

# Maharaja Surajmal Institute of Technology

## Department of Information Technology

Volume IV

**TechByte**  
N E W S L E T T E R

Jan' 23 - Jun' 23

### What's Inside?

- Vision, Mission, PSOs
- Research Publications
- Book Chapters Published
- Books Published
- Faculty Achievements
- Student Achievements
- Events Organized
- Patent Published
- FDPs Attended

Maharaja Surajmal Institute of Technology was established in 2001 with the approval of AICTE for conducting B.Tech courses in IT, CSE, ECE, and EEE, and is affiliated to Guru Gobind Singh Indraprastha University, New Delhi.

We are a team of 28 full time faculty members, 5 technical assistants and more than 800 undergraduate students. We have devoted ourselves to surmount all challenges to impart and inculcate the best principles, processes, and practices in learning, teaching and research work in IT.



### Vision

To build a culture of innovation and research in students and make them capable to solve upcoming challenges of human life using computing.

### Mission

M1. To develop 'educational pathways' so that students can take their career towards success.

M2. To imbibe curiosity and support innovativeness by providing guidance to use the technology effectively.

M3. To inculcate management skills, integrity, honesty and human values through curricular, co-curricular and extra-curricular activities.

### Program Specific Outcomes

PSO 1: Ability to understand the principles and working of hardware and software aspects in information technology.

PSO 2: Ability to explore and develop innovative ideas to solve real world problem using IT skills.



# RESEARCH PUBLICATIONS

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1. P. Kaur, A. Kaushik et al. (2023), "Heart Diseases diagnosis using Chaotic Harris Hawk optimization with E-CNN for IoMT framework", Information technology and Control, ISSN: 2335-884X, SCIE Indexed (IF: 1.1), UGC-CARE
2. Kaur P., Kaushik, A. and Singh R. (2023), "Smart Complaint Box based on IoT and Cloud service to notify complaints", International Journal of Systems Assurance Engineering and Management, ISSN: 0976-4348, UGC-CARE, SCOPUS, ESCI Indexed
3. Kaur P. et al. (2023), "Talk Over: A Voice Chat Web Application based on WebRTC", International Journal of Computer Applications, Vol. 185, No. 15, pp. 54-58, ISSN: 0975-8887. DOI: 10.5120/ijca2023922844, Google Scholar
4. Kaur P. et al. (2023), "Sign language Translator using Machine Learning for communication with Deaf People", International Journal of Computer Applications, Vol. 185, No. 6, pp. 26-30, ISSN: 0975-8887. DOI: 10.5120/ijca2023922714, Google Scholar
5. P. Sharma, K. S. Saini and P. K. Sidhu (2023), "Fuzzy rule-based grey wolf (GW-FIS) in Wireless Body Area Networks," IEEE 8th I2CT, India, 2023, 7-9 April, DOI: <https://doi.org/10.1109/I2CT57861.2023.10126361>, ISBN: 979-8-3503-3401-2, Indexed in IEEEExplore
6. P. Kaur, M. Namboori, A. Pandey and K. Tyagi (2023), "Deep Learning based Smart Attendance System", WCAIAA2023 (World Conference on Artificial Intelligence: Advances and Applications, March 18-19, 2023, Indexed in Springer
7. Suman Mann, et. al. "Mess Management using NFC Tags", International Journal of Engineering Research and Applications, ISSN: 2248-9622, Vol. 13, Issue 4, April 2023, pp. 42-46, UGC-CARE
8. Ajay Kumar Phogat and Suman Mann, "Optimal Data Cube Computation In Serial Processing", Journal of Population Therapeutics and Clinical Pharmacology, vol. 30, no. 16, pp. 221-228, Jun. 2023. DOI:<https://doi.org/10.47750/jptcp.2023.30.16.029>, SCOPUS, ESCI Indexed
9. Suman Mann, Deepshikha Yadav, Dhruv Rathee, "Identification of Racial propaganda in Tweets using Sentimental Analysis models: A comparative Study", 4th Doctoral Symposium on Computational Intelligence (DoSCI-2023) - An International Conference, Institute of Engineering and Technology 3-4 March 2023, Indexed in Scopus
10. Suman Mann, Shubham Aggarwal, Samarth Jain, Satyarth Jha, "A Machine Learning Approach to Predict Software Faults", 4th Doctoral Symposium on Computational Intelligence (DoSCI-2023) - An International Conference, Institute of Engineering and Technology 3-4 March 2023, Indexed in Scopus
11. Sonika Malik. "Music Recommendation based on Facial Emotion Detection", International Journal of Computer Applications, 185(1):7-13, April 2023.

