CURRICULUM VITAE

DR. LALIT MOHAN GOYAL
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Department of Computer Engineering, J. C. Bose University of Science and Technology, YMCA, Faridabad Haryana **(State Government University)**
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Public Profile
1. Google Scholar: https://scholar.google.com/citations?user=FkVAIKkAAAAJ&hl=en
2. Scopus: https://www.scopus.com/authid/detail.uri?authorId=36997092600
3. WOS: https://www.webofscience.com/wos/author/rid/AAH-4030-2020
WOS Publications: 27
4. Online Chess: https://lichess.org/@/lalitgoyal78

Education Qualifications/Achievement

- **Ph.D.** (Computer Engineering) from **Jamia Millia Islamia University, New Delhi in 2016**.
- M. Tech **(**IT) from IP University, Delhi in 2009 with distinction.
- B.Tech. (Computer Engineering) in 2002 with Honors from Kurukshetra University, Kurukshetra.
- GATE-2011, GATE-2019 Qualified.

Patent & Research Projects

- Title: Creating a repository of equipment's under ICAMR's intramural program, Funding Agency- ICMR, New Delhi, Grant 2.42 Lakhs, Date of sanction: 01/03/2018 Date of Completion: 21/08/2018, Status: **Completed**.
- Three Indian patent (Patent no. 361136, 384612 and 406305) and Four Australian patent Granted. One design patent has been filed.

Papers Published- International Journals

1. Khan M. A., Khan M. A., Ahmed F., Mittal M., **Goyal L. M.**, Hemanth D. J. & Satapathy, S. C., (2020), "Gastrointestinal diseases segmentation and classification based on duo-deep Architectures", Pattern Recognition Letters, vol. 131, pp 193-204. ISSN- 0167-8655 **(SCI IF- 4.757)**. https://doi.org/10.1016/j.patrec.2019.12.024
2. Mittal M., **Goyal L. M**., Hemanth D-J & Sethi J. K. (2019), "Clustering approaches for high-dimensional databases: A review", WIREs Data Mining Knowledge Discovery, John Wiley & Sons , vol. 9(3), pp. 1-14. ISSN- 1942-4795 **(SCIE IF-6.4)** https://doi.org/10.1002/widm.1300
3. **Goyal L.M.**, Mittal M., Kaushik R., Verma A., Kaur, I., Roy, S., & Kim, T.-H., (2020) "Improved ECG watermarking technique using curvelet transform" Sensors, 20 (10), 2941, pp. 1-15. ISSN-1424-8220. **(SCIE IF- 3.847)** https://doi.org/10.3390/s20102941
4. **Goyal, L.M.**, Arora, M., Pandey, T. & Mittal M., (2020), "Morphological classification of galaxies using Conv-nets", Earth Science Informatics, vol. 13 (4), pp. 1427-1436. ISSN-1865-0481. **(SCIE IF- 2.705)** https://doi.org/10.1007/s12145-020-00526-w
5. Khan, M. A., Mittal, M., **Goyal, L. M.** & Roy, S., (2021), "A deep survey on supervised learning based human detection and activity classification methods", Multimedia Tools and Applications, vol. 80(18), pp. 1-57. ISSN- 1573-7721. **(SCIE IF-2.577)**. https://doi.org/10.1007/s11042-021-10811-5

