

Name : Dr. Neena Gupta

Designation : Professor

Department : Department of Computer Science, Faculty of Science, Kanya Gurukul Campus, Dehradun, Gurukula Kangri (Deemed to be University), Haridwar, Uttarakhand, 249404;

Qualification : Ph.D.(Computer Science), MCA, MA(Mathematics), B.Sc., LL.B., PGDCA

Area of Specialization : Distributed Database, Cloud Computing

Ph. D. Guided : 6 (Awarded).

Teaching Experience : 18 years

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Publications:

1. "A Petri Net Approach for Deciding Least Cost Fragment Access Paths for Optimal Query Processing in Distributed Database Systems" in NETWORKS 2005 Proceedings of the National Conference on Networks and Distributed Systems, 25-26 February, 2005, Hyderabad, pp 308-318.
2. "A PrT-Net Model to Analyze Distributed Database Systems" in Proceedings of the National Conference on Communication & Computational Techniques Current & Future Trends, NCCT-06, Organized by Dehradun Institute of Technology, Dehradun. Feb 10-11, 2006, pp 111-117
3. "Performance Evaluation of Distributed Databases Using Stochastic Petri Nets", IICT-2007, in Proceedings of International Conference on Information & Communication Technology, , Organized by Dehradun Institute of Technology, Dehradun. July 26-28, 2007, pp 138-145.
4. "Performance Analysis of Data Traffic in Networks using Priority Discipline" in International Journal VSRD Technical & Non- Technical Journal, ISSN : 0976-7967, pp 15-24, Vol.II, Issue 1, Jan 2011.
5. "Performance Evaluation of High Speed Network (ATM QUEUE) with Discretionary Priority Jumps", in A Management Journal of SGRITS :Vedaang, ISSN : 0975-7961, pp 74-80, Vol 2, No. 1, Jan-Jul 2011.
6. "A Petri Net Model for Deciding Availability of Most Reliable Cost Effective Fragment Access Path in Distributed Database Systems" in International Journal of Information and Telecommunication Technology IJITT, SRISTE creation publication, ISSN :0976-5972, Vol 2, No. 1 2010, pp 77-85.
7. "Analysis of Technique to Extract Data from the Web for Improved Performance" in Proceedings of International Conference on Methods and Models in Science and Technology ICM2ST-10, 25-26 Dec, 2010, American Institute of Physics 1324, ISBN 978-0-7354-0879-1, ISSN 00934-243X, printed in the United States of America. pp 311-315.
8. "A New Model for Web Pre-fetching Using Popularity-Based Prediction" Proceedings of Annual International Conference on Advances in Distributed and Parallel Computing ADPC-2010, published and organized by Global Science and Technology Forum (GSTF) at Singapore, 1-2

Nov, 2010, ISBN-978-981-08-7656-2 pp R39-R44

9. "Maintaining Strong Cache Consistency Mechanism for Web" in Journal of Information and Operations Management" pp 206-209, Feb 2012, ISSN:0976-7754, E-ISSN:0976-7762, Impact value : ICV:4.72, Vol 3, Issue 1.
10. "Elicit – A New Component Based Software Development Model", in International Journal of Computer Applications (IJCA), pp 53-57, Feb 2013, ISSN:0975-8887, ISBN:973-93-80873-21-6, Vol 63, Number 21, published by Foundation of Computer Science, New York, USA.
11. "Make Web Page Instant : By Integrating Wb-Cache and Web-Prefetching" in Conference on Advances in Communication and Control Systems 2013 (CAC2S 2013) pp 5-8. World Conference on Advances in Communication and Control Systems (CACCS-2013) 6-8th April, 2013, Organized by DIT University, Dehradun at DIT University, Dehradun, UK, April 6-7, 2013, ISBN : 978-90-78677-61-1, ISSN: 1951-6851, url : <http://www.atlantispress.com/publications/aisr/cac2s-13/>
12. "Dynamic Data Allocation in Distributed Database Systems: A Systematic Survey", International Review on Computers and Software (IRECOS), ISSN:1828-6003, Cd-Rom ISSN:1828-6011 Vol 8, No. 2, February 2013.
13. "Non-Redundant Dynamic Data Allocation in Distributed Database Systems", in Special Issue of International Journal of Computer Applications (IJCA), pp 6-10, Nov 2012, ISSN:0975-8887 on Issues and Challenges in Networking, Intelligence and Computing Technologies – ICNICT 2012, Nov 2012.
14. "Web Caching and Web Prefetching: A Survey" ,in National Conference on "Network Security Issues & Resource Optimization" held on Oct 27th – 28th 2012 organized by Department of Computer Application at Graphic Era University, Dehradun.
15. "A New Path Based Reliability Approach for Estimation of Reliability of Component Based Software Development", in International Journal of Computer Science & Engineering (IJCSE), pp 295-299, Nov 2013, ISSN:2319-7323, Vol 2, Number 06, Indexed in Google Scholar, BASE, SCIRUS, DOAJ, Cornell's University Library.
16. "Elite Plus – Component based Software Process Model", in International Journal of Computer Applications (IJCA), pp 1-7, ISSN : 0975 – 8887, ISBN : 973-93-80880-75-9, doi>10.5120/15567-4084, vol 90 – No. 5, March 2014, published by Foundation of Computer Science, New York, USA, Impact Factor .821
17. "An Extended Approach to Non-Replicated Dynamic Fragment Allocation in Distributed Database Systems", in Proceedings of the 2014 International Conference on Issues and Challenges in Intelligent Computing Techniques ICICT, 7-8 Feb 2014, at Ghaziabad, pp 861-865, Organized by Krishna Institute of Engineering and Technology, Ghaziabad India, IEEE Catalog Number CFP1463W-DVD, ISBN 978-1-4799-2899-6.
18. "A Novel Approach to Component-Based Software Testing", in ACM SGSOFT Software Engineering Notes ,Nov 2014, Vol 39, Number 6, DOI :10.1145/2674632.2674640 pp 1-4.
19. "Measurement of the Reliability of a Component-Based Development using a Path-Based

