FACULTY PROFILE

Name: Dr. Abhilasha Singh

Designation: Associate Professor

E_Mail: abhilass1@srmist.edu.in

Professional Qualification:

- ➢ Ph. D, Amity University, 2019

- ➢ M.Tech (IT), Banasthali University, 2010

Publications (Journals & Conferences):

- ➢ Abhilasha Singh, Malay Kishore Dutta, "An Integrity Control System for Retinal Images Based on Watermarking", Multimedia Tools and Applications, 81, pp. 2429–2452, 2022
- ➢ Abhilasha Singh, Malay Kishore Dutta, "A Robust Zero-Watermarking Scheme for Tele-Ophthalmological Applications", JKSU-Computer and Information Sciences, Elsevier, Volume 32, Issue 8, pp. 895-908, 2020
- ➢ Abhilasha Singh, Malay Kishore Dutta, "Wavelet Based Reversible Watermarking System for Integrity Control and Authentication in Tele-Ophthalmological Applications", Int. J. of Electronic Security and Digital Forensics, Vol.8, No.4, pp.392 – 411, 2016,
- ➢ Abhilasha Singh, Malay Kishore Dutta, "A Reversible Data Hiding Scheme for Efficient Management of Tele-Ophthalmological Data", International Journal of E-Health and Medical Communications, IGI Global Publishers, USA, Vol. 8, Issue 3, pp. 38-54, 2017,
- ➢ Pratibha Chaudhary, Ritu Gupta, Abhilasha Singh, Pramathesh Majumder and Ayushi Pandey, "Joint image compression and encryption using a novel column-wise scanning and optimization algorithm", Procedia Computer Science 167, pp. 244–253, 2020
- ➢ Gulpreet Kaur Chadha, Aakarsh Shrivastava, Abhilasha Singh, Ritu Gupta and Deepanshi Singla, "An Automated Method for Counting Red Blood Cells using Image Processing", Procedia Computer Science, Volume 167, Pages 769-778, 2020

- Samman Sinha, Abhilasha Singh, Ritu Gupta, Shreya Singh, "Authentication and Tamper Detection in Tele-medicine using Zero Watermarking", Procedia Computer Science 132, pp. 557–562, 2018

- Abhilasha Singh, Malay Kishore Dutta, "A Reversible Data Hiding Scheme for Efficient Management of Tele-Ophthalmological Data", Ophthalmology: Breakthroughs in Research and Practice, Information Resources Management Association (USA), IGI Global, January 2018 (ISBN 9781522551959)

- Abhilasha Singh, Shivani Agarwal, "Clouds Based License Plate Based Recognition for Smart City Using Deep Learning", Cloud-based Intelligent Informative Engineering for Society 5.0, Taylor and Francis, 2023 (ISBN 9781032101514)

- Abhilasha Singh, Ritu Gupta, Arun Kumar, "CNN Based Oral Cancer and Dental Caries Detection for Computer Aided Diagnosis", Artificial Intelligence and Blockchain in Industry 4.0, Taylor and Francis, 2023 (ISBN 9781032460581)

- R. Behl, A. Singh and A. Sinha, "A Study on Cloud-based data integrity of outsourced data using Blockchain," 2022 5th International Conference on Contemporary Computing and Informatics (IC3I), Uttar Pradesh, India, 2022, pp. 1193-1198, doi: 10.1109/IC3I56241.2022.10073235.

- Rahul Gupta, Tushar Gupta, Naman Gupta, Aditya Srivastava, Ritu Gupta, Abhilasha Singh, "Gait Recognition Biometric System" in 2nd International Conference on Data Analytics and Management (ICDAM-2021), pp 29-40, 2022

- Ashish, Pramod Yadav, Ritu Gupta, Abhilasha Singh, "Decontamination Box using UV light" in 2nd International Conference on Data Analytics and Management (ICDAM-2021), 2021

- Manvika Gaur, Ritu Gupta, Abhilasha Singh, "Use of AES Algorithm in development of SMS Application on Android Platform" 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2021, pp. 1-5, doi: 10.1109/ICRITO51393.2021.9596488.

