

STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF UNIVERSITY WEBSITE

Title	Prof	FirstName	Navin	LastName	Rajpal	
Designation	Professor and Ex-Dean USICT GGSIP University Delhi					
School/Dept. Name	University School of Information Communication and Technology (USIC&T), GGS Indraprastha University					
Address:	University School of Information Communication and Technology, GGS Indraprastha University Sector 16-C Dwarka New Delhi-110078					
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Subjects Taught	Advanced Data Structures, Advanced Algorithm Analysis & Design, Foundation of Computer Science,					
Areas of Interest / Specialization	Computer Vision, Image Processing, Pattern Recognition, Artificial Neural Networks, Computer Graphics, GIS, Algorithms Design and Digital Hardware Design					
Experience(in years)	Total	36 yrs.				
	Industry					
	Teaching	28 yrs.				
	Research	08 yrs.				
Educational Qualifications	UG	B.Sc. (Engg.) in Electronics & Comm. Engg. From R.E.C.K. (now known as NIT Kurukshetra)				
	PG	M.Tech. (Computer Science & Engineering) from IIT Delhi				
	Doctorate	Ph.D. (Computer Science & Engineering) from IIT Delhi				
	Any other – Diploma in IPR					

**Research Publications
in Journals
(Last 5 years)**

Sl. No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISBN/ISSN number
	De-Speckling Techniques for T1 Weighted Brain MRI Images-A Statistical Comparison	Anjali Jain, Navin Rajpal, Rajesh Mehta	International Journal of Performability Engineering	2/1/2022	ISSN 0973-1318
1	Road network extraction using multi-layered filtering and tensor voting from aerial images	Pramod Kumar Soni, Navin Rajpal, Rajesh Mehta	The Egyptian Journal of Remote Sensing and Space Science	8/1/2021	https://doi.org/10.1016/j.ejrs.2021.01.004
2	Application-specific Discriminant analysis of cardiac anomalies using shift-invariant Wavelet transform	Ritu Singh, Navin Rajpal, Rajesh Mehta	International Journal of E-Health and Medical Communications (IJEHMC)	7/1/2021	https://doi.org/10.4018/IJEHMC.20210701.0a5
3	An Empiric Analysis of Wavelet-Based Feature Extraction on Deep Learning and Machine Learning Algorithms for Arrhythmia Classification.	Ritu Singh, Navin Rajpal, Rajesh Mehta	International Journal of Interactive Multimedia & Artificial Intelligence 6 (6)	6/1/2021	https://doi.org/10.9781/ijimai.2020.11.005
4	Urban land cover and land use classification using multispectral sentinel-2 imagery	Pramod Kumar Soni, Navin Rajpal, Rajesh Mehta	Multimedia Tools and Applications	5/13/2021	https://link.springer.com/article/10.1007%2Fs11042-021-10991-0
5	Road Centerline Extraction From VHR Images Using SVM and Multi-Scale Maximum Response Filter	Pramod Kumar Soni, Navin Rajpal, Rajesh Mehta	Journal of the Indian Society of Remote Sensing	3/1/2021	https://doi.org/10.1007/s12524-021-01329-2
6	Semiautomatic Road Extraction Framework Based on Shape Features and LS-SVM from High-Resolution Images	Pramod Kumar Soni, Navin Rajpal, Rajesh Mehta	Journal of the Indian Society of Remote Sensing	2020/3	https://doi.org/10.1007/s12524-019-01077-4
7	An empirical sequence to extract fetal electrocardiogram using the Kernel and wavelet optimization	Ritu Singh, Navin Rajpal, Rajesh Mehta	Journal of Information & Optimization Sciences	1/2/2020	https://doi.org/10.1080/02522667.2020.1715562
8	Wavelet and kernel dimensional reduction on arrhythmia classification of ECG signals	Ritu Singh, Navin Rajpal, Rajesh Mehta	EAI Endorsed Transactions on Scalable Information Systems	2020	http://dx.doi.org/10.4108/eai.13-7-2018.163095
9	Wavelet-based arrhythmia detection of ECG signal and performance measurement using diverse classifiers	Ritu Singh, Navin Rajpal, Rajesh Mehta	International Journal of High-Performance Computing and Networking	3/18/2020	https://dx.doi.org/10.1504/IJHP.CN.2019.106087