- Approach”, in ACM SGSOFT Software Engineering Notes ,Nov 2014, Vol 39, Number 6, DOI :10.1145/2674632.2674641 pp 1-5.
20. “ A Contemporary Certification Process for Component-Based Development”, Int. J. Computer Technology & Applications (IJCTA),Vol 6 (1),127-132, IJCTA | Jan-Feb 2015Available online@www.ijcta.com, ISSN:2229-6093, pp 127-132.
 21. “Review of Efficient Web Cache Replacement Policies Implemented on Different Types of Proxy-Server”, in International Journal of Electronics, Electrical and Computational System (IJECS), ISSN 2348-117X, Vol 4, Special Issue, Feb 2015, pp 27-37.
 22. “An Extended Efficient Approach to Dynamic Fragment Allocation in Distributed Database Systems” IJCTA, 9(20), © International Science Press 2016, . ISSN : 0974-5572 pp. 473-482. UGC SERIAL NO.: 2003
 23. “A Survey on Web Personalization Approaches through Web Mining” in International Journal of Control Theory and Applications, ISSN : 0974-5572 @ International Science Press, Vol.10, No.14, 2017pp 135-143.
 24. “Clustered Approach to Dynamic Data Allocation in Distributed Database Systems” in International Journal of Advanced Research in Computer Science (IJARCS), Vol 8, No.5 EISSN: 0976-5697 May-Jun-2017 pp 2046-2052 (ICI)
 25. “ Web Documents Prioritization Using Iterative Improvement “, in Conference Proceedings, International conference on Next Generation Computing Technologies, pp 459-473, , 2017, Third International Conference, NGCT 2017, Dehradun, India, October 30-31, 2017 and published as a book chapter by Springer Nature Singapore Pte Ltd. 2018 (part of [Communications in Computer and Information Science](#) book series (CCIS, volume 827).
 26. “Empirical Evaluation of Threshold, Time,Volume, and Distance Constraint Algorithm for Redundant and Non-Redundant (TTVDCA-RNR) Dynamic Data Allocation in Distributed Database Systems”,in International Journal on Computer Science and Engineering (IJCSE), Vol. 10 No.1 Jan 2018, e-ISSN : 0975-3397p-ISSN : 2229-5631pp 32-37 (ICI).
 27. “ Preprocessing and Classifying Web Text Data for E-learning Recommendation “ in International Journal of Computer Sciences and Engineering (IJCSE), Vol.-6, Issue-6, June 2018, E-ISSN: 2347-2693, pp 851-859, UGC listed S.no. 305, J.No. 63193
 28. “ Survey on Image Segmentation Techniques using Traditional and Soft Computing Techniques “ in International Journal of Computer Sciences and Engineering (IJCSE), Vol.06 , Special Issue.05 , pp.85-90, Jun-2018, June 2018, E-ISSN: 2347-2693, pp 851-859, UGC listed S.no. 305, J.No. 63193
 29. “ Risk Analysis in Software Systems “ in International Journal of Computer Sciences and Engineering (IJCSE), Vol.06 , Special Issue.05 , pp.111-114, Jun-2018, June 2018, E-ISSN: 2347-2693, pp 851-859, UGC listed S.no. 305, J.No. 63193
 30. “ Web Usage Mining: Dynamic Methodology to Preprocessing Web Logs”, in Helix, The

scientific Explorer, Vol. 8(5);, DOI 10.29042/2018-3810-3815, Web of Science, pp-3810-3815, Aug-2018