- Mukul Goswami, Mohak Maheshwari, Prangshu Dweep Baruah, Abhilasha Singh, Ritu Gupta, "Automated Detection of Oral Cancer and Dental Caries Using Convolutional Neural Network", 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2021, pp. 1-5, doi: 10.1109/ICRITO51393.2021.9596537.

- Shruti Joshi, Soumya Sharma, Abhilasha Singh, Ritu Gupta, "Data Mining Classification Techniques to Assign Individual Personality Type and Predict Job Profile", 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2021, pp. 1-5, doi: 10.1109/ICRITO51393.2021.9596511.

- Siddharth Sharma, Abhilasha Singh, Ritu Gupta, "Automated Kidney Stone Detection Using Image Processing Techniques", 9th International Conference on Reliability,

Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2021, pp. 1-5, doi: 10.1109/ICRITO51393.2021.9596175.

➢ Vishal Choudhary, Malay Kishore Dutta and Abhilasha Singh, "Reversible Watermarking scheme for Authentication and integrity control in Biometric Images", in ISCON 2019, 21-22 Nov. 2019

➢ Ankita Dwivedi, Malay Kishore Dutta and Abhilasha Singh, "Wavelet-SVD based Zero-Bit Watermarking for Securing Biometric Images", in ISCON 2019, 21-22 Nov. 2019

➢ Pratibha Chaudhary, Ritu Gupta, Abhilasha Singh and Pramathesh Majumder, "Analysis and Comparison of Various Fully Homomorphic Encryption Techniques", in GUCON on 27-28th September, 2019, Galgotia University

➢ Vishal Choudhary, Malay Kishore Dutta, Abhilasha Singh, "Wavelet based robust watermarking scheme for copyright enforcement and integrity control in tele-ophthalmology", accepted and presented in International Conference On Advances In Electronics, Electrical & Computational Intelligence, 2019

➢ Abhilasha Singh, Malay Kishore Dutta, "Lossless and Robust Digital Watermarking Scheme for Retinal Images", International Conference on Computational intelligence and communication technology, pp. 1-5, 2018.

➢ Abhilasha Singh, Malay Kishore Dutta, Jiri Pirinosil, Kamil Riha, "Wavelet based robust watermarking scheme for copyright enforcement and integrity control in tele-ophthalmology", 8th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT), pp. 392-411, 2016, ISBN/ISSN- 1751-9128

➢ Malay Kishore Dutta, Anushikha Singh, Abhilasha Singh, Radim Burget, Jiri Prinosil "Digital Identification Tags for Medical Fundus Images for Tele-Ophthalmology Applications" 37th IEEE International Conference on Telecommunications and Signal Processing , pp- 678-681, July 2015, ISBN/ISSN- 978-1-4799-8498-5

➢ Abhilasha Singh, Malay Kishore Dutta, "A Blind and Fragile Watermarking Scheme for Tamper Detection of Medical Images Preserving ROI", IEEE International Conference on Medical Imaging, m-Health and Emerging Communication Systems, pp. 230-234, November 2014, ISBN/ISSN- 978-1-4799-5097-3

➢ Sakshi Garg, Angadpreet Walia, Abhilasha Singh, Anju Mishra, "A Study on Shape Detection: An Unexplored Parameter in the Gall Stones Identification", International Conference on Smart Systems, Innovation and Computing, pp. 445-454, April 2017.

➢ Ritu Gupta, Shikha Karwal, Pulkit Mundra, Abhilasha Singh, "DWT-SVD Based Watermarking Scheme of JPEG Images using Elliptic Curve Cryptography " in 5th International Conference on Reliability, Infocom Technologies and Optimization(ICRITO 2016) during 7-9th September, 2016 at Amity University Uttar Pradesh.(Scopus Indexed).

