

Department of Computer Science Kanya Gurukula Dehradun 55/1, Arya Nagar Block-II Dehradun (Uttarakhand) Email: savita.singh@gkv.ac.in

### DR. SAVITA

#### Personal Details

FULL NAME: DR. SAVITA
DEPARTMENT: Computer Science
FATHER'S NAME: SH. D.P. SINGH

MARITAL STATUS: Married

### Academic Qualifications

- Ph.D. (Computer Science and Technology) from **Jawaharlal Nehru University, New Delhi** in August 2020. Thesis Title: A Social Feature Based Routing in Delay Tolerant Networks. Supervisor Name: Prof. D. K. Lobiyal
- M.Tech. (Computer Science and Technology) from **Jawaharlal Nehru University, New Delhi** in 2014. Dissertation Title: Intercontact Routing algorithm using Location Information in Delay Tolerant Networks.
- B. Tech. (Information Technology) from **I.E.T. Lucknow**, in 2004.
- UGC NET Qualified in June 2015
- GATE 2006- 350 SCORE, 686 RANK.

# Academic Experience

- Presently working as **Assistant Professo**r in Department of Computer Science at Kanya Gurukula Dehradun, Dehradun [Gurukula Kangri (Deemed to be University), Haridwar] since 02 Nov 2018.
- Worked as **Assistant Professor** in Department of Information Technology at Meerut Institute of Engg. & Technology (MIET), Meerut from 24 July 2017 to 01 Nov 2018.
- Worked as **Sr. Lecturer** in Department of Information Technology at Meerut Institute of Engg. & Technology (MIET), Meerut from 16 Sep 2008 to 29 July 2012.
- Worked as **Lecturer** in Department of Information Technology at Meerut Institute of Engg. & Technology (MIET), Meerut from 18 Jan. 2007 to 15 Sep 2008.

### Research Publications

## Project Grant

• Renu Shukla (PI) & Savita (CO-PI) (22 September 2023). Reviving ancient wisdom: a study of ancient water science techniques and applicability in contemporary Dehradun. Uttarakhand state council for science & technology (UCOST), Dehradun.

#### Journal Publications

- Renu Shukla, & Savita (Aug 2024). A Survey and Analysis of Natural Water Sources on the Proposed Song Dam Route in Dehradun. Solov'evskie Issledovania. Solovyov Studies ISPU VOLUME 72, ISSUE 8, 2024. ISSN: 2076-9210 (Scopus)
- Ankita Verma & Savita (Aug 2024). A Comprehensive Survey of the Design of Delay Tolerant Networks: Architecture, Bundle Protocol Specifications and Naming Schemes. Solov'evskie Issledovania. Solovyov Studies ISPU VOLUME 72, ISSUE 8, 2024. ISSN: 2076-9210 (Scopus)
- Savita, Kumar, N. & Siwch, A. Fuzzy clustering based on distance metric under intuitionistic fuzzy environment. Granul. Comput. 9, 20 (2024). https://doi.org/10.1007/s41066-023-00446-2 Electronic ISSN: 2364-4974 Print ISSN: 2364-4966 (Web of Science Scopus)
- Savita, & Verma, Ankita (September 2023). Buffer Management Techniques in Delay Tolerant Networks: A Comprehensive Survey. Recent Advances in Computer Science and Communications. Volume 16, Issue 8, 2023. Volume 16, Issue 8, 2023. ISSN (Print): 2666-2558 ISSN (Online): 2666-2566. (Scopus)
- Savita, A review of pregnant women's present circumstances to promote welfare, Shodh Disha, April-June 2023, ISSN: 0975-735X. VOL NO: 62. Page no: 90-94.
- Savita, & Verma, Ankita. (September 2022). Eigen Vector Centrality (EVC) Routing for Delay Tolerant Networks: A Time Associated Matrix-Based Approach. Wireless Personal Communications. 128. 1-17. 10.1007/s11277-022-09996-1. (SCI Indexed, Publisher: Springer) Impact Factor: 2.017
- डॉ. तरन्नुम इरशाद, **डॉ. सविता**.(July-September 2022). आर्टिफिशियल इंटेलिजेंस: सीमायें, भविष्य और चुनौतियां. शोध दिशा. ISSN: 0975-735X. VOL NO: 59. Page no: 229-234. http://www.hindisahityaniketan.com/hindisodh/index.php/2022-12-04-09-46-25
- Ankita Verma, **Savita**, Sanjiv Kumar "Routing Protocols in Delay Tolerant Networks: Comparative and Empirical Analysis" Journal of wireless personal communications on Jan 2021. doi: 10.1007/s11277-020-08032-4 (**SCI Indexed**) **Impact Factor: 1.671.**
- **Savita**, D.K. Lobiyal, "Inter-contact delay and location information based routing (ICDLIR) with adaptive threshold buffer management for delay tolerant networks" Journal of International Journal of Information and Communication Technology (IJICT) in Aug 2020. doi: 10.1504/IJICT.2020.110786 (**Scopus**)
- **Savita,** D.K. Lobiyal, "Location based contact time energy efficient routing (LCTEE) approach for delay tolerant networks" Journal of wireless personal communications on May, 2019. doi: 10.1007/s11277-019-06543-3(**SCI Indexed**) **Impact Factor: 1.061.**
- **Savita**, D.K. Lobiyal, "Multicopy Energy aware distance and inter-contact delay routing (EDICDR) approach for delay tolerant networks" International Journal of computer network and information security (IJCNIS), Vol.11, No.5, pp.36-42, 2019.DOI: 10.5815/ijcnis.2019.05.05. (**Scopus**).