6. Chhetri B., Goyal L. M. and Mittal M., (2023), "How Machine Learning is used to Study Addiction in Digital Healthcare: A Systematic Review", International Journal of Information Management Data Insights, vol. 3(2023) 100175, pp. 1-17, ISSN- 2667-0968, (Scopus) https://doi.org/10.1016/j.jjimei.2023.100175
7. Kaur I., **Goyal L. M.**, Ghansiyal A. and Hemanth D. J., (2022), "Efficient Approach for Rhopalocera Classification using Growing Convolutional Neural Network", International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, vol. 30(3), pp. 499-512. ISSN 1793-6411 **(SCIE IF- 1.027)** https://doi.org/10.1142/S0218488522400189
8. Mago N., Kumar S. & **Goyal, L.M.**, (2021), **"**Real Time Fuzzy based Intelligent Parking Detection System Using Deep Learning Techniques", International Journal of Fuzzy System, Springer, vol. 23, ISSN-2199-3211 **(SCIE IF- 4.085)** https://doi.org/10.1007/s40815-021-01212-9
9. Mittal M., Kaushik R., Verma A., Kaur I., **Goyal, L. M.**, Roy S., & Kim T. H. (2020). Image watermarking in curvelet domain using edge surface blocks", Symmetry, 12(5), 822. ISSN-2073-8994. (**SCIE IF- 2.940**) https://doi.org/10.3390/sym12050822
10. Saeed F., Khan, M. A., Sharif, M., Mittal, M., **Goyal, L. M.,** Roy S., (2021), "Deep Neural Network Features Fusion and Selection based on PLS Regression with an Application for Crops Diseases Classification", Applied Soft Computing, vol. 103, May 2021, pp 1-15. ISSN- 1568-4946. **(SCIE IF-8.263)**. https://doi.org/10.1016/j.asoc.2021.107164
11. **Goyal, L. M.**, Mittal, M., Kumar, M., Kaur, B., Sharma, M., Verma, A., Kaur, I., (2021), "An Efficient Method of Multicolor Detection using Global Optimum Thresholding for Image Analysis", Multimedia Tools and Applications, vol. 80(12) May 2021, pp 1-23. ISSN- 1573-7721. **(SCIE IF- 2.577)**. https://doi.org/10.1007/s11042-020-10365-y
12. Mittal, M., Battineni, G., **Goyal, L. M.**, Chhetri, B., Oberoi, S. V., Chintalapudi, N., & Amenta, F. (2020). Cloud-based framework to mitigate the impact of COVID-19 on seafarers' mental health. International Maritime Health, 71(3), 213-214, ISSN- 1641-9251. (Scopus Indexed-0.245) https://doi.org/10.5603/IMH.2020.0038
13. Chhetri, B., **Goyal, L. M.**, Mittal M. & Battineni, G. (2021), "Estimating the prevalence of stress among Indian students during the COVID-19 pandemic: A cross-sectional study from India", Journal of Taibah University Medical Sciences, ISSN 1658-3612, (Scopus Indexed-0.392). https://doi.org/10.1016/j.jtumed.2020.12.012.
14. Durbhaka G. K., Selvaraj B., Mittal M., Saba T., Rehman A. and **Goyal L. M.** (2021). "Swarm-LSTM: Condition Monitoring of Gearbox Fault Diagnose Based on Hybrid LSTM Deep Neural Network Optimized by Swarm Intelligence Algorithms". Computers, Materials & Continua, vol. 66(2), pp. 2041-59, ISSN-1546-2218. (**SCI IF- 3.860**). https://doi.org/10.32604/cmc.2020.013131
15. Mittal, M., Satapathy, S. C., Pal V., Agarwal B., **Goyal L. M.**, Parwekar P., (2021), "Prediction of coefficient of consolidation in soil using machine learning techniques", Microprocessors and Microsystems, vol. 82, 103830, ISSN 0141-9331, (**SCI IF- 3.503**). https://doi.org/10.1016/j.micpro.2021.103830
16. Mittal, M., Kumar, M., Verma, A., Kaur, I., Kaur, B, Sharma, M., **Goyal, L. M.**, (2020), FEMT: A Computational Approach for Fog Elimination using Multiple Threshold, Multimedia Tools and Applications, vol. 80, pp 227-241, ISSN- 1573-7721. (**SCIE IF- 2.575**) https://doi.org/10.1007/s11042-020-09657-0.
17. Chawla, S., Mittal, M., Chawla M., **Goyal, L. M.** (2020). Corona Virus - SARS-CoV-2: An Insight to Another way of Natural Disaster. EAI Endorsed Transactions on Pervasive Health and Technology, 6(22). ISSN- 2411-7145. (Scopus Indexed- 0.227)

