

Miss Kumkum Dubey



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Education

M.Tech. (Information Technology):

- Department of Computer Engineering, **Madan Mohan Malaviya University of Technology, Gorakhpur**
- **Topic of the Dissertation:** Performance Improvement of NAND flash Memory
- **Dissertation Supervisor :** *Prof. P.K. Singh (MMMUT)*

B.Tech (Computer Science & Engineering):

- Department of Computer Science & Engineering, **Shri Ram Murti Smark College of Engineering & Technology (SRMS), Bareilly,**

Research Area

- Research Field is Computer Architecture and interest in Flash memory (M.tech Thesis)
- Research Field is Wireless Sensor Nodes (WSNs)
- Image processing and computer vision using Machine Learning and pattern recognition.

Publications in the Conferences and Journal

1. "An Efficacious Page Replacement Technique for NAND Flash Memory, "Proceeding of IEEE 4TH International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), Vol.3, pp.556-559, 2017.
2. "A Survey on Flash Translation Layer for NAND Flash Memory," **Indian Journal of Science and Technology**, Vol 11(23), DOI: 10.17485/ijst/2018/v11i23/125641, June 2018
3. " Multi-Factor Based Energy Efficient Algorithm for Clustering and Routing in WSN", Proceedings of SPRINGER 3th International Conference SoCTA 2018 (In press) (**SCOPUS**)
4. "Heterogeneous Clustering for Energy Optimization in Wireless Sensor Networks", 9th International Conference-Confluence-2019 (In press) (**SCOPUS**)
5. "Multi-Objective Heterogeneous Clustering Approach for Efficient-Energy Optimization in WSN", 9th International Conference-CONFLUENCE' 2019 (**In press**) (**SCOPUS**)
6. "Multi Parameters Based Heterogeneous Clustering Algorithm for Energy Optimization in WSN", 9th International Conference-CONFLUENCE' 2019 (**In press**) (**SCOPUS**)
7. "Implementation and Analysis of 7T SRAM at Different Design Technologies", 2nd IEEE International Conference on Intelligent Sustainable Systems [ICISS 2019] (**SCOPUS INDEXED**). (In press)
8. "Mean Threshold Shortest Job Round Robin CPU Scheduling Algorithm", 2nd IEEE International Conference on Intelligent Sustainable Systems [ICISS 2019] (**SCOPUS INDEXED**) (In press)
9. "An enhanced approach for energy optimization using protocol based on multi factors", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (**SCOPUS INDEXED**) (In press)
10. "A Survey on Fundamental of Wireless Sensor Network with Various Issues in Optimization", 3rd IEEE Technically Sponsored International Conference on

Computing Methodologies and Communication (ICCMC 2019) (**SCOPUS INDEXED**). (In press)

11. "Load Balanced Clustering protocol for lifetime enhancement of WSN", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (**SCOPUS INDEXED**). (In press)
12. "Power Optimization Algorithm for Heterogeneous WSN using Multiple Attributes", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (**SCOPUS INDEXED**). (In press)
13. "Flash Block Aware Page Replacement Algorithm for NAND Flash Memory" in International **Journal of Research and Analytical Reviews** | IJRAR | E-ISSN 2348-1269, P- ISSN 2349-5138, ISSN and **UGC Approved**
14. "Fuzzy based Technique for Nodes Coverage with Load Balancing Data collection using Multiple Conflicting Factors", Proceedings of the Fourth International Conference on Communication and Electronics Systems (ICCES 2019) IEEE Conference Record # 45898; IEEE Xplore ISBN: 978-1-7281-1261-9, pp: 578-583 (**SCOPUS INDEXED**). (In press)
15. "Power Balanced Efficient Clustering Algorithm for WSN", Proceedings of the Fourth International Conference on Communication and Electronics Systems (ICCES 2019) IEEE Conference Record # 45898; IEEE Xplore ISBN: 978-1-7281-1261-9, pp: 584-588 (**SCOPUS INDEXED**). (In press)
16. "Relative Distance Based Fuzzy Clustering Approach for Wireless Sensor Networks". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE
17. "Energy Distribution based Cluster Head Selection to Enhance the Lifetime of WSN". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE
18. "Optimization of Data Collection process in Heterogeneous WSN using Fuzzy and Multi-Attribute based Load Balancing Approach". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE (In press)
19. Lifetime Maximization of Heterogeneous WSN using Fuzzy-based Clustering", Recent Advances in Computer Science and Communications (2020) 13: 1.
<https://doi.org/10.2174/2666255813999200824123409> (**SCOPUS Indexed Journal**)
20. ESS-IBAA: Efficient, Short, and Secure ID-based Authentication Algorithm for Wireless Sensor Network, International Journal of Communication Systems - Decision on Manuscript ID IJCS-20-0807.R2 (**SCI Indexed Journal**)