### Patent Publications

- **Dr. Savita**, Dr. Ankita Verma and Dr. Jyoti Singh Kirar "Machine Learning assisted Big Data Analytic System." Office of the comptroller general of patents, Designs & Trends Marks, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, **Government of India**, application no: **202111037719**
- Dr. Pratishtha Verma, Dr. Ankita Verma, Dr. Jyoti Singh Kirar and **Dr. Savita** "Machine learning based confidence tracking device of the employee." Office of the comptroller general of patents, Designs & Trends Marks, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, **Government of India**, application no: **378936-001**

# Conference Publications/Book Chapters

- Savita, Deepti Singh, Ankita Verma, and Niharika Singh Advances in Autonomous Navigation through Intelligent Technologies, Concepts and Algorithms of Mobile Devices, **Series:** AAP Advances in Artificial Intelligence and Robotics **ISBN:** 9781774917008.
- Ankita Verma, Savita, Sakshi Gupta (3 Aug 2023) A Fuzzified Approach for Overlapping Community Detection in Social Networks Based on Nodes Similarity. Fifteenth International Conference on Contemporary Computing August 2023, Pages 706–710 https://doi.org/10.1145/3607947.3608086.
- S. Savita and A. Verma, "Social feature-based routing methods in delay tolerant networks: Assessment of current research," 2023 Second International Conference on Informatics (ICI), Noida, India, 2023, pp. 1-6, doi: 10.1109/ICI60088.2023.10421023. Date Added to IEEE Xplore: 08 February 2024.
- Kiran Kumari, Suhani chauhan, Subhangi Singh, **Savita**. (7-8 April 2023). Recent Research on Scholarship Programs: Obstacles and Opportunities. International Conference on Advanced Emerging Trends in Engineering & Pharmaceutical Science(AETEPS-2023), BIT Meerut ISBN: 978-935782-960-1, https://aeteps2023.files.wordpress.com/2023/08/recent-research-on-scholarship-programs.pdf
- Bharti Chauhan, Prerna, Manu Rajput, Savita. (7-8 April 2023). Current Study on Pregnant Women's Health: Challenges and Prospects. International Conference on Advanced Emerging Trends in Engineering & Pharmaceutical Science(AETEPS-2023), BIT Meerut, ISBN: 978-935782-960-1, <a href="https://aeteps2023.files.wordpress.com/2023/08/current-study-on-pregnant-womens-health.pdf">https://aeteps2023.files.wordpress.com/2023/08/current-study-on-pregnant-womens-health.pdf</a>
- Dr. Savita, A study on current scenario of e-waste and e-waste management in India, E-Waste Management: Challenges and Opportunities, National, March 2022, Gurukula Kangri (Deemed to be University), Haridwar, ISBN: 978-93-91778-04-0
- Dr. Savita, e-Squander Management in India: Issues and Challenges, E-Waste Management: Challenges and Opportunities, National, March 2022, Gurukula Kangri (Deemed to be University), Haridwar, ISBN: 978-93-91778-04-0
- T. Ramachandran, S. Kumar, **Savita**, "Automatic Control of Electrical Loads Based on the Atmospheric Conditions", International conference on Advances in Communication and Computational Technology (14 August 2020).
- **Savita**, "Energy Efficient Delay Tolerant Routing Protocols: A Comparative Study" IEEE International Conference on Computing Communication and Automation (ICCCA2017) on 05<sup>th</sup>-06<sup>th</sup> May, 2017 at Galgotia University, Greater Noida. [IEEE Conference]