➢ Abhilasha Singh, Richu Thakur, Jyotsana Nigam, Ritu Gupta, Arun Kumar, " Wavelet Based Robust Watermarking Technique for Integrity Control in Medical Images " in

ICMETE during 22-23 September, 2016 at SRM University, Modinagar, Ghaziabad.(Scopus Indexed)

- Archit Sood, Sainyam Khanna, Ritu Gupta and Abhilasha Singh," Analysing, Designing, Implementation and Coding E-commerce through UX", at the International Conference on Wireless, Intelligent and Distributed Environment for Communication (WIDECOM 2018) on February 16-18, 2018, SRM University, Delhi-NCR, India published in Springer.(Scopus Indexed)
- Rana Majumdar, Ritu Gupta and Abhilasha Singh," Software Performance Measuring Benchmarks", at the International Conference on Wireless, Intelligent and Distributed Environment for Communication (WIDECOM 2018) on February 16-18, 2018, SRM University, Delhi-NCR, India published in Springer.(Scopus Indexed).
- Sakshi Srivastava, Abhilasha Singh and Ritu Gupta," Automatic Detection of Eczema Using Image Processing", at the International Conference on Wireless, Intelligent and Distributed Environment for Communication (WIDECOM 2018) on February 16-18, 2018, SRM University, Delhi-NCR, Sonepat, Haryana, India published in Springer.(Scopus Indexed).
- Deepanshi Singla, Abhilasha Singh and Ritu Gupta," Texture Analysis of Fruits for its Deteriorated Classification", at the International Conference on Wireless, Intelligent and Distributed Environment for Communication (WIDECOM 2018) on February 16-18, 2018, SRM University, Delhi-NCR, Sonepat, Haryana, India published in Springer.(Scopus Indexed).
- Shreya Singh, Abhilasha Singh, Ritu Gupta, Samman Sinha, " Automatic Segmentation of Melanoma affected region for Computer-Aided Diagnosis" in GUCON 2018 in Galgotias University.

Workshops/Seminars/FDPs

- Participated & completed successfully FDP on Artificial Intelligence for Medical Image Processing from 30-01-2023 to 08-02-2023 organized by Electronics and ICT Academy and NIT Warangal
- Participated & completed successfully FDP on Wearable Devices for IoT and Microwave Infrastructure from 20-12-2022 to 25-12-2022 organized by Dept. of ECE, SRM IST, Delhi-NCR Campus.
- Participated & completed successfully FDP on Cyber Security: Managing Risk in the Information Age from 12-10-2022 to 16-10-2022 organized by Department of Computer Science & Engineering, Dr B R Ambedkar National Institute of Technology Jalandhar
- Participated & completed successfully FDP on Recent Trends and Advances on Machine Learning from 12-09-2022 to 16-09-2022 organized by Electronics and ICT Academy and IIT Roorkee.
- Participated & completed successfully AICTE sponsored 6 days Short Term Training Program on "Machine Learning and Computer Vision" from 07-03-2022 to 12-03-2022 organized by Tripura Institute of Technology.

- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Recent Trends and Advancements in ANN and Deep Learning for Real Time Applications" from 20-12-2021 to 24-12-2021.
- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Machine Learning in Infotainment Systems" from 13-12-2021 to 17-12-2021.
- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Computer Science & Biology" from 19-10-2020 to 23-10-2020 at SRM IST, Delhi-NCR Campus.
- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Internet of Things" from 07-05-2020 to 11-05-2020 at NIT JAMSHEDPUR.
- Attended 5 days online workshop on Artificial Intelligence: Machine Learning and Deep Learning from 29th June to 3rd July 2020
- Participated in three-Day Online Faculty Development Program on "IT Trends POST COVID 19" held from 21st to 23rd May 2020 at AMITY UNIVERSITY UTTAR PRADESH, NOIDA.

Work Experience: 13+ Years in academics

Professional Memberships:

- ISTE

- IAENG

- UACEE