


STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF UNIVERSITY WEBSITE

Title	Dr.	First Name	SANJAY KUMAR	Last Name	SINGH	
Designation		Assistant Professor				
School /Dept. Name		University School of Automation & Robotics(USAR), East Delhi Campus of Guru Gobind Singh Indraprastha University, New Delhi- 110092				
Address:		Flat No.T4A/1, Type -4, GGS IP University, East Delhi Campus, New Delhi- 110032				
Phone No.		Office				
		Residence	(optional)			
		Mobile	(optional)			
Email		sanjay.usar@ipu.ac.in		Sanjayksingh.012@gmail.com		
Web Page (if any)		https://sites.google.com/view/drsanjaykumarsingh/home				
Subjects Taught		<ul style="list-style-type: none"> • Deep and Reinforcement Learning • Machine Learning • Artificial Intelligence • Soft Computing • Computer Vision • Big Data Analytics • Artificial Neural Networks 				
Areas of Interest/ Specialization		<ul style="list-style-type: none"> • Intelligent Systems • Deep and Reinforcement Learning Algorithms and its Application • Soft Computing Techniques • Computer Vision Applications • Computer Assisted Medical Image Analysis 				
Experience (in years)		Total	12 years and 6 months			
		Industry	Nil			
		Teaching	12 years and 6 months <ul style="list-style-type: none"> • Assistant Professor at Lovely Professional University, Phagwara, India from July 2011 to April 2021. • Assistant Professor at ABES Engineering College, Ghaziabad, India from June 2021 to October 2022. • Assistant Professor (Regular) at University School of Automation & Robotics (USAR), East Delhi Campus, Guru Gobind Singh Indraprastha University from November 2022 till date. 			
		Research	Nil			

Educational Qualifications	Integrated Post Graduate (B. Tech + M. Tech)	ABV-Indian Institute of Information Technology & Management, Gwalior, India (Batch: 2006-2011)
	Doctorate	Computer Science & Engineering, IKG-Punjab Technical University, Jalandhar, India
	Any other – Diploma in IPR	NA
Research Publications in Journals (last 5 years)	<ul style="list-style-type: none"> Pranshu Saxena, Amit Sinha, Sanjay Kumar Singh*, (2024), “Computer-assisted interpretation, in-depth exploration and single cell type annotation of RNA sequence data using k-means clustering algorithm” <i>Computer Methods in Biomechanics and Biomedical Engineering</i>, (2024). DOI: 10.1080/10255842.2023.2300685 [SCIE 1.6] Sanjay Kumar Singh, Amit Sinha, Harikesh Singh, Aniket Mahanti, Abhishek Patel, Shubham Mahajan, Amit Kant Pandit & Vijayakumar Varadarajan (2023) "A novel deep learning-based technique for detecting prostate cancer in MRI images" <i>Multimedia Tools and Applications</i>, (2023). https://doi.org/10.1007/s11042-023-15793-0 [SCIE 3.6] Pranshu Saxena, Anjali Goyal, Mariyam Aysha Bivi, Sanjay Kumar Singh* and Mamoon Rashid, (2023) “Segmentation of Nucleus and Cytoplasm from H&E-Stained Follicular Lymphoma”, <i>Electronics</i>, Switzerland, 12(3):651. https://doi.org/10.3390/electronics12030651 [SCIE 2.69] Perumalla Murali Mallikarjuna Rao, Sanjay Kumar Singh*, Aditya Khamparia, Bharat Bhushan and Prajoy Podder, “Multi-class Breast Cancer Classification using Ensemble of Pretrained models and Transfer Learning”, <i>Current Medical Imaging</i>, United Arab Emirates, (2021) 17: 1. https://doi.org/10.2174/1573405617666210218101418. [SCIE 0.812] Sanjay Kumar Singh, Anjali Goyal, (2020) “Three Stage Cervical Cancer Classifier based on Hybrid Ensemble Learning with Modified Binary PSO using Pretrained Neural Networks”, <i>Imaging Science Journal</i>, United Kingdom, Vol 68, Issue 1, pp 41-55, 2020. https://doi.org/10.1080/13682199.2020.1734306 [SCI 1.023] Vikash Chouhan, Sanjay Kumar Singh*, Aditya Khamparia, Deepak Gupta, Prayag Tiwari, Catarina Moreira, Robertas Damaševičius, Victor H.C. de Albuquerque (2020) "A Novel Transfer Learning Based Approach for Pneumonia Detection in Chest X-ray Images" <i>Applied Science</i>, Switzerland, 10, no. 2: 559. https://doi.org/10.3390/app10020559[SCIE 2.474] Pranshu Saxena, Amit Sinha, and Sanjay Kumar Singh, “The outbreak of Corona Virus (2019-nCoV) in India: A Statistical case study”, <i>J Integr Sci Technol</i>, vol. 11, no. 4, p. 570, Jul. 2023. Sanjay Kumar Singh, Anjali Goyal, “A Stack Autoencoders Based Deep Neural Network Approach for Cervical Cell Classification in Pap-smear Images ”, <i>Recent Advances in Computer Science and Communications</i>, Netherlands, Vol. 14, Issue 1, pp. 62-70, 2021. https://doi.org/10.2174/1389202920666190313163414. Aditya Khamparia, Sanjay Kumar Singh and Ashish Kumar Luhach, “SVM-PCA based Handwritten Devanagari Digit Character Recognition”, <i>Recent Advances in Computer Science and Communications</i>, Netherland, Vol. 14, Issue 1, pp. 48-53, 2021. https://doi.org/10.2174/2213275912666181219092905. Sanjay Kumar Singh, Anjali Goyal, “Performance Analysis of Machine Learning Algorithms for Cervical Cancer Detection”, <i>International Journal of Healthcare Information Systems and Informatics</i>, United States, SCOPUS, ESCI, 15(2):1-21, 2020. https://doi.org/10.4018/IJHISI.2020040101 Aditya Khamparia, Sanjay Kumar Singh, Ashish Kumar Luhach, Xiao-Zhi Gao, “Classification and Analysis of Users Review using Different Classification Techniques in Intelligent E-learning System” <i>International Journal of Intelligent</i> 	

