excel India Publishers, ISBN: 978-93-83842-55-1, for the proceedings of International Conference on Emerging Technologies (ICET-2014) held on April 24-26, 2014 at NCCE, Israna, Panipat.
10. Rapporteur at International Conference on Emerging Technologies (ICET-2014) held on April 24-26, 2014 at NCCE, Israna, Panipat.
11. Certificate on Cloud Computing Fundamentals was awarded for assessment on “Introduction to Cloud Computing and the Aneka Platform (US Patented) on 5th December 2012 by Prof. Rajkumar Buyya, CEO, Manjrasoft Pty Ltd, Australia during the International workshop at Thapar University, Patiala.
12. Cisco certified instructor for Cisco’s CCNA 1&2 module from Center for Research and Industrial Staff Performance (CRISP), at Bhopal in January 2008.

➤ **Papers in Journals**

➤ **Papers in Journals SCI/SCIE (Published/Communicated)**

1. **Hari Singh** and Seema Bawa, “Predicting Covid-19 statistics using machine learning regression models Li-MuLi-Poly”, Multimedia Systems, ISSN-0942-4962, doi: 10.1007/s00530-021-00798-2, 2021 (SCIE). [IF-1.935]
2. **Hari Singh** and Seema Bawa, “An improved integrated Grid and MapReduce-Hadoop architecture for spatial data: Hilbert TGS R-Tree Based IGSIM”, Concurrency and Computation: Practice and Experience, John Wiley & Sons, Vol. 31, Iss. 17, Sept. 10, 2019, ISSN: 1532-0626. (SCIE) <https://doi.org/10.1002/cpe.5202> (SCIE) . [IF-1.536]
3. **Hari Singh** and Seema Bawa, “A MapReduce-based Scalable Discovery and Indexing of Structured Big Data”, “Future Generation Computer System – The International Journal of Grid Computing and eScience,” Elsevier, Netherlands, Vol. 73, pp. 32-43, ISSN: 0167-739X, IF-2016/17 (3.99), doi:10.1016/j.future.2017.03.028 (SCIE).
4. **Hari Singh** and Seema Bawa, “A Survey of Traditional and MapReduce-Based Spatial Query Processing Approaches”, SIGMOD Record, Association for Computing Machinery (ACM), United States, Vol. 46, No. 2, pp. 18-29, ISSN:0163-5808, IF-2016/17 (0.875), doi>10.1145/3137586.3137590, (SCIE).
5. **Hari Singh** and Seema Bawa, “A MapReduce-based Efficient H-bucket PMR Quadtree Spatial Index” Computer systems Science and Engineering, CRL Publishing Limited, England, Vol. 32, No. 5, ISSN: 0267-6192, England English, IF-2016/17 (0.384), doi:10.1109/ICPP.1994.82 (SCIE).

➤ **Papers in Scopus & ESCI Journals(Published/Communicated)**

6. Ankita Taneja, **Hari Singh** and Suresh Chand Gupta, “Stream of Traffic Balance in Active Cloud Infrastructure Service Virtual Machines Using Ant Colony”, International Journal of Cloud Computing, Vol 9, No. 4, pp. 373-396, 2020, ISSN (Online) : 2043-9997, ISSN (Print): 2043-9989, DOI: 10.1504/IJCC.2020.112315, Published January 04, 2021 (Scopus). [IF-0.43]
7. **Hari Singh**, Dinesh Verma and Ravindara Bhatt, “Parallel computing of matrix multiplication in OpenMP supported CodeBlocks”, Advances and applications in mathematical sciences, Mili Publications, Vol. 18, Iss. 8, pp. 775-787, June 2019 (ESCI), ISSN 0974-6803.
8. **Hari Singh** and Seema Bawa, “IGSIM: An Architecture for High Performance Spatial Data Analysis”, International Journal of Computer Science and Information Security (IJCSIS), Vol. 14, No. 11, pp. 302-309, November 2016, ISSN:1947-5500, IF/16-0.519 (Scopus).