18. Chhetri, B., **Goyal, L. M.**, Mittal, M., Gurung S. (2020). Consumption of Licit and Illicit Substances leading to Mental Illness: A Prevalence Study. EAI Endorsed Transactions on Pervasive Health and Technology, 6(21). ISSN- 2411-7145 (Scopus Indexed- 0.227).
19. Agarwal, A., Mittal, M., Pathak, A., & **Goyal, L. M.** (2020). Fake News Detection Using a Blend of Neural Networks: An Application of Deep Learning. SN Computer Science, 1, 1-9. ISSN-2661-8907.
20. Mittal M., **Goyal L. M.**, Kaur S., Kaur I., Verma A., Hemanth D. J., (2019), "Deep learning based enhanced tumor segmentation approach for MR brain images", Applied Soft Computing, vol 78, pp. 346-354. ISSN- 1568-4946. (**SCIE IF 7.2).** https://doi.org/10.1016/j.asoc.2019.02.036.
21. Mittal M., **Goyal L. M.**, Sethi J. K. and Hemanth D. J., (2018), "Monitoring the Impact of Economic Crisis on Crime in India Using Machine Learning", Computational Economics, vol. 53(4), pp. 1467-1485. (**SCIE IF 1.741**). ISSN-1572-9974 https://link.springer.com/article/10.1007/s10614-018-9821-x
22. **Goyal L. M.**, Beg M. M. S. and Ahmad T., (2017), "An Efficient Framework for Mining Association Rules in the Distributed Databases", The Computer Journal, Oxford University Press, Vol. 61 (5), pp. 645-657. ISSN-1460-2067. (**SCIE IF 1.762**). https://doi.org/10.1093/comjnl/bxx067
23. Kaur S., Bansal R. K., Mittal M., **Goyal L. M.**, Kaur I., Verma A. & Son L. H.(2019), "Mixed pixel decomposition based on extended fuzzy clustering for single spectral value remote sensing images", Journal of the Indian Society of Remote Sensing, vol. 47(3), pp. 427-437. ISSN-0974-3006. (**SCIE IF- 1.894**). https://doi.org/10.1007/s12524-019-00946-2
24. Mittal M., Verma A., Kaur I., Kaur B., Sharma M., **Goyal L. M.**, Roy S. & Kim T-H, (2019), "An Efficient Edge Detection Approach to Provide Better Edge Connectivity for Image Analysis", IEEE Access, vol. 7(1), pp 33240-33255. ISSN- 2169-3536. (**SCIE IF - 3.367**). https://doi.org/10.1109/ACCESS.2019.2902579
25. Kaur B., Sharma M., Mittal M., Verma A., **Goyal L. M.**, Hemanth D. J., (2018), "An improved salient object detection algorithm combining background and foreground connectivity for brain image analysis", Computers and Electrical Engineering, vol. 71, pp. 692-703. ISSN-0045-7906. (**SCIE IF-4.152**) https://doi.org/10.1016/j.compeleceng.2018.08.018
26. Kumar R., Son L. H., Jha S., Mittal M. and **Goyal L. M.**, (2018), "Spatial data analysis using association rule mining in distributed environments: a privacy prospect", Spatial Information Research, vol. 26(6), pp. 629-638, (Springer). ISSN-2366-3294. (Scopus Indexed- 0.439) http://link.springer.com/article/10.1007/s41324-018-0207-x
27. **Goyal L. M.**, M. Mittal and Sethi, J. K., (2016), "Fuzzy Model Generation using Subtractive and Fuzzy C – Means Clustering", *CSI Transaction on ICT*, Springer, vol. 4(2-4), pp 129-133. ISSN-2277-9086. https://doi.org/10.1007/s40012-016-0090-3
28. M. Mittal, Kaur I., Pandey S. C, Verma A. and **Goyal L. M.**, (2019), "Opinion Mining for the Tweets in Healthcare Sector using Fuzzy Association Rules", EAI Endorsed Transactions on Pervasive Health and Technology, vol. 4(6), pp 1-11. ISSN- 2411-7145. (Scopus Indexed-0.227) http://dx.doi.org/10.4108/eai.13-7-2018.159861
29. **Goyal L. M.**, Beg M. M. S. and Ahmad T., (2015), "A novel pruning approach for association rule mining", BIJIT- BVICAM's International Journal of Information Technology, vol. 7 (1), pp. 827-834. ISSN- 2511-2112. http://bvicam.ac.in/bijit/downloads/pdf/issue13/08.pdf

Guide and Reviewer-

- Guiding four Ph.D. students as main supervisor.
- Reviewer of ACM Transactions on KDD and the Journal Disaster Medicine and Public Health Preparedness published by Cambridge University Press, UK
- Three Ph.D. thesis reviewed

