

## CURRICULUM VITAE

### Dr. Deepti Gupta

#### Assistant Professor

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**Objective:** To work selflessly, honestly, dedicatedly and sincerely for the growth and promotion of education by my hard work and the ability to learn new things.

#### Educational Qualifications:

Qualification	Name of the Institution
Ph.D Computer Science & Engineering.	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar
M.Tech Computer Science & Engineering.	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar
B.E. Computer Science & Engineering	University of Jammu

#### Teaching Experience:

Organisation/Institute	Year
UIET, Panjab University, Chandigarh	2015 till date
National Institute of Technology, Delhi	2014

#### Research Interest:

Wireless Sensor Networks; Data Mining.

#### Research Guidance:

PhD/ME	Ongoing	Completed
PhD	3	-
ME	4	8

## Publications:

### (a) Refereed International Journals

1. Rahul Singh and **Deepti Gupta**, “Enhancing Interpretable Anomaly Detection: Depth-based Extended Isolation Forest Feature Importance (DEIFFI)”, *International Journal of Computer Sciences and Engineering*, Vol.12, Issue.5, pp.59-67, May 2024. (ISSN: 2347-2693).
2. Saasha Joshi and **Deepti Gupta**, “Grover’s Algorithm in a 4-Qubit Search Space”, *Journal of Quantum Computing*, Vol 3, Issue 4, pp. 137–150, January 2022. (ISSN: 2579-0145). Publisher Tech Science Press
3. Navdeep Kumar, Nirmal Kaur and **Deepti Gupta**, “Red Green Blue Depth Image Classification Using Pre-Trained Deep Convolutional Neural Network”, *Pattern Recognit. Image Anal.* 30, 382–390 (2020). <https://doi.org/10.1134/S1054661820030153>.
4. Abheyjeet Singh Chahal, **Deepti Gupta** and Ravreet Kaur, “Congestion Aware Routing Protocol for Low Power and Lossy Networks”, *International Journal of Grid and Distributed Computing (IJGDC)*, Vol 11, No 10, pp. 51-64, November 2018. (ISSN: 2005-4262). Published by Science & Engineering Research Support Society (SERSC), Korea (Scopus).
5. Krishan Kumar, **Deepti Gupta** and Nirmal Kaur, “Energy Efficient Communication Protocol for Chain-based Clustered WSNs”, *International Journal of Grid and Distributed Computing (IJGDC)*, Vol 9, No 9, pp. 81-92, September 2018. (ISSN: 2005-4262). Published by Science & Engineering Research Support Society (SERSC), Korea (Scopus).
6. **Deepti Gupta** and Ajay K Sharma, “Fuzzy Cost Metric based Adaptive (FCMA) Routing Protocols for WSNs”, *International Journal of Sensor and its Applications for Control Systems (IJSACS)*, Vol 1, No 1, pp.13-22, November 2013. (ISSN: 2287-8467). Published by Science & Engineering Research Support Society (SERSC), Korea.
7. **Deepti Gupta** and Ajay K Sharma, “Effect of the Aggregate Queue and Transmit Duplicate Layers on the WSN Routing Protocols for MICA and MICAz”, *International Journal of Grid and Distributed Computing (IJGDC)*, Vol 6, No 3, pp. 1-10, June 2013. (ISSN: 2005-4262). Published by Science & Engineering Research Support Society (SERSC), Korea (Scopus).
8. **Deepti Gupta** and Ajay K Sharma, “On Performance Evaluation of WSN Routing Protocols for MICA and MICAz using Different Radio Models”, *International Journal of Energy, Information and Communications (IJEIC)*, Vol 2, Issue 4, pp. 181-194, November 2011. (ISSN: 2093-9655). Published by Science & Engineering Research Support Society (SERSC), Korea.
9. Suraj Srivastava, Harsh K Verma and **Deepti Gupta**, “On Performance Evaluation of Mining Algorithm for Multiple-Level Association Rules based on Scale-up Characteristics”, *Journal of Advances in Information Technology (JAIT)*, Vol 2, No 4, pp. 234-238, November 2011. (ISSN: 1798-2340). Published By Academy Publisher.
10. **Deepti Gupta** and Ajay K Sharma, “Investigations on Energy Efficiency for WSN Routing Protocols for Realistic Radio Models”, *International Journal of Future Generation Communication and Networking (IJFGCN)*, Vol 4, No 3, pp. 61-72, September 2011. (ISSN: 2233-7857). Published by Science & Engineering Research Support Society (SERSC), Korea (Scopus).
11. **Deepti Gupta** and Ajay K Sharma, “Performance Investigations of Routing Protocols for WSNs based on Congestion-Aware Routing with Different Radio Models”, *International Journal of Applied Engineering Research (IAER)*, Vol 6,