12. J. Arora, M. Tushir and S. K. Dadhwal, "A New Suppression-based Possibilistic Fuzzy c-means Clustering Algorithm" EAI Endorsed Transactions on Scalable Information (2023) Scopus, ESCI.
13. Ashish Kumari et al., "Popularity Prediction of Social Media Post Using Tensor Factorization," Intelligent Automation and Soft Computing, 2023, vol. 36, no. 1, pp. 205-221, ISSN: 2326-005 (Online).
14. P. Kumar and B. K. Singh, "Enhanced VANET Performance by Stable Cluster Head Selection Using Novel Stack of Algorithms," 2023 IEEE 12th International Conference on Communication Systems and Network Technologies (CSNT), Bhopal, India, 2023, pp. 810-815, doi: 10.1109/CSNT57126.2023.10134738.
15. Akshay Singh et al., "Smart Football Goal Predictor", International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol.10, Issue 3, page no. 272-277, March-2023, Google Scholar
16. Akshay Singh et al., "Reducing Cost and Friction in Customer Support through real-time Web Communications", International Journal of Novel Research and Development, ISSN:2456-4184, Vol.8, Issue 5, page no.742-744, May-2023, Google Scholar
17. Akshay Singh et al., "Driver Drowsiness Detection in Video Sequences using LSTM with CNN Features", International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol.10, Issue 6, page no. 668-675, June-2023, Google Scholar
18. Dalal, Renu, and Manju Khari. "Efficacious implementation of deep Q-routing in opportunistic network." Soft Computing (2023): 1-19, SCIE Indexed (IF: 4.1).
19. Dalal, Renu, Anupma Sangwan, and Manju Khari. "The Bibliometrics Assessment of Opportunistic Network Protocols & Simulation Tools." Telematics and Informatics Reports (2023): 100082. SCOPUS
20. S. Thangamayan, K. Pradhan, G. B. Loganathan, S. Sitender, S. Sivamani, and M. Tesema, "Blockchain-based secure traceable scheme for food supply chain," J. Food Qual., vol. 2023, pp. 1–11, 2023. SCIE.
21. Sitender, Sangeeta, Sushma, N.S., Sharma, S.K. (2023). Effect of GloVe, Word2Vec and FastText Embedding on English and Hindi Neural Machine Translation Systems. In: Khanna, A., Polkowski, Z., Castillo, O. (eds) Proceedings of Data Analytics and Management . Lecture Notes in Networks and Systems, vol 572. Springer, Singapore. [https://doi.org/10.1007/978-981-19-7615-5\\_37](https://doi.org/10.1007/978-981-19-7615-5_37) SCOPUS
22. Saba Khanum published a paper on A systematic literature review on sensitive data protection in blockchain applications in Concurrency and Computation: Practice and Experience Journal, Wiley 35(1), e7422 in (January,2023).SCI INDEXED
23. Tomer, M., Kumar, M., Hashmi, A. et al. Enhancing metaheuristic based extractive text summarization with fuzzy logic. Neural Comput & Applic 35, 9711–9723 (2023). <https://doi.org/10.1007/s00521-023-08209-5>. SCI Indexed IF 5.102