➤ **Papers in other reputed journals (Published/Communicated)**

9. **Hari Singh** and Seema Bawa, “Scalability and Fault Tolerance of MapReduce for Spatial data” Global Journal of Engineering Science and Research Management (GJESRM), Thomson Reuter Endnote, 3(8), pp. 97-103, August 2016, ISSN:2349-4506, DOI: 10.5281/zenodo.61147, IF/17-3.779.
10. Saloni Minocha, Jitender Saini, **Hari Singh** and Seema Bawa, “HadoopWeb: MapReduce Platform for Big Data Analysis”, International Research Journal of Engineering and Technology (IRJET), Vol. 3, Iss. 5, pp. 1356-1361, e-ISSN: 2395-0056, p-ISSN: 2395-0072, IF/17-6.171, 2016.
11. Saloni Minocha and **Hari Singh**, “Grid Computing: Review and SWOT Analysis”, International Journal of Engineering and Research, Vol. 5, Iss. 6, pp: 528-530, June 2016. ISSN: 2319-6890(online), 2347-5013(print)
12. Saloni Minocha and **Hari Singh**, “ Mapreduce Technique: Review and SWOT Analysis”, International Journal of Engineering and Research, Vol. 5, Iss. 6, pp: 531-533, June 2016. ISSN: 2319-6890(online), 2347-5013(print), 2016, IF/15-1.01.
13. Manpreet Kaur and **Hari Singh**, “Survey on Search Engine Optimization Techniques to Achieve High Page Rank”, International Journal of Computer Science & Communication Networks, ISSN: 2249-5789, vol. 5, iss. 4, pp. 216-223, September 2015, IF/15-4.182.
14. Manpreet Kaur and **Hari Singh**, “Web Health Analyzer for Search Engine Optimization”, International Journal of Engineering & Technical Research, ISSN: 2321-0869, vol. 3, iss. 8, pp. 30-32, August 2015,IF/15-2.19.
15. Mukti and **Hari Singh**, “An overview of anomalous sub population”, International journal of Engineering and Technical Research (IJETR), ISSN: 2454-4698, Vol. 3, Iss. 8, pp. 8-11, 2015. IF(1.3).
16. Mukti and **Hari Singh**, “Implementation and classification of anomalous detection with varying parameters”, International journal of Research, ISSN: 2348-795X, Vol. 2, Iss. 8, pp. 678-684, 2015. IF(3.5).
17. Richa and **Hari Singh**, “Profit maximization of SAAS by reusing the available VM Space in Cloud Computing”, International Journal of Engineering and Computer Science”, Vol. 4(8), pp. 13822-13827, 2015, ISSN:2319-7242, IF/16(4.091).
18. Richa and **Hari Singh**, “A review of SaaS profit maximization in cloud computing”, International Journal of Computer Science and Information Technologies, Vol. 6(4), pp.3392-3395, 2015, ISSN:0975-9646, IF/15(0.669).
19. **Hari Singh** and Seema Bawa, “Evolution of Grid-GIS Systems”, International Journal of Computer Science and Telecommunications (IJCST), ISSN 2047-3338, Vol. 3, Iss. 3, pp. 36-40, March 2012, IF/15-0.765.

20. Gaurav Gambhir and **Hari Singh Rawat**, “Grid Computing Based Resource Utilization System & Its Performance Evaluation”, Journal of Information System and Communication, ISSN: 0976-8742 & E-ISSN: 0976-8750, Vol 3, Iss. 1, pp. 335-338, 2012, IF/12(1.1).
21. Rahul Rishi, Sukhvir Singh, Amit Kamra and **Hari Singh**, “Software Reliability Estimation With Mission Time Using Moranda’s Geometric Software Reliability Model” in International Journal “Pure and Applied Matematika Sciences, ISSN:0379-3168, Vol. LXVII, No. 1-2, pp. 15-21, March 2008.
22. Rahul Rishi, Sukhvir Singh and **Hari Singh**, “Classification of Software Reliability Models” in International Journal “Pure and Applied Matematika Sciences, ISSN:0379-3168, Vol. LXVII, No. 1-2, pp. 1-12, March 2008.