- No 12, pp. 1461-1480, September 2011. (ISSN: 0973-4562). Published by Research India Publications (Scopus).
12. **Deepti Gupta** and Ajay K Sharma, “Comparative Investigations on Performance of Routing Protocols in Presence of Realistic Radio Models for WSNs”, *International Journal of Advanced Science and Technology (IJAST)*, Vol 29, No 10, pp. 101-112, April 2011. (ISSN: 2005-4238). Published by Science & Engineering Research Support Society (SERSC), Korea.
  13. **Deepti Gupta** and Ajay K Sharma, “On Routing Protocols for WSNs with Additional Layers: Future Technology for IT”, *Journal of Advances in Information Technology (JAIT)*, Vol 1, No 4, pp. 204-218, Nov 2010, doi: 10.4304/jait.1.4.204-218. (ISSN: 1798-2340). Published By Academy Publisher.
  14. Suraj Srivastava, **Deepti Gupta** and Harsh K Verma, “Comparative Investigations and Performance Evaluation for Multiple-Level Association Rules Mining Algorithm”, *International Journal of Computer Applications (IJCA)*, Vol 4, No 10, Article 7, pp. 40–45, August 2010. doi: 10.5120/860-1208. (ISSN: 0975-8887). (ISBN: 978-93-80746-49-4). Published By Foundation of Computer Science.
  15. **Deepti Gupta** and Ajay K Sharma, “Performance Evaluation of Routing Protocols for WSNs Based on Energy-aware Routing with different Radio Models”, *International Journal of Computer Applications (IJCA)*, Vol 3, No 12, Article 2, pp. 6–14, July 2010. doi: 10.5120/791-1119. (ISSN: 0975-8887). (ISBN: 978-93-80746-39-5). Published By Foundation of Computer Science.

**(b) Refereed International Conferences**

1. Damanpreet Kaur, Anjali Saini and **Deepti Gupta**, “Credit Card Fraud Detection Using Machine Learning, Deep Learning and Ensemble of the Both” in Proceedings of *the Seventh IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC-2022)*, pp. 484-489, November 25-27, JUIT, Solan, 2022, Scopus, ISBN: 978-1-6654-5401-8, doi: 10.1109/PDGC56933.2022.10053175.
2. Amandeep Kaur and **Deepti Gupta**, “A Hybrid Classification Model for Prediction of Academic Performance of Students: An EDM Application”, in Proceedings of *the 2nd international conference on Emergent Converging Technologies and Biomedical Systems (ETBS 2022)*, September 23-24, 2022, JUIT Solan, Springer.
3. Harjinder Kaur, **Deepti Gupta**, Mamta Juneja, “Denoising of Computed Tomography Images for Improved Performance of Medical Devices in Biomedical Engineering”, in Proceedings of *the 5<sup>th</sup> International Conference on Advances in Computing and Data Sciences (ICACDS 2021)*, pp. 136-146, April 23–24, 2021, Nashik, India, Publisher Springer, Cham, ISBN: 978-3-030-81462-5.
4. Navdeep Kumar, Nirmal Kaur and **Deepti Gupta** (2020), “Major Convolutional Neural Networks in Image Classification: A Survey”, in Proceedings of *International Conference on IoT Inclusive Life (ICIIL 2019)*, NITTTR Chandigarh, India (pp. 243-258). Springer, Singapore, [https://doi.org/10.1007/978-981-15-3020-3\\_23](https://doi.org/10.1007/978-981-15-3020-3_23).
5. **Deepti Gupta** and Ajay K Sharma, “Performance Evaluation of Constrained Flooding Routing Protocol for WSNs Based on Path Loss Exponent”, in Proceedings of *the First IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC-2010)*, pp. 266–271, October 28-30, 2010, Jaypee University of Information Technology (JUIT), Wagnaghat, Solan, H.P., India. IEEE Xplore (ISBN: 978-1-4244-7672-5) (Scopus).