24. Raj, Geetanjali, Ankit Verma, Priya Dalal, Abhishek Kumar Shukla, and Puneet Garg. "Performance Comparison of Several LPWAN Technologies for Energy Constrained IOT Network." *International Journal of Intelligent Systems and Applications in Engineering* 11, no. 1s (2023): 150-158. SCOPUS
25. T. Sharma, P. Dalal, M. Kalra, Komal and A. Kureel, "BIT EXCHANGE: A Cryptocurrency Exchange System Based On Blockchain," 2023 1st International Conference on Innovations in High Speed Communication and Signal Processing (IHCSP), BHOPAL, India, 2023, pp. 295-299, doi: 10.1109/IHCSP56702.2023.10127154. SCOPUS
26. P. Dalal, T. Sharma, Y. Garg, P. Gambhir and Y. Khandelwal, "'JARVIS' - AI Voice Assistant," 2023 1st International Conference on Innovations in High Speed Communication and Signal Processing (IHCSP), BHOPAL, India, 2023, pp. 273-280, doi: 10.1109/IHCSP56702.2023.10127134. SCOPUS
27. P. Dalal, T. Sharma, N. Anand, and U. Kumar, "Detecting Malaria using Deep Learning Models ," *Journal of Data Acquisition and Processing (JCST)*, BHOPAL,, pp. 273-280, doi: 10.5281/zenodo.7766179. SCOPUS

# BOOK CHAPTERS PUBLISHED

1. Kaur P., Kaushik A., Kapoor A. (2023), "Skills and Responsibilities of Data Wrangler", *Data Wrangling & its Concepts, Applications and Tools*, Wiley Scrivener, ISBN: 978-1-119-87968-8
2. J. Arora, M.Tushir, P. Kherwa and S. Rathee "Generative Adversarial Networks: A Comprehensive Review." In *Book: Data Wrangling*, (213–234), 2023 Scrivener Publishing LLC.
3. Akshay Singh, Surender Singh, and Jyotsna Rathee. "Basic Principles of Data Wrangling." *Data Wrangling: Concepts, Applications and Tools* (2023): 1-17, Wiley Scrivener, ISBN: 978-1-119-87968-8

# BOOKS PUBLISHED

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1. Niranjnamurthy, M., Sheoran, K., Dhand, G., & Kaur, Prabhjot (Eds.), 2023, "Data Wrangling: Concepts, Applications and Tools", John Wiley & Sons, ISBN: 978-1-119-87968-8, Scopus Indexed.
2. T., Sharma, N., Anand, K., Gaurav, G., & Priya , 2023, "Data Science and Machine Learning Using Python ", Alpha International Publication, ISBN: 978-9-357-62076-5.

1. Dr. Prabhjot Kaur published a Scopus indexed Book with the Title "Data Wrangling: Concepts, Applications and Tools." John Wiley & Sons. ISBN: 9781119879688.
2. Dr. Prabhjot Kaur and Dr. Anupama Kaushik received the Excellence award for Grant of Indian Patent for the year 2022 on the occasion of Annual Day of MSIT held on 15th April, 2023.
3. Dr. Tripti Sharma, Dr. Prabhjot Kaur, Dr. Suman Mann, Dr. Anupama Kaushik, Dr. Sonika Malik, Dr. Jyoti Khurana, Ms. Meena Siwach, Mr. Parveen Kumar, Dr. Sandeep Singh, Ms. Mamta Gahlan , Ms. Ashish Kumari and Dr. Sitender were awarded Excellence in Research for the year 2022 during Annual Day of MSIT April 15, 2023 in recognition for an outstanding contribution to the institution in academic, research & publications and co-curricular activities.
4. Dr. Suman Mann participated as session chairperson in the International Conference on 4th DOCTORAL SYMPOSIUM ON COMPUTATIONAL INTELLIGENCE (DOSCI 2023) on 03-04 March 2023.
5. Dr. Suman Mann guided Mr. Ajay Phogat (06016494016) in his Ph.D. under GGSIPU.

# STUDENT ACHIEVEMENTS

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1. Aryan Anand (2020-2024 batch) received a certificate of excellence for being Chairperson at IEEE PES MSIT in January 2023.
2. Bhavesh Aggarwal (2021-2025) received a letter of appreciation for working as Graphic Designer and coordinator at Hack-a-miner, GDSC MSIT in January 2023.
3. Yuvraj Kumar Singh (2021-2025) received a letter of appreciation for being speaker at GDSC MSIT in March 2023.
4. Maanik Kapoor (2020-2024 batch) received a certificate of appreciation for working as Head of Committee during plantation drive and cloth donation drive in March 2023.
5. Baninderpreet Kaur Saini (2020-2024 batch) got internship at Infosys Springboard in January 2023.
6. Devesh Yadav (2020-2024 batch) won first prize in Hackathon organized by Vidyut SRCASW, University of Delhi on 16th January 2023.
7. Rohan Kumar (2020-2024 batch) received a cash prize of Rs. 12000 for winning Polygon Track in HACK JMI Hackathon on 11th February 2023.
8. Rohan Kumar (2020-2024 batch) was among top 5 active participants in Eduhub Winter Blockchain Chorot in January 2023.