➤ Book Chapters

1. Dinesh Chander, **Hari Singh**, Abhinav Kirti Gupta “A study of big data processing for sentiments analysis”, IGI Global, Book Chapter Submission: Large-Scale Data Streaming, Processing, and Blockchain Security, Accepted July 2020 (**Scopus**) UK: IGI Global. DOI: 10.4018/978-1-7998-3444-1.ch001 [ISBN : 9781799834441, 1799834441, 9781799834458, 9781799834465] .
2. **Hari Singh**, Richa Vasuja and Reema Sharma, “A Survey of Diversified Domain of Big Data Technologies” for the book titled “Data Intensive Computing Application for Big Data” Vol. 29, pp. 1-27, 2018 published under the Advances in Parallel Computing series by IOS Press BV, Amsterdam, Netherland, ISBN:978-1-61499-813-6 (**Scopus**).

➤ Edited Books

1. **Hari Singh**, Ravindara Bhatt, Prateek Thakral and Dinesh Chander Verma, Proposed CRC Press, Taylor & Francis, Edited Book titled “Data Science for Effective Healthcare Systems”. In Production – Status as of January 2022.
2. Hemraj Saini, **Hari Singh**, Samir Dev Gupta, Pradeep Kumar Gupta, Geetanjali Rathee (2021). 2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC). USA: IEEE. [ISBN : 978-1-7281-7132-6] .
3. **Hari Singh**, Amit Gupta and Nitin Sharma, Joint Editor of the Book “Emerging Technologies”, Excel India Publishers, ISBN: 978-93-83842-55-1, for the proceedings of International Conference on Emerging Technologies (ICET-2014) held on April 24-26, 2014 at NCCE, Israna, Panipat.

➤ Papers published in Conference/Seminar Proceedings

1. Piyush Sewal and Hari Singh, “A Critical Analysis of Apache Hadoop and Spark for Big Data Processing”, 2021 6th IEEE International Conference on Signal Processing, Computing and Control (ISPCC), organized by the Electronics & Communication Engineering department of Jaypee University of Information Technology (JUIT), Wanknaghat, Himachal Pradesh, India on Oct (7-9), 2021 in Online Mode, DOI: 10.1109/ISPCC53510.2021.9609518
2. Himanshu Jindal, **Hari Singh**, Monika Bharti, “Modified Cuckoo Search for Resource Allocation on Social Internet-of-Things”, 2018 5th International Conference on Parallel and Distributed Computing (PDGC-2018) held on 20-22 December 2018 at JUIT, Solan, IEEE Explore (27 June 2019), pp. 465-470, DOI: 10.1109/PDGC.2018.8745772 (Scopus).
3. Mamta Mittal, **Hari Singh**, K.K. Paliwal, Lalit Mohan Goyal, “Efficient Random Data Accessing in MapReduce”, IEEE International Conference on Infocom Technologies and Unmanned Systems (Trends and Future Directions), IEEE Xplore, pp. 552-556, (ICTUS'2017), Dec 18-20, 2017 at Amity University, Dubai, doi: 10.1109/ICTUS.2017.8286070. (Scopus).
4. Hari Singh and Seema Bawa, “Spatial Data Analysis with ArcGIS and MapReduce”, In 2016 IEEE International Conference on Computing, Communication, and Automation (ICCCA), pp. 45-49, IEEE Xplore Digital Library, e-ISBN: 978-1-5090-1666-2, p-ISBN: 978-1-5090-1667-9, doi: 10.1109/CCAA.2016.7813687. (Scopus)
5. Pooja Dahiya and Hari Singh, “A Review Of Big Data Analysis With Hadoop”, In Proceedings of International Conference on Emerging Technologies (ICET-2014), NCCE, Panipat, April 24-26, 2014, Excel India Publishers, ISBN: 978-93-83842-55-1, pp. 281-286.
6. Neha and Hari Singh, “Business Value Of Hadoop, A Review”, In Proceedings of International Conference on Emerging Technologies (ICET-2014), NCCE, Panipat, April 24-26, 2014, Excel India Publishers, ISBN: 978-93-83842-55-1, pp. 276-280.
7. Sanju Verma and Hari Singh, “A Review Of Data Mining Concept On MapReduce”, In Proceedings of International Conference on Emerging Technologies (ICET-2014), NCCE, Panipat, April 24-26, 2014, Excel India Publishers, ISBN: 978-93-83842-55-1, pp. 255-259.
8. Hari Singh and Monica Sehrawat, “Data Aggregation Technique for Sensor Networks,” In proceedings of International Conference on Mathematics and Soft Computing (Applications in Engineering) (ICMSCAE) in collaboration with Indian Society of Information Theory & Applications sponsored by the Department of Science & Technology (DST), Defence Research & Development Organization (DRDO) and Indian Council of Medical Research (ICMR), at NCCE, Panipat, pp. 146-148, December 4-5, 2010.

