

## Faculty Profile

Name : Dr. Savita  
Designation : Associate Professor  
Qualifications : PhD, M.Tech., B.E.  
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Email : [savita.ahlawat@msit.in](mailto:savita.ahlawat@msit.in)  
Area of Interest/Specialization: Machine Learning, Deep Learning,  
Artificial Intelligence, Computer Vision



Experience : 19+ years

### Key Publications

1. A. Choudhary, **S. Ahlawat**, S. Urooj, N. Pathak, Aimé . Lay-Ekuakille, and N. Sharma, “ A Deep Learning-Based Framework for Retinal Disease Classification”, Healthcare, Volume 11, Year 2023, DOI: 10.3390/HEALTHCARE11020212
2. N. Bohra, V. Bhatnagar, A.Choudhary, **S. Ahlawat**, D.Sheoran, A.Kumari, “ 2. Popularity Prediction of Social Media Post Using Tensor Factorization” Intelligent Automation and Soft Computing, Volume 36, Year 2023, Pages 205-221
3. J.Bindra, **S.Ahlawat**, M.Javed, “Modified COVID-19 Indian and international dataset for automatic prediction of risk in an individual using machine learning models using a mobile APP,” International Journal of Intelligent Engineering Informatics, 2021.
4. **S.Ahlawat**, A. Choudhary, A.Nayyar, S. Singh, B. Yoon, “Improved Handwritten Digit Recognition Using Convolutional Neural Networks (CNN)”, Sensors, Vol 20 No.12, pp.3344-3362, 2020
5. **S.Ahlawat**, A.Choudhary, “Hybrid CNN-SVM Classifier for Handwritten Digit Recognition”, Procedia Computer Science, Vol.167, pp. 2554-2560, 2020, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2020.03.309>.
6. **S. Ahlawat**, A. Choudhary, “Off-line Handwritten Character Recognition using Geometric Moment Features and Fuzzy Clustering, International Journal of Recent Technology and Engineering (IJRTE), Vol. 8, No.1, pp. 3001-3006, 2019
7. **S. Ahlawat**, R. Rishi, “A Genetic Algorithm Based Feature Selection for Handwritten Digit”, Recent Patents on Computer Science, Vol.12, No. 4, pp. 304-316, 2019
8. A.Choudhary, **S. Ahlawat**, “Off-line Handwritten Character Recognition using Geometric Moment Features and Fuzzy Clustering”, published in International Journal of Recent Technology and Engineering (IJRTE), Vol.8, Issue1, pp.3001-3006, ((ISSN:2277-3878), 2019.
9. A.Choudhary, R. Rishi, **S.Ahlawat**, A New Approach to Detect and Extract Characters from Off-Line Printed Images and Text” published in Elsevier’s Procedia Computer Science Journal, (ISSN: 1877-0509), Vol. 17, pp. 88-95, May 2013,

10. A.Choudhary, R. Rishi, **S.Ahlawat**, “A New Character Segmentation Approach for Off-Line Cursive Handwritten Words” Elsevier’s Procedia Computer Science Journal, (ISSN: 1877-0509), Vol. 17, pp. 434-440, May 2013
11. A.Choudhary, R. Rishi, **S.Ahlawat**, “Off-Line Handwritten Character Recognition using Features Extracted from Binarization Technique” in Elsevier’s AASRI Procedia Journal (ISSN: 2212-6716), Vol. 4, pp. 313-318, Nov 2013.
12. A.Choudhary, R. Rishi, **S.Ahlawat**, V.Dhaka, “Optimal Feed Forward MLP Architecture for Off-Line Cursive Numeral Recognition” published in International Journal on Computer Science and Engineering , Vol. 02, No.01S, pp. 1-7, 2010 (ISSN: 0975-3397)
13. A.Choudhary, R. Rishi, V.Dhaka, **S.Ahlawat**, “Influence of Introducing an Additional Hidden Layer on the Character Recognition Capability of a BP Neural Network having One Hidden Layer” published in International Journal of Engineering and Technology (IJET) ISSN: 0975–4024.
14. A.Choudhary, R. Rishi, **S.Ahlawat**, V.Dhaka, “Totally Unconstrained Handwritten Character Recognition using Improved BP Neural Network”, International Journal of Information Technology & Knowledge Management (IJITKM), 2010