Certification & Short Term Courses Attended/ Organized/Lectures

1. NIIT Certified Router Configuration Awarded second place for Line follower Robot at the National Level Technical Fest organized by SRMS, Bareilly, March 25, 2012.
2. Certificate from IIT Bombay on qualifying Linux workshop at SRMSWCET
3. Participated in one-week short term course (STC) on “Advances in Computing Technology (ACT-2016)” organized by Department of Computer Science & Engineering, MMMUT- Gorakhpur, Gorakhpur, July 3-9, 2016.
4. Attended One-week National Workshop on MATLAB & Its Application, Jan 28 – Feb 01, 2019 in Engineering organized by Department of Electrical Engineering at Rajkiya Engineering College Ambedkar Nagar.
5. **Work as Organizing Committee Member** in One-week National Workshop on IMAGE PROCESSING COMPUTER VISION & APPLICATIONS (IPCVA-2019), Feb 05 – Feb 09, 2019 in Engineering organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar Sponsored by TEQIP-III
6. Attended One Week Faculty Development on Essentials of Teaching-Learning Process & Research Methodology, February 04-08, 2019 in Department of Electrical Engineering at Rajkiya Engineering College Ambedkar Nagar Sponsored by TEQIP-III
7. **Work as Coordinator** in one day National Workshop on Machine Learning with Python” on 29th April , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar
8. **Worked as Coordinator** in Short Term Course on “Next Generation Wireless Networks” through ICT during 29th April-3rd May , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar
9. **Work as Coordinator** in two week National Workshop on Ethical Hacking & Cyber Security ” Sponsored by TEQIP-III during 6TH June-15th June , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar
10. **Worked as Convener** in four week internship on “Python, Android and WSN Optimization using MATLAB” (PAWOM-2019)during 17TH June-13th July , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar

11. **Delivered four Expert Lectures on 6th July-8th July in four week internship on “Python, Android and WSN Optimization using MATLAB” (PAWOM-2019)**during 17th June-13th July , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar
12. Worked as Organizing committee in one week lecture series on “Artificial Intelligence, IOT, Machine Learning and Deep Learning ” Sponsored by TEQIP-III during 17th September- 21st September , 2019 organized by Department of Information Technology at Rajkiya Engineering College Ambedkar Nagar
13. **Work as Faulty Coordinator in Technical Poster activities in Dr Abdul Kalam Technical-Literary and Management Fest on 8 November-9 November** at Rajkiya Engineering College Ambedkar Nagar

Project

- In M.Tech, I have done a mini project on “Variation in Cell Parameters for Improved Performance of SRAM Cell”.
- In B. Tech, I had done a major project on “Online Shopping” in visual C# as front end and My SQL as back end.

Additional Roles / Responsibilities at Institute / Department Level

- Assistant Professor on contract at REC Ambedkar Nagar Akbarpur, U.P. on contractual basis during July 18th 2018 to June 30th 2019.
- Assistant Professor on contract at REC Ambedkar Nagar Akbarpur, U.P. on contractual basis during August 13th 2019 to June 30 2020.
- Assistant Professor on contract at REC Ambedkar Nagar Akbarpur, U.P. on contractual basis during September 1st 2020 to June 30 2021.
- Co-Convener of Council of Photography and Fine Arts: 18 July 2018 to 30 June 2019(REC Ambedkar Nagar Akbarpur)
- Member of Equality Gender and Sexual Harassment: 18 July 2018 to 30 June 2019(REC Ambedkar Nagar Akbarpur)
- B. Tech. Projects Supervised: 02
- **B. Tech First year class coordinator** : 18 July 2018 to 30 June 2019
- warden Girls Hostel : from 16 August 2019 to 30 July 2021(REC Ambedkar Nagar Akbarpur)

Others

- **Subjects:** Information theory and Coding , Operating System, Computer Network, Digital Logic Design, Software Project Management, Compiler Design, Database Management System, Mobile Computing, Cyber Security, Programing for Problem Solving, Computer System and Security.
- **Tools:** Visual Studio, MATLAB
- **Simulator:** SSD sim
- **Operating Systems:** Windows 7 & Windows 8, Linux, Ubuntu