### (c) Book Chapters

1. Kaur, A., Gupta, D. (2023). A Hybrid Classification Model for Prediction of Academic Performance of Students: An EDM Application. In: Jain, S., Marriwala, N., Tripathi, C.C., Kumar, D. (eds) Emergent Converging Technologies and Biomedical Systems. ETBS 2022. Lecture Notes in Electrical Engineering, vol 1040. Springer, Singapore. [https://doi.org/10.1007/978-981-99-2271-0\\_6](https://doi.org/10.1007/978-981-99-2271-0_6)
2. Kumar, K., Kaur, N. and Gupta, D. (2020). Major Convolutional Neural Networks in Image Classification: A Survey. In: Dutta, M., Krishna, C., Kumar, R., Kalra, M. (eds) Proceedings of International Conference on IoT Inclusive Life (ICIIL 2019), NITTTR Chandigarh, India. Lecture Notes in Networks and Systems, Springer, Singapore, vol 116., pp. 243-258, April 2020.

### Achievements and Awards:

1. Contributed as Reviewer in the **5<sup>th</sup> IEEE India Council International Subsections Conference (INDISCON 2024)** organized by IEEE India Council and IEEE Chandigarh Subsection, Punjab Engineering College (PEC), Chandigarh, India, August 22-24, 2024.
2. Participated in the event **FutureEd with AI** organized by IIT Mandi (CCE), July 25, 2024.
3. Participated in the Online - **NEP2020 Orientation & Sensitization Programme** under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by UGC-Malaviya Mission Teacher Training Centre (MMTTC), Panjab University, Chandigarh. January 16-26, 2024.
4. Contributed as Reviewer in the **14<sup>th</sup> International Conference (Confluence 2024)** on the theme **Cloud Computing, Data Science and Engineering**, Amity University, Noida, India, January 18-19, 2024.
5. Coordinator- Online two weeks (30 hours) workshop cum value added course on **Employability and Soft Skill Enhancement** from August 08-19, 2022.
6. Participated in a one-week workshop on **Designing and Modelling of IoT, AI and ML Systems**, organized by AICTE, ATAL Academy, Arm Education and STMICROELECTRONICS, August 01-05, 2022.
7. Successfully completed AICTE NITTT MOOC **Module 8\_ Institutional Management and Administrative Procedures**, April-May 2022.
8. Successfully completed AICTE NITTT MOOC **Module 7\_ Creative Problem Solving, Innovation and Meaningful R&D**, April-May 2022.
9. Successfully completed AICTE NITTT MOOC **Module 6\_ Student Assessment and Evaluation**, April-May 2022
10. Successfully completed AICTE NITTT MOOC **Module 5\_ Technology Enabled Learning and Life Long Self Learning**, April-May 2022.
11. Contributed as Reviewer and Member of Stage Management Committee in the **International Conference of Multidisciplinary Aspects of Materials in Engineering (IC-MAME-2021)**, UIET, Panjab University, Chandigarh, India, October 08-09, 2021.
12. Chaired a session during the **International Conference on Women Researchers in Electronics and Computing (WREC'21)**, organized by Department of