## EVENTS ORGANIZED

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1. Dr. Suman Mann and Dr. Jyoti Khurana organized a one week faculty development program on “Recent advancement in machine learning and artificial intelligence from 6-2-2023 to 10-2-2023 held at MSIT.
2. Dr. Sonika Malik And Ms. Preeti organized a seminar on “How to build a good vocabulary”, on 26th May 2023 at MSIT.
3. Dr. Sunesh, Dr. Minakshi and Dr. Sitender organized an Expert Lecture on the topic ARTIFICIAL INTELLIGENCE on 14th June 2023. The Speaker of the Session was Mr. Jitender Kumar.

# PATENT PUBLISHED

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1. Dr. Renu Dalal & Ms. Nidhi Goel et al., “e-Authentication and notification system using Artificial Intelligence”, patent published on 4th February 2023 with application number 202311007240.

## FDPs ATTENDED

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1. Dr. Prabhjot Kaur completed a Swayam Course of 12 Weeks on “Blockchain and its Applications” from Jan-April 2023.
2. Dr. Prabhjot Kaur, Dr. Sonika Malik, Mr. Surender Singh, Mr. Akshay Singh, Dr. Priya Dalal, Ms. Priyanka Ms. Nidhi Goel and Dr. Renu Dalal attended 1 week FDP on the title “Re-Inventing Education Paradigm in India” from 20-24 February, 2023 organized by MSI.
3. Dr. Tripti Sharma, Dr. Prabhjot Kaur, Dr. Suman Mann, Dr. Anupama Kaushik, Dr. Sonika Malik, Dr. Jyoti Khurana, Ms. Meena Siwach, Mr. Surender Singh, Mr. Parveen Kumar, Dr. Sandeep Singh, Ms. Mamta Gahlan, Ms. Preeti Rathee, Ms. Ashish Kumari, Mr. Akshay Singh, Dr. Priya Dalal, Ms. Priyanka, Ms. Nidhi Goel and Dr. Renu Dala, Dr. Sitender, Dr. Minakshi, Dr. Tripti Rathee, Dr. Bharti Sharma, Dr. Sunesh Malik, Mr. Manoj Malik and Ms. Saba Khanum attended 1 week FDP on the Title “Recent Advancement in Machine Learning and Artificial Intelligence” from 6-10 February, 2023 organized by MSIT.
4. Dr. Suman Mann, Dr. Tripti Sharma, Dr. Priya Dalal and Dr. Sitender participated in 5 Day Faculty Development Program on Cloud Practitioner (AWS) conducted by ICT Academy on 26 June 2023 to 01 Jul 2023 at Maharaja Surajmal Institute of Technology.
5. Prof. Prabhjot Kaur, Prof. Tripti Sharma, Dr. Suman Mann, Dr. Anupama Kaushik, Dr. Sonika Malik, Mr. Surender Singh, Ms. Mamta Gahlan and Mr. Akshay Singh completed a Swayam Course of 12 weeks on “Accreditation of Undergraduate Engineering Programme”.
6. Ms. Ashish Kumari attended a one week faculty development program on “Demystifying Intellectual property for research & economic Development” from 13-3-2023 to 17-3-2023 organized by DTU, Delhi.
7. Dr. Sitender completed two courses from coursera on Google Cloud Big Data and Machine Learning and Modernizing Data Lakes and Data Warehouses with Google cloud (four weeks program) from 14-01-2023 to 28-01-2023 and from 28-01-2023 to 11-02-2023.
8. Ms. Priyanka and Dr. Priya Dalal have participated in a professional development workshop on Digital Creativity Skills as a part of “Adobe Academic Essentials” program.



**Chief Editor:**

Prof. Prabhjot Kaur  
(Head of Department, IT)

**Editor:**

Mr. Akshay Singh  
(Assistant Professor, IT)

**Designed by:**

Sunaina Rustagi  
(4th Year, IT)