Book/Book Chapter

1. Chintalapudi N., Battineni G., Goyal L. M. and Amenta F., (2022),"Brain Tumor Classifications by Gradient and XG Boosting Machine Learning Models", In Predictive Modeling in Biomedical Data Mining and Analysis, pp. 122-136, ISBN-978-0-323-99864-2.
2. Edited a book: Mehra P.S., Goyal L. M., Dagur A., Dwivedi A. K., (2022), "Healthcare Systems and Health Informatics: Using Internet of Things", CRC Press, ISBN: 978-0-367-70394-7
3. Edited a book: Mittal M. and Goyal L. M., (2022), "Predictive Analytics of Psychological Disorders in Healthcare" Lecture Notes on Data Engineering and Communications Technologies, vol 128. Springer, Singapore.
4. Usharani B. and Goya L. M., "Prediction of Mental Health in Cancer Patients using Ensemble Machine Learning, In Predictive Analytics of Psychological Disorders in Healthcare. Lecture Notes on Data Engineering and Communications Technologies, vol 128. Springer, Singapore. ISBN: 978-981-19-1724-0 https://doi.org/10.1007/978-981-19-1724-0_13
5. Authored a book: Mittal M., Battineni G., Usharani B. and Goyal L. M., "Text Analysis with Python: A Research-Oriented Guide", Bentham Science Publishers Singapore, 2022, ISBN 978-981-5049-60-2
6. Edited a book: Roy S., Balas V. E., Mittal M., Goyal L. M. and Agarwal B., "Predictive Modeling in Biomedical Data Mining and Analysis", Elsevier Science, Netherlands. 2022, ISBN 978-032-39-1445-1.
7. Obera U. M., Etukudoh N. S., Chhetri B. and **Goyal L. M.**, "Tertiary Students Stress Detection During Online Learning in Jos, Nigeria", In Predictive Analytics of Psychological Disorders in Healthcare. pp. 239-252, Springer, Singapore. https://doi.org/10.1007/978-981-19-1724-0_12
8. Edited a book: Tiwari R., Mittal M. and **Goyal L. M.**, "Energy Conservation solutions for Fog-Edge Computing Paradigms", under the book series Data Engineering and Communications Technologies by Springer, vol 74, 2021. ISBN 978-981-16-3448-2.
9. Khosla, P. K., Mittal, M., **Goyal, L. M.** & Chachram K. (Jan. 2021) "Mitigate the Impact of Covid-19: Telehealth", In *Predictive and Preventive Measures for Covid-19 Pandemic,* Algorithm for Intelligent Systems. Springer, Singapore, pp. 1-17. ISBN-978-981-33-4236-1 https://doi.org/10.1007/978-981-33-4236-1_1
10. **Goyal, L. M.**, Mittal, M. & Sharma, A., (Nov. 2019), "Automation Movie Recommender System Based on Internet of Things and Clustering", Security designs for the cloud, IoT and Social Networking, John Wiley & Sons, pp. 113-128, ISBN- 978-111-95-9317-1. https://doi.org/10.1002/9781119593171.ch7
11. Edited a book: Mittal M., Tanwar S., Agarwal B. and **Goyal L. M.**, "Energy Conservation for IoT Devices", under the book series Studies in Systems, Decision and Control by Springer, vol 206, 2019. ISBN 978-981-13-7398-5. https://link.springer.com/book/10.1007/978-981-13-7399-2
12. Edited a book: Mittal M., Balas V.E., **Goyal L. M.** and Kumar R., (2019), "Big Data Processing Using Spark in Cloud", under the book series Studies in Big Data being published by Springer, vol 43, 2018. ISBN-978-981-13-0550-4 https://doi.org/10.1007/978-981-13-0550-4
13. Edited a book: Roy, S., **Goyal, L. M.** & Mittal, M., (2021), "Advanced Prognostic Predictive Modelling in Healthcare Analytics", LNDECT, Springer. ISBN-978-981-334-236-1. https://link.springer.com/book/10.1007%2F978-981-16-0538-3

14. Edited a book: Khosla, P. K., Mittal, M., Sharma, D. & **Goyal, L. M.,** (2021), Predictive and Preventive Measures for Covid-19 Pandemic-Algorithm for Intelligent Systems, under the book series Algorithms for Intelligent Systems, Springer, ISBN-978-981-33-4236-1 https://doi.org/10.1007/978-981-33-4236-1
15. Edited a book: Agrawal, R., Mittal M., Sharma D. & **Goyal L. M.**, (2021), "Sustainability Measures for COVID-19 Pandemic", Computational Intelligence and Complexity, Springer, Singapore. ISBN- 978-981-16-3226-6. https://doi.org/10.1007/978-981-16-3227-3
16. Mittal, M., Arora, M., Pandey, T., & **Goyal, L. M.** (Dec. 2019). Image Segmentation Using Deep Learning Techniques in Medical Images. In *Advancement of Machine Intelligence in Interactive Medical Image Analysis*, Springer, Singapore, ISBN- 978-981-15-1100-4, pp. 41-63. https://doi.org/10.1007/978-981-15-1100-4_3
17. Mittal M, Sharma R. K., Singh V. P. and **Goyal L. M.**, (2016), "Modified Single Pass Clustering Algorithm Based on Median as a Threshold Similarity Value" *Collaborative Filtering Using Data Mining and Analysis.* IGI Global, pp. 24-48. (Scopus Indexed), ISBN-978-152-25-0489-4 https://doi.org/10.4018/978-1-5225-0489-4.ch002