9. Parvinder Singh Sandhu, Amit Kamra, and Hari Singh, "A Recursive Method for Reliability Computation of Moranda's Geometric Software Reliability Model", In Proceedings of World Academy of Science, Engineering and Technology, Thailand, ISSN: 1307-6884, Vol. 26, pp. 720-725, December 2007
10. Akshay Girdhar, Amanpreet Brar, Amit Kamra and Hari Singh "Digital Vaccine-Network Protection Using IPS Filter," In proceedings of 2nd International Conference on Advanced Computing & Communication Technologies (ICACCT-2007) held on November 03-04, 2007, at Asia Pacific Institute of Information Technology (APIIT) SD India, Panipat, pp. 468-471, ISBN: 81-87433-53-1.
11. Hari Singh, Sukhvir Singh and Gulshan Singla, "Robotics, Automation and Robotic Cooperation," In proceedings of the National Conference on Information Technology: Setting trends in Modern Era, 8th Annual Conference of Indian Society of Information Theory & Applications (ISITA) at NCCE, Israna on March 18-20, 2006, pp. 174-177.
12. Sukhvir Singh, Hari Singh and Gulshan Singla, "IT: solving problems and enhancing performance in education", In Proceedings of National Conference on Information Technology & its Applications, Organized by Bharti Vidyapeeth's College of Engineering, New Delhi, pp. 115-120, April 2006.

➤ **Conference/Seminar –Attended/Papers Presented**

International Conferences/Seminars:

1. Presented "Design of Parallel B-Tree in MapReduce – Hadoop" Innovation & Trends to Support Make in India, held on March 24-26, 2017 at N.C. College of Engineering, Israna, Panipat.
2. Presented "Classification of Software Reliability Models," in 2nd International Conference on Advanced Computing & Communication Technologies (ICACCT-2007) held on November 03-04, 2007 at Asia Pacific Institute of Information Technology (APIIT) SD India, Panipat.
3. Presented "Digital vaccine network protection using IPS filter" in 2nd International Conference on Advanced Computing & Communication Technologies (ICACCT-2007) held on November 03-04, 2007 at Asia Pacific Institute of Information Technology (APIIT) SD India, Panipat.
4. Presented "Software reliability parameter computation using recursion for moranda's geometric software reliability model" in 2nd International Conference on Advanced Computing & Communication Technologies (ICACCT-2007) held on November 03-04, 2007 at Asia Pacific Institute of Information Technology (APIIT) SD India, Panipat.
5. Attended the 3rd International Conference on "Quality, Reliability, and Infocom Technology (Trends and Future Directions)", held on December 02-04, 2006 at Delhi University.