- Electronics and Communication Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, India from April 22-24, 2021.
13. Contributed as Reviewer and Member of Scientific Committee in Elsevier Scopus Indexed **2<sup>nd</sup> International Conference on Aspects of Materials Science and Engineering (ICAMSE-2021)**, Panjab University, Chandigarh, India, March 05-06, 2021.
  14. Successfully completed AICTE NITTT MOOC **Module 4\_ Instructional Planning and Delivery**, March-April 2021.
  15. Successfully completed AICTE NITTT MOOC **Module 3\_ Communication Skills, Modes & Knowledge Dissemination**, March-April 2021.
  16. Successfully completed AICTE NITTT MOOC **Module 2\_ Professional Ethics & Sustainability**, March-April 2021.
  17. Participated in the **2nd International Conference on Networks and Cryptology (NETCRYPT 2020)**, organized by the School of Computer and System Sciences, JNU, New Delhi, December 4-6, 2020.
  18. Successfully completed AICTE NITTT MOOC **Module 1\_ Orientation Towards Technical Education and Curriculum Aspect**, Sep-Oct 2020.
  19. Contributed as Reviewer in Elsevier Scopus Indexed **1<sup>st</sup> International Conference on Aspects of Materials Science and Engineering (ICAMSE-2020)**, Panjab University, Chandigarh, India, May 29 – 30, 2020.
  20. Successfully completed NPTEL course **Designing Learner - Centric MOOCs (4 Weeks)** on the SWAYAM platform (swayam.gov.in), Jan-Feb 2020.
  21. Coordinator-Online Session on **Overview of Intellectual Property Rights and its Role in Protection of Software-related Inventions (2020)**.
  22. Coordinator-Technical Session on **Introduction to GitHub-Distributed Version Control** under Twinning Program in association with GCET, Jammu and CSDE, Panjab University, Chandigarh. (2020).
  23. Coordinator-**Student Engaging Classrooms-Online/Offline (2020)**.
  24. Coordinator-**Online Session on Virtual Labs (2020)**.
  25. Coordinator-**Training Workshop on Virtual Labs (2020)**.
  26. Nodal Coordinator-**Virtual Labs IIT Delhi (2019-2021)**.
  27. Attended **Workshop on Exam Reforms**, conducted by AICTE at NITTT Chandigarh (2019).
  28. Coordinator-**Design and Idea Competition, 2019**.
  29. Coordinator-**Workshop on Cognitive Skills, Design Skills and Critical Thinking Skills**, IIC UIET, 2019.
  30. SPOC-**Smart India Hackathon 2019**.
  31. Member, **Institution's Innovation Council (IIC) UIET (2018-2019)**.
  32. Organized a **one-week workshop on Machine Learning and Deep Learning: Applications in NLP, Computer Vision and IoT** at UIET, Panjab University, Chandigarh from July 10-14, 2018.
  33. Participated in the **Curriculum Development workshop** organized by Computer Science and Engineering department, UIET under Teqip-III on May 25 2018.
  34. Conducted Laboratory Sessions during **DST Inspire Internship program** from March 27-29, 2018 in Panjab University, Chandigarh.
  35. Attended **Professional Refresher Course** organized by UGC-Human Resource Development Centre, Panjab University, Chandigarh from January 5-25, 2018.
  36. Participated in the **Faculty Development Program on Effective Teaching** conducted by UIET, Panjab University, Chandigarh from January 09-14, 2017.
  37. Attended **one week workshop on Image Processing and Machine Learning for Pattern Recognition** organized by Department of Computer Science and Engineering, UIET, Panjab University, Chandigarh from July 11-16, 2016.

38. Attended 110<sup>th</sup> **Orientation Course** organized by UGC-Human Resource Development Centre, Panjab University, Chandigarh from April 28-May 25, 2016.
39. Chaired a session during **2<sup>nd</sup> IEEE International Conference on Recent Advances in Engineering and Computational Sciences (RAECS 2015)** held from December 21-22, 2015 at UIET, Panjab University, Chandigarh.
40. Participated in **Faculty Enablement Program** on Foundation Program 4.0, **Focus Area 2-Relational Database Management Systems** conducted by Infosys Limited, Chandigarh from August 19-21, 2015.
41. Member of Selection Committee of **Faculty Development Program on Mobile Computing and Communication (MCC2014)** held during June 30 – July 04, 2014 at National Institute of Technology, Delhi.
42. Convenor/co-convenor of **Technical Committee of Faculty Development Program on Mobile Computing and Communication (MCC2014)** held during June 30 – July 04, 2014 at National Institute of Technology, Delhi.
43. Participated in **Workshop on Wireless Networks and Network Simulator (WNNS 2012)** conducted by Department of Computer Science and Engineering, Jaypee University of Information Technology, Wagnaghat, Solan from July 09-10, 2012.
44. Participated and **presented a paper** entitled **Performance Evaluation of Constrained Flooding Routing Protocol for WSNs Based on Path Loss Exponent** in the *First IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC-2010)* held during October 28-30, 2010 at Jaypee University of Information Technology, Wagnaghat, Solan, H.P., India.
45. Participated in the **Winter School on Recent Advances in Mobile Computing and Communication** conducted by the Department of Computer Science and Engineering at Dr B R Ambedkar National Institute of Technology, Jalandhar from December 22, 2008 to January 2, 2009, *sponsored by AICTE/MHRD*.
46. Attended **Seminar on Technological Issues in Computing & Communication (TICC-2007)** held in the Department of Computer Science and Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar *sponsored by Technical Education Quality Improvement Programme (TEQIP), MHRD, New Delhi* on October 5, 2007.
47. Qualified **Graduate Aptitude Test in Engineering (GATE) 2007**.
48. Selected as **Project Engineer** in **Wipro Technologies Limited** through campus placement in August 2008.

#### **Membership of Societies:**

1. Life Member of **ADVANCED COMPUTING AND COMMUNICATIONS SOCIETY (ACCS Membership ID - L6233A1523472)**
2. Life Member of **Indian Society for Technical Education (ISTE)**. Membership Id is- **LM 110527**

Dr. Deepti Gupta  
October 2024