International Conferences-

1. Chhetri B., **Goyal L. M.**, Mittal M., "Predictive analysis of inclination towards substance consumption using Psychological assessment and Machine learning approach", International Conference on Data Analytics & Management (ICDM-2024), 14-15 June 2024, London Metropolitan University, London, UK.
2. Sachdeva T., **Goyal L. M.**, Mittal M., "Navigating Data Sparsity: Strategies for Effective Recommendation System", International Conference on Data Analytics & Management (ICDM-2024), 14-15 June 2024, London Metropolitan University, London, UK.
3. Sachdeva T., **Goyal L. M.**, Mittal M., "A Comprehensive Study on Online and Offline Evaluation of Recommendation System", International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA-2023), 22-23rd April, 2023, ADGITM, Delhi.
4. Yogesh and Goyal L.M., "A Systematic Literature Review of Network Intrusion Detection System Models", International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA-2023), 22-23rd April, 2023, ADGITM, Delhi.
5. Chhetri B., **Goyal L. M.**, Mittal M., "Identifying Predictors for Substance Consumption Pattern using Machine Learning Techniques", Proc. International Conference on Intelligent Cyber-Physical Systems (ICPS 2021), Jaipur, pp. 110-115, Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-16-7136-4_9
6. Arora M., **Goyal L. M.**, Chintalapudi N. and Mittal M., "Factors affecting digital education during Covid-19: A statistical modeling approach", 2020 5th International Conference on Computing, Communication and Security (ICCCS-2020), IIT Patna, 14-16th Oct. 2020. ISBN-978-1-7281-9180-5. https://doi.org/10.1109/ICCCS49678.2020.9277370
7. Sansanwal K., Mittal M. and **Goyal L. M.**, "Prediction of Rise in Violence Inclined Opinions Utility of Sentiment Analysis in the Modern World", Communication and Intelligent System (ICCIS-2019), SKIET Jaipur, LNNS, 120, Springer Nature Singapore, pp. 149-159. ISBN-978-981-15-3325-9. https://doi.org/10.1007/978-981-15-3325-9_12
8. Mittal M., Singh H., Paliwal K. K. and **Goyal L. M.,** "Efficient Random Data Accessing in MapReduce", International Conference on Infocom Technologies and Unmanned System (ICTUS 2017), Amity University Dubai, pp. 552-556, Dec. 18-20, 2017. ISBN- 978-1-5386-0514-1 http://ieeexplore.ieee.org/document/8286070/

9. Gupta A., Gusain K and **Goyal L. M.**, "Improved FP-Linked list Algorithm for Association Rule Mining," International Conference on Compute Communication and Computational Sciences (IC4S), ACERC, Ajmer, pp. 559-569, August 12-13, 2016. ISBN- 978-981-10-3773-3 https://doi.org/10.1007/978-981-10-3773-3_54
10. **Goyal L. M.**, Beg M. M. S., "Evaluation of filtration and pruning approach for Apriori algorithm," International Conference on Computer and Communication Technology (ICCCT), MNNIT Allahabad, pp. 23-28, 26-28 Sept. 2014. ISBN- 978-1-4799-6758-2 http://dx.doi.org/10.1109/iccct.2014.7001464
11. **Goyal L. M.** and Beg M. M. S., "Improved filtration step for mining association rules," International Conference on Data Mining and Intelligent Computing (ICDMIC), IGDTUW Delhi, pp. 1-4, 5-6 Sept. 2014. ISBN-978-1-4799-4674-7 http://ieeexplore.ieee.org/document/6954245/
12. **Goyal L. M.** and Beg M. M. S., "An efficient filtration approach for mining association rules," International Conference on Computing for Sustainable Global Development (INDIACom), Bharati Vidyapeeth's Delhi, pp. 178-185, 5-7 March 2014. (Scopus Indexed) ISBN-978-93-80544-12-0 http://dx.doi.org/10.1109/indiacom.2014.6828124
13. **Goyal L. M.**, Johari R., Mittal M. and Kaushal V. P., "Automatic detection of Clusters", In Proc. of ICADABAI- 2009, **IIM-Ahmedabad**, pp. 67. http://www.scribd.com/doc/28897644/27/Automatic-Detection-of-Clusters