National Conferences/Seminars:

1. Presented "Freedom issues in Cloud Era" in a National Conference on Digital Disruption : The Challenges and Opportunities organized by Department of Management Studies at Panipat Institute of Engineering & Technology, Panipat on June 30, 2017.
2. Presented "Decision support system using classifiers for predicting students' academic performance", in an AICTE sponsored National Seminar on Mobile Computing and Mobile Applications Development organized by N.C. College of Engineering, Israna, Panipat during March 28-29, 2014.
3. Presented "Intrusion Detection Systems and Applications," at National Level Conference on Innovative Computer Technologies, NCCE, Israna, Panipat on June 14, 2011.
4. Presented "Impact of Selfish Node on Adhoc Network: A Comparative study," at National Conference on Advanced Computing and Communication Technology held on June 25-26, 2010 at Vaish College of Engineering, Rohtak.
5. Presented "Reliability Estimation of Computer Networks based on IPsec," at the 11th National Conference of Indian Society of Information Theory and Applications (ISITA) held on October 24-26, 2009 at GGS khalsa College, Sarhali(Tarn-Taran), Punjab.
6. Presented "Selection of services at the network layer on AODV based MANET," at National Conference on Information Security and Networks, organized by the Department of Computer Applications held on June 19, 2009 at Chitkara Institute of Engineering & Technology, Punjab.
7. Presented "An introduction to artificial intelligence & expert systems" at National conference on Futuristic trends in engineering and technology, organized by JCDM college of Engg., Sirsa on January 28-29, 2008.
8. Presented "How to select a software reliability model," at the National Conference on "Advances in Computer Technology and Applications" May 25, 2007 at GGN Institute of Management and Technology, Civil Lines, Ludhiana.
9. Presented "Software Reliability" in AICTE sponsored National Level Seminar on Robotics and Automation held at N.C. College of Engineering, Israna, Panipat during March 30-31, 2007.
10. Presented "Manual Software Testing (A Case Study)," in the AICTE sponsored National Level Seminar on Information Technology : Software Reliability held at NCCE, Israna on 9-10 February, 2007.
11. Presented "IT:Solving Problems and Enhancing Performance in Education", at National conference on Information Technology and Its Applications at Bharti Vidyapeeth College of Engg., Paschim Vihar , New Delhi on 13th-14th April 2006.
12. Presented in a National Level Seminar on IT in Education- Needs, Concerns, Gaps & Solutions at NCCE, Israna, and Panipat on March 25-26, 2006.

13. Presented “Governance for Rural Development”, in the National Level Seminar on “Smart Governance for Rural Development” organized by ITM Gurgaon, on February 17-18, 2006.
14. Attended a National Conference on “Challenges for Technology and Management in the Knowledge Millennium” organized by Jind Institute of Technology, Jind on March 2-3, 2006.
15. Presented “Multi-Robot Cooperation”, in National Conference on Information Technology : Settings Trends in Modern Era, organized by N.C. College of Engineering, Israna, Panipat along with Indian Society of Information Theory & Applications (ISITA) during March 18-20, 2006.