31. "Recommendation for Learners in E-Learning System" in International Conference on Next Generation Computing and Information Systems, ISBN Information: Electronic ISBN: 978-1-5386-4205-4 Print on Demand(PoD) ISBN: 978-1-5386-4206-1 978-0-7695-6361-9/17 \$31.00 © 2017 IEEE DOI 10.1109/ICNGCIS.2017.858 Nov 2018
32. " Comparison of Meta-heuristic Algorithms for Web Link Prioritization", in International Journal of Computer Sciences and Engineering (IJCSE) open access, Vol.-7, Issue-6, June 2019E-ISSN: 2347-2693,pp 319-324 UGC listed S.no. 305, J.No. 63193
33. "Analysis of Cloud Computing Vulnerability against DDoS" Oct-2019International Conference on Innovative Sustainable Computational Technologies (CISCT). IEEE, 2019. Available at: <https://ieeexplore.ieee.org/document/9008147>
34. , " E-Learning Recommender System for Learners: A Machine Learning based Approach", in International Journal of Mathematical, Engineering and Management Sciences Vol. 4, No. 4, Scopus Indexed , Web of Science 957–967, Aug-2019pp-957-967. <https://dx.doi.org/10.33889/IJMEMS.2019.4.4-076>
35. " Image Segmentation using Improved Genetic Algorithm", International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9 Issue-1, October 2019, Published By: Blue Eyes Intelligence Engineering & Sciences Publication, Retrieval Number: F9063088619/2019@BEIESP DOI: 10.35940/ijeat.F9063.109119, Scopus Indexed , pp 1784-1792
36. "Analysis of Cloud Computing Vulnerability against DDos" Feb 2020 International Conference on Innovative Sustainable Computational Technologies (CISCT), IEEE Xplore, Electronic ISBN:978-1-7281-2443-8, Print ISBN:978-1-7281-2442-1

Print on Demand(PoD) ISBN:978-1-7281-2444-5 Dehradun, India
37. "Cumulative Histogram based Dynamic Particle Swarm Optimization Algorithm for Image Segmentation", Indian Journal of Computer Science and Engineering (IJCSE)e-ISSN : 0976-5166 p-ISSN : 2231-3850, Vol. 11 No. 5 Sep-Oct 2020, DOI : 10.21817/indjcse/2020/v11i5/201105183Scopus Indexed. pp 557-567
38. "Security Threats and Recent Countermeasures in Cloud Computing" in Modern Principles, Practices, and Algorithms for Cloud Security. IGI Global, 2020. 145-161. Available at: <https://www.igi-global.com/chapter/security-threats-and-recent-countermeasures-in-cloud-computing/238906>
39. "Defense mechanisms against DDoS attack based on entropy in SDN-cloud using POX controller", in Telecommunication Systems, Vol.:(0123456789) Springer Link, thomosreuterss.n. 6816, Impact Factor 2.336, 3 Jan 2021, <https://doi.org/10.1007/s11235-020-00747-wSCI> ISSN:1018-4864E-ISSN:1572-9451
40. "Segmentation of Covid-19 Affected X-Ray Image using K-means and DPSO Algorithm", in

International Journal of Mathematical, Engineering and Management Sciences, Vol. 6, No. 5, 1255-1275, 2021, ISSN: 2455-7749, Scopus Indexed , Web of Science