Experience

1. Assistant Professor, November 2018 to till date, JCBUST, YMCA Faridabad.
2. Assistant Professor, Jan 2016 to August 2018 (2½ Yrs.), Bharti Vidyapeeth's College of Engineering, New Delhi.
3. Assistant Professor, July 2012 to July, 2015 (3 Yrs), NIET, Greater Noida (U.P.)
4. Assistant Professor, Aug. 2010-July 2012 (2 Yrs.) LFMVNIET Palwal (Hr.)
5. Lecturer, August 2005-June 2010 (5 Yrs) Apeejay College of Engg, Sohna, Gurgaon (Hr.)
6. Lecturer, July 2004-July 2005 (1 Yr), BSAITM, Faridabad (Hr.)
7. Lecturer, Feb. 2003 - June-2004 (1½ Yrs.) HCTM, Kaithal (Hr.)

Professional Services and Award

1. Keynote talk at Central University of Punjab, Bathinda Punjab, on the topic "Evolution of Smart City" on 18th Jan. 2025.
2. Keynote talk at IIT ISM, Dhanbad, on the topic "Documenting the Research" on 21st Nov. 2024.
3. Keynote talk at Symbiosis Skills & Professional University, Pune, on the topic "Evolution of Smart Home and its Security Perspective" on 12th March 2024
4. Keynote talk at JCBUST, YMCA, Faridabad on the topic "Evolution of Smart Cities" on 2nd March 2023
5. Keynote talk at NIT, Kurukshetra on the topic "Adoption of IKS in Computer Science Books: Challenges and Importance" on 25th May 2022.
6. Keynote talk at DTU East Delhi Campus on the topic "Machine Learning and Metrics for Data Analysis" on 20th May 2022
7. Keynote talk at Echelon Institute of Technology, Faridabad on the topic "AI in Smart Cities" and "Research Paper Writing" on 26th March, 2022.
8. Series Editor with CRC Press (Taylor & Francis) for the series titled "Innovations in Multimedia, Virtual Reality and Augmentation"
9. Keynote Speaker for MSIT, New Delhi on 8th March 2021 on the topic "Evolution of Smart Cities".
10. Keynote Speaker for Kalasalingam Academy of Research and Education (Deemed to be University), Krishnankoil, Tamil Nadu on 07th Jan. 2021 on the topic "**Reinforcement Learning"**.
11. Keynote Speaker at AIET, Jaipur on 18th Dec. 2020 on the topic "**Genetic Algorithm"**.
12. Keynote Speaker at BFCET, Bathinda, Punjab on 12th Dec. 2020 on the topic "**AI in Smart Cities".**

13. Keynote Speaker for MRIU, Faridabad on 25th August, 2020 on the topic "**Supervised and Unsupervised Learning methods**".
14. Keynote Speaker on 10th July, 2020 at BVCOE, New Delhi on the topic "**Evolution of Smart Cities**".
15. Keynote Speaker on 17th June, 2020 at Aggarwal College, Ballabgarh on the topic "**Google Classroom**".
16. Keynote Speaker on 17th March, 2020 at Holy Cross College, Trichy on the topic "**Evolution of Smart Cities**".
17. Keynote Speaker on 23rd Nov., 2019 at CDAC, Mohali (Punjab) on the topic "**Distributed Association Rule mining**".
18. Expert Talk at Satyug Darshan, Faridabad on 06th Sept. 2019 on the topic "**Parallel Association Rule Mining**".
19. Keynote Speaker on 01st May, 2019 at GNIOT, Gr. Noida, U.P. on the topic "**Privacy Preserving Association Rule Mining**".
20. Keynote Speaker at ICIM'19 on 16th March 2019 at BFCET, Bathinda, Punjab on the topic "A**ssociation Rule Mining**".
21. Keynote Speaker at ICETCE-2019 on 02nd Feb., 2019 at SKIT, Jaipur, Rajasthan on the topic "**Data Mining**".
22. Keynote Speaker at ICCIDA-2018 on 26th Oct, 2018 at GIFT, Bhubaneswar, Odisha on the topic "**Probabilistic Association Rule Mining**".
23. Session Co-Chair at ICRITO-2017 on 20th Sept. 2017 at Amity University, Noida.
24. Session Chair at ICICCD-2017 on 16th April, 2017 at UPES, Dehradun, Uttrakhand.
25. Won 3rd prize at Smart India Hackthon-2017 as a Mentor of the team on 02nd April 2017.
26. Session Chair at SmartTech-2017 on 27th March, 2017 at Amity University, Rajasthan.
27. Convener at IndiaCom-2017 on 3rd March, 2017 at BVICAM, New Delhi.