➤ **Workshops/Short Term Courses Attended and Participated**

1. One week FDP on Quantum Computing and Communications: New Paradigms, organized by department of computer science and engineering, SRM University-AP, Andhra Pradesh jointly with CDAC. Bengaluru during December 27-31, 2021 in virtual mode.
2. One week FDP on Big Data and Analytics in online mode during September 20-24, 2021 organized by BNM Institute of Technology, Bangalore and sponsored by AICTE Training and Learning (ATAL) Academy.
3. Two week FDP on Data Science (AI + ML) (online mode) during February 15-27, 2021 organized by E&ICT Academy, IIT Kanpur (A joint initiative of MeitY & IIT Kanpur).
4. One week FDP on Advanced Excel with Data Visualization (online mode) during January 11-16, 2021 organized by E&ICT Academy, IIT Kanpur (A joint initiative of MeitY & IIT Kanpur).
5. Two week FDP on Machine Learning (online mode) during December 28, 2020 to January 08, 2021 organized by E&ICT Academy, IIT Kanpur (A joint initiative of MeitY & IIT Kanpur).
6. One-Week STOC “Recent Advances in Computational Intelligence for Signal Processing (RACISP - 2020)” during August 10-15, 2020 organized by ECE Department of JUIT (Virtual Mode).
7. Two-week FDP on “Data Science for All” under Department of computer science and application of Atal Bihari Vajpayee University, Bilaspur, Chhattisgarh, a remote nodal center identified by IIITDM, Jabalpur (M.P.) during July 27 – August 08, 2020 (Virtual Mode).
8. One-week Faculty Development Program on R sponsored and organized by “Spoken Tutorial by IIT Bombay” in online mode during May 28, 2020 to June 02, 2020.
9. Three-day workshop on “Perception towards IPR”, held on February 10-12, 2020 at JUIT, Wagnaghat, HP.
10. One-week workshop on Emerging areas of research in image processing (ERIP)-2020 organized by the Signal and Image Processing Group, ECE during January 6-12, 2020 at JUIT, Wagnaghat.
11. Successfully completed a MOOC on Basic Programming using Python by FOSSE IIT Bombay during May 1, 2019 to June 15, 2019.
12. One-week FDP on “Recent Trends on Machine Learning for Signal Processing (RTMLS)” organized by the Department of Electronics & Communication Engineering, Jaypee University of Information Technology, Wagnaghat, Solan (HP), during May 20-25, 2019.
13. Successfully completed a twelve weeks MOOC equivalent to 1.5 week AICTE approved FDP on “Parallel Algorithms” from NPTEL organized by IIT Guwahati (January – Apr 2019).
14. Participated in one day LDRA Orientation Workshop at CSE&IT Dept., Jaypee University of Information Technology, Wagnaghat on December 7, 2018.
15. One-week Short Term Course on “Cyber Crimes Forensic Tools” organized by NITTTR Chandigarh, (attended at PIET, Samalkha, Panipat through ICT) under the MHRD Sponsored grant, from February 6-10, 2017.
16. One-week Short Term Course on “PHP and MySQL” organized by NITTTR Chandigarh, (attended at PIET, Samalkha, Panipat through ICT) under the MHRD Sponsored grant, from January 23-27, 2017.
17. One-day state level workshop on “Virtual Labs” an initiative of Ministry of Human Resource Development under the National Mission on Education through ICT in collaboration with IIT, Delhi and conducted at PIET, Samalkha, Panipat on March 29, 2017.
18. One-week Short Term Course on “Cloud Computing” organized by NITTTR Chandigarh, (attended at PIET, Samalkha, Panipat through ICT) under the MHRD Sponsored grant, from December 5-9, 2016.
19. One-week Short Term Course on “Digital Repository and Storage Management” organized by NITTTR Chandigarh, (attended at PIET, Samalkha, Panipat through ICT) under the MHRD Sponsored grant, from August 1-5, 2016.
20. A TEQIP-II sponsored one-week workshop on “Management Capacity Enhancement Programme” for Batch-11 organized by IIM, Indore from January 12-18, 2015 at IIM, Indore.
21. AICTE recognized one-week Short Term Course on “Induction Training Programme through ICT” from February 3-7, 2014 at NCCE, Israna, Panipat organized by NITTTR, Chandigarh.
22. AICTE recognized one-week Short Term Course on “Microcontroller Based Embedded System through ICT” from January 6-10, 2014 at NCCE, Israna, Panipat organized by NITTTR, Chandigarh.
23. A TEQIP-II sponsored three-day Workshop for Computer Science Teachers “Knowledge Incubation for TEQIP” organized by Computer Science Department, IIT Kanpur through MHRD Initiative during 14-16, July 2014 at IIT Kanpur.