	<p>Information and Database Systems, United Kingdom, Vol.13, No.2-4, pp.139 – 149,2020, DOI: 10.1504/IJIDS.2020.109451</p>
<p>Papers Published in Conference Proceedings(last 5 years)</p>	<ul style="list-style-type: none"> • Sanjay Kumar Singh, Amit Sinha, Satyendra Yadav, "Performance Analysis of Machine Learning Algorithms for Erythematous-Squamous Diseases Classification", 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE), 2022, pp. 1-6, doi: 10.1109/ICDCECE53908.2022.9793000. • Pranshu Saxena, Sanjay Kumar Singh, Gyanendra Tiwary, Yush Mittal and Ishika Jain, "An Artificial Intelligence Technique for Covid-19 Detection with eXplainability using Lungs X-Ray Images," 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE), 2022, pp. 1-6, doi: 10.1109/ICDCECE53908.2022.9793240. • Peddamallu Jaya Prakash Reddy, Guntimadugu Viswanadh and Sanjay Kumar Singh, "IOT based Smart Water Pump Switch," 2021 2nd International Conference on Intelligent Engineering and Management (ICIEM), London, United Kingdom, 2021, pp. 534-538, doi: 10.1109/ICIEM51511.2021.9445278. • Shubham Kushwaha, Mohammad Adil, Mohammad Abuzar, Akib Nazeer and Sanjay Kumar Singh, "Deep learning-based model for breast cancer histopathology image classification," 2021 2nd International Conference on Intelligent Engineering and Management (ICIEM), London, United Kingdom, 2021, pp. 539-543, doi: 10.1109/ICIEM51511.2021.9445319. • Abhishek Patel, Sanjay Kumar Singh and Aditya Khamparia, "Detection of Prostate Cancer Using Deep Learning Framework", IOP Conference Series: Materials Science and Engineering, Volume 1022, 1st International Conference on Computational Research and Data Analytics (ICCRDA 2020), 24th October 2020, Rajpura, India. https://doi.org/10.1088/1757-899X/1022/1/012073 • Utkarsh Shrivastav, Sanjay Kumar Singh, Aditya Khamparia, "A Nobel Approach to Detect Edge in Digital Image Using Fuzzy Logic", 1st International Conference on Sustainable Technologies for Computational Intelligence, Advances in Intelligent Systems and Computing, vol 1045, pp. 63-74, 2020, Springer, Singapore. https://doi.org/10.1007/978-981-15-0029-9_6
<p>Books Authored/ Book Volume Chapters</p>	<ul style="list-style-type: none"> • Sanjay Kumar Singh, Aditya Khamparia, and Amit Sinha, Explainable Machine Learning Model for Diagnosis of Parkinson Disorder. In: Khamparia, A., Gupta, D., Khanna, A., Balas, V.E. (eds) Biomedical Data Analysis and Processing Using Explainable (XAI) and Responsive Artificial Intelligence (RAI). Intelligent Systems Reference Library, vol 222, April 2022. Springer, Singapore. https://doi.org/10.1007/978-981-19-1476-8_3 • Pratyush Shukla, Sanjay Kumar Singh, Aditya Khamparia and Anjali Goyal "9 Nature-inspired optimization techniques". Nature-Inspired Optimization Algorithms, edited by Aditya Khamparia, Ashish Khanna, Nhu Gia Nguyen and Bao Le Nguyen, Berlin, Boston: De Gruyter, ISBN 9783110676068 February 2021, pp. 137-152. https://doi.org/10.1515/9783110676112-009 • Murali Mallikarjuna Rao Perumalla, Sanjay Kumar Singh, Aditya Khamparia, Anjali Goyal, Ashish Mishra, "Machine Learning Frameworks and Algorithms for Fog and Edge Computing" Fog, Edge, and Pervasive Computing in Intelligent IoT Driven Applications, Chapter 4, Wiley, ISBN 9781119670070, pp 67-84, December 2020, https://doi.org/10.1002/9781119670087.ch4 • Utkarsh Shrivastav, Sanjay Kumar Singh "Digital Image Classification Techniques: A Comprehensive Review" Hidden Link Prediction in Stochastic Social Networks, Chapter 9, IGI Global, ISBN 9781522590965. pp. 162-187, May 2019. DOI: 10.4018/978-1-5225-9096-5.ch009.