Administrative Responsibilities

1. Coordinator of Lecture Capturing facility of the J. C. Bose Univ. of Sc. & Tech., YMCA, Faridabad.
2. Deputed as Deputy Superintendent for the Theory Examination for the even semester 2022-23 at J. C. Bose Univ. of Sc. & Tech., YMCA, Faridabad.
3. Deputed as Centre Superintendent for the Theory Examination for the even semester 2021-22 by J. C. Bose Univ. of Sc. & Tech., YMCA, Faridabad.
4. Deputed as Deputy Superintendent for the Odd Semester Theory Examination 2021-22 by J. C. Bose Univ. of Sc. & Tech., YMCA, Faridabad.
5. Organizing Member of one day webinar on 5G Technology: Bridge to Future" on 3rd July, 2021 at J. C. Bose Univ. of Science and Technology, YMCA, Faridabad.
6. Organizing Member of online FDP on "Data Analysis using R" from 11th July 2020 to 15th July 2020 organized by J. C. Bose Univ. of Science and Technology, YMCA, Faridabad.
7. Participated and Organized One day workshop of NPTEL on 31st Jan. 2020 organized by NPTEL, IIT Madras and J. C. Bose Univ. of Science and Technology, YMCA, Faridabad.
8. Organizing Member of 8th International Symposium on Fusion of Science and Technology from 06th Jan. 2020 to 10th Jan. 2020 organized by J. C. Bose Univ. of Science and Technology, YMCA, Faridabad.
9. Deputed as Deputy Superintendent for the Theory Examination May-19 & Dec-2018 by J. C. Bose Univ. of Sc. & Tech., YMCA, Faridabad.
10. Coordinator of the FDP on "Python Programming" on 09th Jan. 2018 at Brain Mentors Pvt. Ltd., Delhi.
11. Co-Convener of the FDP on "Cyber Crime and Security" held on 11-12th December, 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.

12. Coordinator of the FDP on "Deep Learning for Image and Text analysis with Python" on 27th Nov.-01st Dec. 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
13. Associate Editor of Journal of Multi-Disciplinary Engineering Technologies published by Bharati Vidyapeeth's College of Engineering, New Delhi since 2017.
14. Co-Convener of the workshop on "Parallel Computing using CUDA" held on 05th May, 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
15. Co-Convener of the workshop titled "Bio-Inspired Optimization Techniques" held on 20-21 April, 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
16. Course Coordinator of subject "Theory of Computation" at GGSIPU, Delhi for the year 2016-17.

FDP/WORKSHOP Attended

1. Participated in FDP on "Inculcating UHV in Technical Education from 13th Oct. 2023 to 15th Oct. 2023 at JCBUST, YMCA, Faridabad.
2. Completed an online FDP on "Effective Teaching of Machine Learning" Jan to May 2022 organized by IIIT, Delhi.
3. Completed an online ATAL FDP on "Parallel Algorithms for Computational Biology" from 06th Dec. 2021 to 10th Dec. 2021 organized by MANIT, Bhopal.
4. Completed 2-Week online Refresher Course in Computational and Mathematical Sciences organized by UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from 22nd Oct. to 5th Nov. 2021.
5. Completed an online ATAL FDP on "Parallel and Distributed Deep Learning" from 28th June 2021 to 02nd July 2021 organized by IIIT, Nagpur.
6. Participated and completed an online ATAL FDP on "Data Science" from 14th Dec. 2020 to 18th Dec. 2020 organized by Central University, Kerla.
7. Attended online FDP on "Data Analysis using R" from 11th July 2020 to 15th July 2020 organized by J. C. Bose Univ. of Science and Technology, YMCA, Faridabad.
8. Two weeks online FDP on "Digital Transformation in Teaching Learning Process" from 14th Feb. to 6th March 2020 organized by IIT Bombay.
9. Attended an FDP on "Basics to Advances in Structural Equation Modelling" from 17th Feb. 2020 to 21st Feb. 2020 at IIMK, Kochi Campus, Kerala.
10. Participated and completed an online 8-Weeks NPTEL-AICTE FDP on "Introduction to Machine Learning" July-Sept 2019.
11. Attended a Workshop on "Grant Writing & Management" from 26th Nov. 2018 to 28th Nov. 2018 at JNU, New Delhi.
12. One week FDP on "Medical Image Computing: Machine-learning methods and Advanced-MRI applications" from 23rd July- 27th July 2018 at IIT, Bombay
13. Two days Summer Training on Regression and Deep Learning from 11th June-12th June 2018 at SAU, New Delhi.
14. One day seminar on "Cyber Crime: Awareness and Defense" on 09th March 2018 at Bharati Vidyapeeth's College of Engineering, New Delhi.
15. One day FDP on "Python Programming" on 09th Jan. 2018 at Brain Mentors Pvt. Ltd., Delhi.
16. One week FDP on "Deep Learning for Image and Text analysis with Python" on 27th Nov.-01st Dec. 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
17. Two days FDP on "Cyber Crime & Security" on 11-12th Dec. 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
18. One day seminar on "Recent Trends in ML and Evolutionary Computing" on 23rd May 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
19. Eight days training on Cloud Computing with Node.js from **VMDD Technologies** on 11th May-18th May 2017.