24. A TEQIP-II sponsored a two-week FDP program on “Web Applications and Software Development” at NCCE organized by CSE Dept. from December 9-21, 2013.
25. A TEQIP-II sponsored two-day workshop on “Art of Learning & Research Guidelines” at NCCE on October 18-19, 2013.
26. A one-day workshop on “Cisco India Networking Academy Conference and IPv6 Fundamentals” Conference held on September 13, 2013 at Amity University, Uttar Pradesh, Noida.
27. A four-day workshop on “Training and Identification of potential stakeholders/master trainer’s/evaluators on NBA outcome based accreditation process & parameters” held in two phases on April 29, 2013 and May 9-11, 2013 at Thapar University, NBA Nodal Centre, Patiala.
28. A one week workshop on “Faculty Development Program through ICT” organized by NITTR, Chandigarh from April 22 - 26 , 2013 at NCCE, Israna.
29. Three day workshop on “Cloud Computing” in association with Campus Connect, Infosys held on April 2-4, 2013 at UIET, Chandigarh.
30. A TEQIP-II sponsored three-day workshop on “Big Data” in association with Campus Connect, Infosys held on March 21-23, 2013 at NCCE, Israna.
31. A four-day International Workshop on Cloud Computing and High Performance Computing (CCHPC-2012) held on December 5-8, 2012 in Computer Sc. & Engineering Department, Thapar University, Patiala, Punjab.
32. A one-day workshop on the Microsoft Azure Lab Setup based on Cloud Computing held on 26 November 2012 at Microsoft Corporation (I) Pvt. Ltd., DLF Cyber Greens, 9th Floor, Tower A, DLF Cyber City, Sector 25A, Gurgaon.
33. A one-week Campus Connect Faculty Enablement Program on Business Intelligence and Applications held from 2-6 July 2012 at Infosys, the Chandigarh Development Center (DC).
34. A two-day workshop under World Bank Grant for Technical Education Quality Improvement Program II (TEQIP II) on “ Intellectual Property Rights and Management for Engineering & Technology Disciplines” organized by Department of Biotechnology, NCCE held on March 30-31, 2012.
35. A one-day workshop on “Business Intelligence: An Industry Perspective” held on February 24, 2012 at UIET, Punjab University, Chandigarh under the Campus Connect Program conducted by Infosys Technologies.
36. A one-week Faculty Empowerment Workshop, MISSION10X conducted by Dale Carnegie Training and Wipro Technologies and organized by the Department of Humanities and Social Science (HSS) and the Centre for Continuing Education and External Collaboration (CCEEC) on October 4-8, 2010 at NIT Kurukshetra.
37. A one-week National Workshop on Intelligent Systems and Wireless Networks (ISWN-2010) held on 20-24 December 2010 at Bharat Institute of Technology, Sonapat.
38. A two-day workshop on Entrepreneurship Awareness Program (EAP-2010) held on April 29-30, 2010 at N.C. College of Engineering, Israna, Panipat.
39. A two-week workshop organized by CISCO at CRISP, Bhopal for Cisco’s CCNA’s module 1 & 2 in January 2008.
40. An AICTE sponsored workshop on Environment & Pollution Awareness in June 2004 at NCCE, Israna.
41. A workshop organized by YMCA, Faridabad and TTTI, Chandigarh in Chandigarh on March 2004
42. An AICTE sponsored Faculty Development Workshop on July 2003 by NCCE, Israna.
43. An AICTE sponsored workshop on “Environmental Awareness” at NCCE, Israna in December 2002.