41. "Supervised Machine Learning Algorithms Based on Classification for Detection of Distributed Denial of Service Attacks in SDN-Enabled Cloud Computing" in book *Cyber Security, Privacy and Networking*, Springer, Singapore. Pp 165-174, May 2022, Print ISBN978-981-16-8663-4, Online ISBN978-981-16-8664-1, DOIhttps://doi.org/10.1007/978-981-16-8664-1_15
42. "Defensive mechanism against DDoS attack based on feature selection and multi-classifier algorithms" in *Telecommunication Systems*, Published: 14 December 2022
Volume 82, pages 229–244, Impact Factor 2.336,, Feb 2023, SCI
43. "Segmentation of Image Using Hybrid K-means Algorithm" in book *Cyber Security, Privacy and Networking*, Springer, Singapore. pp 369–377, May 2022, Print ISBN978-981-16-8663-4, Online ISBN978-981-16-8664-1, DOIhttps://doi.org/10.1007/978-981-16-8664-1_32
44. "Strength and Limitations of Publicly Available Anti-Malware Tools Against Obfuscated Malware", in 5th International Conference on Inventive Research in Computing Applications (ICIRCA 2023) IEEE Xplore , ISBN: 979-8-3503-2141-8,
45. "Prediction of variants of DDoS attacks based on statistical analysis and machine learning algorithms", in *Int. J. Innovative Computing and Applications*, Vol. 15, No. 1, Dec 2024, pp 14-25
46. "Comparative Analysis of Data Sets for Developing and Evaluating Defensive Mechanisms Against Distributed Denial of Service Attack" in proceeding of International Conference on Smart Systems and Advanced Computing (SysCom 2022), pp 63-69, March 2025, Part of the book series: *Advances in Intelligent Systems and Computing* ((AISC,volume 1451)), Springer, Cham

Workshop/Seminar/Conference attended/presented paper:

1. **Orientation Program** from UGC Academic Staff College, Kumaun University, Nainital, 28th May to 24th June 2010.
2. **Refresher Course** from UGC Academic Staff College, Kumaun University, Nainital, 09th Sept to 29th Sept 2010.
3. Presented paper "**Cloud Computing Impact on Environment**", at *National Seminar on Research Methods in Forestry and Climate Change*, organized by Department of Forestry and Environment Science, Kumaun University, Nainital, **17-18 Sept 2010**.
4. presented paper "**A New Model for Web Pre-fetching Using Popularity-Based Prediction**" *Proceedings of Annual International Conference on Advances in Distributed and Parallel Computing ADPC-2010* organized by Global Science and Technology Forum (GSTF) at Singapore, **1-2 Nov, 2010**.
5. presented paper "**Analysis of Technique to Extract Data from the Web for Improved Performance**" in *International Conference on Methods and Models in Science and Technology*

ICM2ST-10, 25-26 Dec, 2010, American Institute of Physics.

6. Presented research paper titled “ **Maintaining Strong Cache Consistency Mechanism for Web** ” in International Conference on Recent Advances in IT & IT Management (RAITM’12) on **28-29 February, 2012** at SGRRITS, Dehradun.
7. Presented research paper titled “ **Analysis of Maintaining Strong Cache Consistency Mechanism for Web** ” in the National Seminar on “Innovations and Applications in Engineering & Applied Sciences” (IAEAS-2011) held on 9th-10th **Nov 2011**, at Faculty of Engineering and Technology, Gurukul Kangri Vishwavidyalaya, Haridwar.
8. Attended AICTE sponsored one week Staff Development Program SDP on “**Teaching Methods and Pedagogy for Successful Technical Educators**” on 2nd – 8th **July 2012** at Swami Darshanand Institute of Management and Technology (SDIMT), Haridwar.
9. Presented research paper titled “**Non-Redundant Dynamic Data Allocation in Distributed Database Systems**”, in 2nd International Conference on “ Issues and Challenges in Networking, Intelligence and Computing Technologies” – ICNICT 2012, Nov 2012 held on 7th – 8th **Sep 2012** Organized by Krishna Institute of Engineering & Technology, Ghaziabad.
10. Attended and Chaired a session in National Conference on “**Network Security Issues & Resource Optimization**” held on **Oct 27th – 28th 2012** organized by Department of Computer Application at Graphic Era University, Dehradun.
11. Presented research paper titled “**A Small Road Map of Component Based Software Development**” in National Conference on Contemporary & Futuristic IT – Initiatives & Interventions held on 30th – 31th **March, 2013** at Doon University, Dehradun.
12. Presented research paper titled “**Certification Process models for C.B.S.E. (Component Based Software Engineering)**” in National Conference on Leveraging Technologies for Re-scripting Higher Education held on 16th **Nov 2013**, Organized by School of Computer Science & Information Technology, Uttarakhand Open University at Doon University, DDun, Uttarakhand.
13. As a speaker, attended a National Conference on “**Future Trends in Communication & Computation Techniques (NCCT 2013)**” Organized by Department of Computer Science & Engineering, Selaqui Academy of Higher Education In association with Uttarakhand Technical University, Dehradun Held on 22nd **November 2013**.
14. Attended National Workshop on “**Statistical Techniques in Research**” Organized by School of Computer Science & Information Technology, Uttarakhand Open University jointly with IT Cell, Doon University at Doon University, Dehradun, Uttarakhand, held on 22nd **December, 2013**.
15. Presented a paper titled “**Role of Information Technology in Carbohydrates**” in International Conference on Challenges In Chemistry and Biology Of Carbohydrates held on 20th-22th **Jan 2014**, organized by Association of Carbohydrates Chemists & Technologists (INDIA) at Hotel Sun Park Inn, ITBP Road, Near Petrol Pump, Dehradun.
16. Attended National Workshop on “**Health Awareness**” Organized by Department of Management Studies, Kanya Gurukul Campus, Dehradun in collaboration with Red Ribbon Club, USACS and Sara Group of Industries, Dehradun on 12-13 **March 2014**.
17. Presented research paper titled “**Review of Web Cache Replacement Policies**” in International Conference on Soft Computing Techniques for Engineering & Technology – 2014, **Aug 7-8, 2014**, (ICSCTET – 2014) Organized by School of Computing & Department of Allied Sciences at Graphic Era Hill University Bhimtal Campus, Nainital, Uttarakhand, India.
18. Attended **Special Summer School on Research Methodology** (Inter Disciplinary) equivalent to Refresher Course, held from **12.05.2014 to 31.05.2014** (3-weeks), at UGC-Academic Staff College, Himachal Pradesh University, Summer Hill, Shimla (H.P.)
19. Attended one week workshop on “**Gender Sensetization**” at ASC Nainital, Kumaun University, Nainital from **7th June to 13th June 2017**.
20. Presented Research paper title “**An Extended Efficient Approach to Dynamic Fragment Allocation in Distributed Database Systems**” in International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCESM2016), **09-10 Sep**