- Savita, D.K. Lobiyal, "Location Information and Inter-Contact based Routing approach for Delay Tolerant Networks" International Conference on Recent Trends in Computing (ICRTC-2015) on March, 12-13, 2015 at SRM University, NCR Campus Ghaziabad. [Elsevier Procedia]
- Dimpi Srivastava, Sweta Jain, **Savita**, "Clustering Techniques in Data Mining: Issues and Prospects" National conference on "Emerging Technologies in Computer Science (ETCS-2007)" Sep. 22-23, 2007 at MIET, Meerut.
- Savita, Sweta Jain, Anita Sachan, "Encryption Technologies against E-Fraud for Consumer Welfare" National conference on "Consumer Protection & Consumer Welfare" (7-8 March 2008) at MIET, Meerut.
- Amit Bhardwaj, **Savita**, Ajay Singh, "E-commerce and Consumer Concerns" National conference on "Consumer Protection & Consumer Welfare" (7-8 March 2008) at MIET, Meerut.

## Invited talk as Resource Person/Event Organized

- Delivered a Expert talk on "opportunistic network" in 3<sup>rd</sup> International Conference on Automation and Computation (**AUTOCOM**) 2025 organized by the Department of Computer Science, Graphic Era Hill University, Dehradun on 4-6 March 2025.
- Acted as a Session Chair in 3<sup>rd</sup> International Conference on Automation and Computation (**AUTOCOM**) 2025 organized by the Department of Computer Science, Graphic Era Hill University, Dehradun on 4-6 March 2025
- Acted as a Session Chair in International Conference on Cybercom and Computational (CYBERCOM) 2024 organized by the Department of Computer Science, Graphic Era Hill University, Dehradun on 15-16 November 2024.
- Delivered a Expert talk on "Delay Tolerant Network" in International Conference on Cybercom and Computational (**CYBERCOM**) 2024 organized by the Department of Computer Science, Graphic Era Hill University, Dehradun on 15-16 November 2024.
- Delivered a Lecture titled "Data Analytics using Excel" as a Resource Person in Govt. Polytechnic Shahbad, Rampur on 6 June 2024.
- Acted as a Convener of Expert Lecture on "Machine Learning & Data Science using Python" by Department of Computer Science, KGC Dehradun on 29 Dec. 2023 by Jyoti Singh Kirar, JNU New Delhi.
- Acted as a Co-Convener of one weak workshop as a Co-Convener on "Python HANDS-ON Workshop" by Department of Computer Science, KGC Dehradun on 21 to 26 August, 2023.
- Acted as a **Co-Convener** of webinar on "Sangeet Mein Rozgaar ki Sambhavnayein" by Department of Music, KGC Dehradun on 7 April 2023.
- Acted as a **Co-Convener** in one week workshop "Python Workshop: Introduction and Beyond" organized by the Department of Computer Science, KGC Dehradun in collaboration with Dream Tech Dehradun during 31Oct. to 6 Nov. 2022.
- Acted as a Session Chair in International Conference on "Advanced Emerging Trends in Engineering & Pharmaceutical Science" (AETEPS-2023), BIT Meerut, 7-8 April 2023.
- Convener of webinar on "Nature Inspired Computing: Algorithms and Applications" (16 Feb 2022)
- Organizing team member of webinar on "Celebrating Womanhood: Voices of Women" (8th March 2022)
- Delivered a Lecture titled "Routing in Delay Tolerant Networks" as a **Resource Person** in DST CIMS BHU ACM Student Chapter, BHU Varanasi on 17 Aug. 2021.
- Delivered Lectures in "Excel @ Excel" workshop as a Resource Person in Kanya Gurukul Campus Dehradun on 15-21 Sep. 2021.

- Acted as a **Co-Convener** in 7-days workshop "Excel @ Excel" by Kanya Gurukul Campus Dehradun on 15-21 Sep. 2021.
- Acted as a **Convener** in the National Webinar entitled "Nature Inspired Computing: Algorithms and Applications" organized by Department of Computer Science, Gurukul Kangri (Deemed to be University), Haridwar on 16 February 2022.
- Organizing Committee member in the National Webinar on the occasion of International Women's Day, 8th March 2022 by Department of Ancient Indian History Culture & Archaeology, KGC, Dehradun.
- Organizing Committee member in the National Conference entitled "E-waste Management: Challenges & Opportunities" organized by Department of Computer Science, Gurukul Kangri (Deemed to be University), Haridwar on 24-25 march 2022.
- Organizing Committee member in two days' workshop entitled Wordpress and search engine optimization (SEO) at department of computer science, GKV, Haridwar on 15-16 Feb. 2019.