No. of Conferences	National	Attended		Organized
		NA		NA
	International	12		2
Research Guidance	Awarded	PG	M. Phil	Doctorate
		19	NA	NA
	Undergoing	NA	NA	NA
Research Projects	Completed	NA		
	Undergoing	NA		
Awards & Distinctions	<ul style="list-style-type: none"> • Got AIR 4298 in All India Engineering Entrance Examination (AIEEE) 2006. • Got AIR 6820 in Graduate Aptitude Test in Engineering (GATE) 2014 CSE. • Best Paper Award for paper entitled “classification of uterine cervical cancer histology image using active contour region-based segmentation” received at Shannon100, 3rd international conference on computing sciences, 8-9 April, 2016. 			
Administrative Assignments Handled	<ul style="list-style-type: none"> • Research core Team member at ABES EC, Session 2022-23 • Research and Innovation Leader at Department of Information Technology, ABES EC, Session 2022-23 • Project coordinator of undergraduate project in department of IT, ABES EC, Session 2021-22 and Session 2022-2023 • Organizing Secretary of international conference on intelligent communication and computational research(ICICCR 2020) organized by Punjab institute of technology, Rajpura, India on 25th January, 2020.(https://icrlab.com/) • Convener of international conference on computational research and data analytics(ICCRDA 2020) jointly organized by Suleyman Demirel University and Isparta Applied Sciences University, Turkey and College of Engineering Roorkee, India on 24th October, 2020. (https://icrlab.com/) 			
Association with Professional Bodies	<ul style="list-style-type: none"> • Member of International Association for Engineers(ID:186496) • IEEE Member (ID: 93258582) • Annual Member of Indian Science Congress Association (ID-A1443) 			
Any other Achievements	NA			