➤ **Conferences/Seminars/Workshops Organized**

1. Conference Chair, 6th International Conference “Parallel and Distributed Computing (PDGC-2020)” organized by CSE & IT Department at JUIT during November 6-8, 2020.
2. Coordinator for the three-day workshop on “Basic Programming using Python” organized at Panipat Institute of Engineering & Technology, Panipat and offered by the FOSSEE Project, IIT Bombay funded by National Mission on Education through ICT, MHRD, Govt. of India during July 16-18, 2018.
3. Coordinator for the one day workshop on Cloud Computing held on March 22, 2017 organized by Panipat Institute of Engineering & Technology, Panipat & conducted by Apron Solutions Pvt. Ltd., New Delhi.
4. Convener from CSE Dept. for organizing an International Conference on “Emerging Technologies (ICET-2014)” held on February 20-22, 2014.
5. Coordinated TEQIP-II sponsored workshop on MS-Office at NCCE, organized by CSE Department on October 5, 2013.
6. Organizing member for a three day long TEQIP-II sponsored workshop on BIG DATA in association with Campus Connect, Infosys held on March 21-23, 2013 at NCCE, Israna.
7. Co-convener in the National Level Conference on “Innovative Computer Technologies”, NCCE, Israna, Panipat on June 14, 2011.
8. Organizing member for a National Level Conference for International Journal “Pure and Applied Mathematika Sciences” Vol. LXVII, No. 1-2, March 2008.
9. Organizing member for an AICTE sponsored, National Level Seminar on “Information Technology: Software Reliability” at NCCE, Israna, Panipat on 9-10 February, 2007.
10. Organizing member for an AICTE sponsored, National Level Seminar “IT Education and Industry Needs - Gaps, Concerns, and Solutions” on March 24-25, 2006 at NCCE, Israna, Panipat.

➤ **Co-curricular and Extra-curricular Activities**

1. The Conference Chair of 6th IEEE International Conference (PDGC-2020) organized by CSE & IT department on November 06-08, 2020 at JUIT, Wajnaghat.
2. Travel Chair in ICIIP-2019 International Conference organized by CSE & IT department held on November 15-17, 2019 respectively at JUIT, Wajnaghat.
3. Travel Chair in PDGC-2018 International Conference organized by CSE & IT department held on December 20-22, 2018 at JUIT, Wajnaghat.
4. Active participation in PIET Quest, Carbuncle, and Maestro fests and other departmental programmes at PIET.
5. Faculty co-ordinator from CSE Dept., PIET of the industrial trip to CSIO, Chandigarh on Feb28, 2017.
6. Chief Co-ordinator of Technical Fest, 14-20 March 2016, at NCCE.
7. Coordinator for R & D Centre (CSE & IT) since 2009 – 2012 for supervising Major/Minor Projects of B.Tech and M.Tech students.
8. Member-UMC Committee at NCCE in decision-making in the unfair means cases caught during the examination.
9. Convener-Stage Decoration Committee of Convocation held in April 2011, 2013.
10. Member Awards Committee Convocation): Arrangement of Medals, robes and gowns for the Convocation held in April 2010.
11. Member ISTE and Faculty representative (CSE&IT): organizing technical events under the ISTE banner for CSE Department
12. Member of Student Benefit Fund that provides financial help to financially weak and academically good students.
13. Member of Nidhi Memorial Fund that provides financial help to financially weak and academically good girl students.
14. Faculty Co-ordinator of Industrial trips of students to various places such as CSIO-Chandigarh, Thermal-Panipat, ONGC-Dehradun, Nestle-Samalkha, NFL-Panipat.
15. Volunteer for extending help during natural calamities, such as at the time of the Earthquake in Gujrat, Floods in Utrakhand, etc.
16. Active participation in all the technical and cultural events being organized by the department and institute level.
11. Member Anti-ragging committee at the Institute-level.

➤ **Professional Bodies Membership**

1. Member IEEE (Membership No.: 95126726)
2. Member Computer Society of India, Special Interest Group on Innovation and Entrepreneurship (CSI SIG-IE) since July 2016. This group promotes entrepreneurship and assist in creating and incubating entrepreneurs.
3. Lifetime membership LM 59598 of “The Indian Society for Technical Education (ISTE)” since 2008.
4. Membership No. I1504052 of “Computer Society of India (CSI)” (valid from 16/3/2016 to 15/3/2020) .

➤ **PhD Supervision: 02 undergoing**

➤ **M.Tech Dissertations Supervised: 10 completed**

(Dr. Hari Singh)