#### Papers presented in Conferences

1. **S. Ahlawat**, A. Choudhary, C. Wadhwa, H. Joshi, R. Shokeen, “Colorizing Black and White Images Using Deep ConvNets and GANs, Colorizing Black and White Images Using Deep ConvNets and GANs. In: Khanna, A., Polkowski, Z., Castillo, O. (eds) Proceedings of Data Analytics and Management. Lecture Notes in Networks and Systems, vol 572. Springer, 2023.
2. J. Bindra, B.Rajesh, **S.Ahlawat**, “Deeper into Image Classification. In: Gupta D., Khanna A., Bhattacharyya S., Hassanien A.E., Anand S., Jaiswal A. (eds) International Conference on Innovative Computing and Communications. Advances in Intelligent Systems and Computing, vol 1166, pp 69-81, 2021, Springer, Singapore. [https://doi.org/10.1007/978-981-15-5148-2\\_7](https://doi.org/10.1007/978-981-15-5148-2_7)
3. P.Kherwa., **S.Ahlawat**, R. Sobti, S. Mathur, G.Mohan, "Predicting Socio-economic Features for Indian States Using Satellite Imagery" International Conference on Innovative Computing and Communications(ICICC-2020), pp 497-508, 2020
4. A. Choudhary, **S. Ahlawat**, H.Gupta, A. Bhandari, A.Dhall, M. Kumar, “Offline Handwritten Mathematical Expression Evaluator Using Convolutional Neural Network”. In: Gupta D., Khanna A., Bhattacharyya S., Hassanien A.E., Anand S., Jaiswal A. (eds) International Conference on Innovative Computing and Communications. Advances in Intelligent Systems and Computing, vol 1166, pp 527-537, 2021 Springer, Singapore. [https://doi.org/10.1007/978-981-15-5148-2\\_47](https://doi.org/10.1007/978-981-15-5148-2_47)
5. **S.Ahlawat**, V. Batra, S.Banerjee, J.Saha,A.K.Garg, “Hand Gesture Recognition Using Convolutional Neural Network”. In: Bhattacharyya S., Hassanien A., Gupta D., Khanna A., Pan I. (eds) International Conference on Innovative Computing and Communications. Lecture Notes in Networks and Systems, vol 56, pp 179-186, Springer, Singapore. [https://doi.org/10.1007/978-981-13-2354-6\\_20](https://doi.org/10.1007/978-981-13-2354-6_20), 2019

#### Awards and Recognitions

Got letter of appreciation from President, Surajmal Memorial Education Society for rendering excellent services for the growth of the institute.

### Memberships of Professional bodies

1. The Institute of Electrical and Electronics Engineers (IEEE)- (Membership Number-92498810)
2. Indian Society of Technical Education (I.S.T.E)- (Membership Number-108182)

### Other Contributions

1. Currently Program Officer of NSS cell of MSIT and In-charge of Prakriti- the Environmental and Humanitarian Society of the Maharaja Surajmal Institute of Technology (MSIT).
2. Founder Chapter advisor of MSIT IEEE CS Chapter from Dec 2012 to Aug 2021 which include arranging special lectures, workshops, seminar for students on current technologies from leading I.T. Industry Experts for enhancing knowledge.
3. Head of Cultural society of MSIT from 2012 to 2015 which include organizing extra-curricular activities like IT festival, Anugoonj (IPU univ cultural festival) etc.
4. Programme Committee Member, Reviewer and session chair of many international conferences whose proceedings are published by Springer in LNCS, LNAI, CCIS & AISC Series etc.