# Refresher Course/FDP/Webinar/Workshop/Short Term Course Attended

- Attended UGC sponsored Two Weeks Interdisciplinary Refresher Course on "Use of Artificial Intelligence in Higher Education" from 09 Dec. 2024 to 21 Dec. 2024 and obtained A+ Grade under Malviya Mission Teacher Training Center, Central University of Haryana Mahendergarh, Haryana.
- Attended Online Workshop on "Quantum Information & Advance Computing-Modern edge with Industrial Alignments" organized by Amity School of Engineering and Technology from Aug 01-03 2024
- Attended Online FDP on "Autonomous AI for Sustainable Development" Department of Computer Science, at Jaypee Institute of Information Technology, Noida, Uttar Pradesh from June 3-8 2024
- Attended Online Short Term Course On Machine Learning and its Applications in IoT, Computer Vision and Cloud Computing (MICC-2023) at Department of Computer Science and Engineering, National Institute of Technology Jamshedpur from July 10-14 2023.
- Attended One Week Online Faculty Development Programme, ML/DL for Data Science and Analytics using Python at Dr B R Ambedkar National Institute of Technology Jalandhar15-19 February 2023.
- Attended Online Elementary ATAL Faculty development Program on "Computational Foundation for Data Science" from 26-7-2021to 30-07-2021 at Banaras Hindu University Varanasi. (No. ATAL/2021/1625406161)
- Attended webinar on Latex for Report Writing on 26 June 2021 by DST CIMS BHU ACM Student Chapter, BHU Varanasi.
- Attended Two Weeks Interdisciplinary Refresher Course/ Faculty development Program for Advance Research Methodology Tools and Techniques from 30 Jan. 2021 to 14 Feb. 2021 and obtained Grade A+ under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Training.
- Attended (online) ATAL Faculty development Program on Cloud Technology from 09-13 Nov. 2020 at Inflibment Centre. (No. ATAL/2020/1604472518)
- Attended webinar on Software Defined Networking (SDN) on 31 Oct. 2020 at Bharti Vidhyapeeth's Institute of Computer Applications and management, New Delhi.
- Attended online training on Online Education & Teaching Methodologies during 07-10 Aug 2020 at Gurukula Kangri Vishwavidyalaya, Haridwar.
- Attended (online) Faculty development Program on Machine learning & Applications from 18-23
   May 2020 at Sagar Institute of Research & Technology, Bhopal.
- Python Basic, Coursera online Course University of Michigan 2020.

- Attended UGC Sponsored Orientation Programme at JNU New Delhi on 06-25 Jan. 2020.
- Gold Medalist of **NPTEL Swayam Course** (Score: 91% marks) in Database Management System in 2019.
- Attended International Conference on International Conference on Computing Communication and Automation (ICCCA2017) on 05-06 May, 2017 at Galgotia's University, Uttar Pradesh.
- Attended International Conference on Recent Trends in Computing (ICRTC-2015) on March, 12-13, 2015 at SRM University, NCR Campus.
- AICTE-Sponsored *Online* Short-Term Course on "NBA Accredidation" online by NITTTR, Chandigarh during March 10-14, 2016.
- Attended engineering faculty workshop of Wipro Mission 10X at MIT Meerut on 22-24 Dec. 2014.
- AICTE-Sponsored *Online* Short-Term Course on "Computer Network using CCNA through ICT" online by NITTTR, Chandigarh during March 10-14, 2014.
- Attended the National Seminar on TQM in Pedagogy (TQMP), 27<sup>th</sup> May 2008.
- Attended National workshop on Digital image processing conducting on 15-16 Nov. 2008 BIT Muzaffarnagar.
- Attended the National Conference on "Emerging Technologies in Computer Science (ETCS-2007)" Sep. 22-23, 2007 at MIET, Meerut.

## Administrative Responsibilities/Member of academic bodies

- IEEE, ACM MEMBER
- IQAC, Co-ordinator at Kanya Gurukul Campus Dehradun.
- Member of Career Planning Academy at Gurukul Kangri (Deemed to be University), Haridwar.
- Member of NIRF committee at Gurukul Kangri (Deemed to be University), Haridwar.
- NIRF Committee Member
- MCA KGC Admission Committee Member
- Career Planning Academy Member
- NAAC Criteria -3 Committee Member
- BOS member
- Research Monitoring & Coordinating Internal Committee Member
- SC/ST cell (Scholarship) Internal Committee Member
- Sports Internal Committee Member
- DRC Committee member

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