- 2016** organized by SN Education Society, India and URGCEE, USA and hosted by Hierank Business School, Noida.
21. Attended UGC-Sponsored **Short Term Course in MOOCs and OER** from **08 June to 14 June 2018 (one week)** at UGC, HRDC, Kumaun University, Nainital (Uttarakhand).
 22. Presented research paper title “ **Risk Analysis in Software Systems**”, in National Conference on Emerging Trends in Computing, organized by Department of Computer Science & Engineering at Graphic Era Deemed to be University, Dehradun on **May 12, 2018**.
 23. Attended Two Days Workshop on Wordpress and SEO on **Feb 2019** as a Member of Organizing Committee at Department of Computer Science, Gurukul Kangri Vishwavidyalaya, Haridwar.
 - 24.. Presented paper title “**Impact of Cloud Computing and its Security in Education System**” at UCOST sponsored One day National Seminar on ‘ National Education Policy: Various Aspects & Perspectives’ (MHRD, Govt. of India initiative) on **28th Sept 2019** at MKP(PG) College, Dehradun.
 25. Attended International Conference on **Innovative Sustainable Computational Technologies(CISCT-2019)** on 11-12th October at Graphic Era Deemed to be University, India.
 26. Attended Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.
 27. Attended “Professional Advancement Program for Indian Women Researchers in STEM” organised at School of Physical Sciences, Doon University, Dehradun, sponsored by Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Government of India during June 02-03, 2022.
 28. Attended FDP Professional Development Programme “Talentnext” by Wipro 03-Oct-2023 to 20 Oct-2023- by Wipro Limited.
 29. Co-chair of the Technical Session in the 6th World Congress On Disaster Management(WCDM), held in Graphics Era (Deemed to be University), hosted by Government of Uttarakhand, USDMA, UCOST and DMICS, from 28th Nov 2023 to 1st Dec 2023.
 30. Session chair in 4th International Conference on Innovative Sustainable Computational Technologies (CISCT2024), (Technically Co-sponsored by IEEE UP Section, Conference Record No. 62494) held on 27th and 28th **December 2024**, organized by the Department of Computer Science & Engineering, Graphic Era (Deemed to be University), Dehradun sponsored by CSIR- India, SERB- India and UCOST-Uttarakhand.
 31. Attended AI Pragyan: Faculty Development Program on Generative AI held from February 16, 2026 – March 06, 2026, organized & delivered by SmartBridge in collaboration with IBM SkillsBuild to enhance technical competencies & pedagogical skills of Educators.