20. One day workshop titled "Parallel Computing using CUDA" held on 05th May, 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
21. One day seminar titled "New Education Policies, Expectation and Challenges" on 29th April, 2017 at **YMCA, Faridabad**.
22. Two days workshop titled "Bio-Inspired Optimization Techniques" held on 20-21 April, 2017 at Bharati Vidyapeeth's College of Engineering, New Delhi.
23. Two days international workshop on Big Data Analytics (WBDA-2017) on March 17-18, 2017 at JNU, New Delhi.
24. One week STC on Sustainable Environment Management through ICT on February 27-03 March 2017 recognized by AICTE approved by Ministry of HRD, GOI organized by NITTTR, Chandigarh at Bharati Vidyapeeth's College of Engineering, New Delhi.
25. One day workshop on Nature Inspired Optimization Technique on 21st January 2017 at MRIU, Faridabad.
26. One week FDP on "Spatial Data Mining" on 26th-30th December 2016 at JNU, New Delhi. (Under GIAN-MHRD scheme)
27. One week FDP on "Data Science and Machine Learning" on 07th-12th Nov. 2016, at Bharati Vidyapeeth's College of Engineering, New Delhi.
28. Two days Brain Storming session on ICPS on 27-28th Sept. 2016 at IIT-BHU Varanasi conducted by DST, New Delhi.
29. One week FDP on Database Programming with PL/SQL from Oracle Academy in July 2016 at Bharati Vidyapeeth's College of Engineering, New Delhi.
30. Two weeks training on Cloud Computing from **VMDD Technologies** in April 2016.
31. One week workshop on Graph Mining and Analysis by **Prof. M. J. Zaki** at JMI, New Delhi on 17th Dec. -23rd Dec. 2015. (Under GIAN-MHRD scheme)
32. Attended three days winter school on "Big Data & Analysis" organized by I-CARE 2013 as a 5th IBM Collaborative Academia Research Exchange program on dated 17-19th October, 2013 at **IIIT, Delhi.**
33. Three days national workshop on "Data Analysis using SPSS" from 17th May 2012 to 19th May 2012 at JK Padampat Singhania Institure of Management & Technology, Gurgaon.
34. Three days research promotion workshop on "Introduction to Graph and Geometric Algorithm" from 28th Oct to 30th Oct. 2010 at Thapar University Patiala.
35. MHRD-AICTE sponsored Two weeks workshop on "Data Warehouse and Data Mining" from 25th May to 06th June 2009 at **NIT Trichy, Tamilnadu**.
36. Two days program on "Entrepreneurship" at Thapar University Patiala, Punjab in 2008.
37. AICTE sponsored Two weeks workshop on "Design and Analysis of Algorithm" at Thapar Universiy Patiala, Punjab from 26th May to 06th June 2008.

Subject Expertise

Theory of Computation, Design & Analysis of Algorithm, Data Structure, Discrete Mathematics, Data Mining

References

- Prof. M. N. Doja, Director, IIIT Sonepat (Hr.).
- Prof. M. M. Sufyan Beg, Principal, ZHCET, Aligarh Muslim University, Aligarh, U.P.
- Prof. Tanvir Ahmad, Department of Computer Engineering, JMI, New Delhi.
- Prof. Komal Kumar Bhatia, Chairman, CE, J.C. Bose University of Science and Technology, YMCA, Faridabad.
- Dr. R. K. Sharma, VC, JUIT, Solan (HP).
- Prof. Ashish Ghosh, ISI-Kolkatta.
- Dr. Rajiv Sharma, DST, Delhi