10	An Improved Illumination Normalization and Robust Feature Extraction Technique for Face Recognition Under Varying Illuminations	Jyotsna Yadav, Navin Rajpal, Rajesh Mehta	Arabian Journal for Science and Engineering: 1-20. Publisher Name Springer Berlin Heidelberg	2019	https://doi.org/10.1007/s13369-019-03729-6
11	Robust image watermarking scheme in lifting wavelet domain using GA-LSVR hybridization	Rajesh Mehta, Navin Rajpal, Virendra P Vishwakarma	International Journal of Machine Learning and Cybernetics	2018	ISSN: 1868-8071 (Print) 1868-808X (Online)
12	An improved hybrid illumination normalisation and feature extraction model for face recognition	Jyotsna Yadav, Navin Rajpal, Rajesh Mehta	International Journal of Applied Pattern Recognition	2018	Print ISSN: 2049-887X Online ISSN: 2049-8888
13	A new illumination normalization Framework via homomorphic filtering and reflectance ratio in DWT domain for face recognition	Jyotsna Yadav, Navin Rajpal, Rajesh Mehta	Journal of Intelligent & Fuzzy Systems, 1-13	2017	ISSN 1064-1246 (P) ,ISSN 1875-8967 €
14	A Novel Hybrid Approach for Fast Block Based Motion Estimation.	Shaifali Madan Arora, Kavita Khanna, Navin Rajpal	International Journal of Interactive Multimedia & Artificial Intelligence	12/1/2017	
15	A robust and efficient image watermarking scheme based on Lagrangian SVR and lifting wavelet transform	Rajesh Mehta, Navin Rajpal, Virendra P Vishwakarma	International Journal of Machine Learning and Cybernetics	4/1/2017	1868-808X
16	A new fast motion estimation algorithm using adaptive size diamond pattern search with early search termination	Shaifali Madan Arora, Navin Rajpal, Ravindra Kumar Purwar	International Journal of Computational Vision and Robotics	2017	1752914X
17	Edge and fuzzy transform-based image compression algorithm: Edge fuzzy	Deepak Gambhir, Navin Rajpal	Artificial Intelligence and Computer Vision	2017	978-3-319-46245-5
18	Improved accuracy in initial search center prediction to fasten motion estimation in h. 264/AVC	S Madan Arora, Navin Rajpal, Kavita Khanna, Ravinder Purwar	IETE Journal of Research	11/1/2016	0974780X
19	Adaptive image watermarking scheme using fuzzy entropy and GA-ELM hybridization in DCT domain for copyright protection	Rajesh Mehta, Navin Rajpal, Virendra P Vishwakarma	Journal of Signal Processing Systems	2016	19398018
20	A robust image encryption algorithm resistant to attacks using DNA and chaotic logistic maps	Anchal Jain, Navin Rajpal	Multimedia Tools and Applications	2016	1573-7721
21	LWT-QR decomposition based robust and efficient image watermarking scheme using Lagrangian SVR	Rajesh Mehta, Navin Rajpal, Virendra P Vishwakarma	Multimedia Tools and Applications	2016	1573-7722
22	An image Encryption Algorithm resistant to attacks using Chaotic Maps	Anchal Jain, Navin Rajpal	International Journal of Tomography and Simulation	2016	23193336
23	Surface reconstruction using feature-based approach with RBF neural network	Navin Rajpal	International Journal of Control Theory and Applications	2016	17518652
24	Improved fuzzy transform-based image compression and fuzzy median filter based its artifact reduction: pairfuzzy	Deepak Gambhir, Navin Rajpal	International Journal of Machine Learning and Cybernetics	2015	1868-808X
25	Reconstruction of curves from point clouds using fuzzy logic and ant colony optimization	Kavita Khanna, Navin Rajpal	Neurocomputing	2015	18728286

Papers Published in Conference Proceedings (last 5 years)

Sr. No	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Name of the publisher
1.	Supervised and Unsupervised Machine Learning Techniques for Multiple Sclerosis Identification: A Performance Comparative Analysis	Advances in Intelligent Systems and Computing book series (AISC, volume 1374)	Proceedings of Second Doctoral Symposium on Computational Intelligence pp 369-381	International	2021	Print ISBN 978-981-16-3345-4	Springer, Singapore
2.	A Novel DWT and Deep Learning Based Feature Extraction Technique for Plant Disease Identification	Advances in Intelligent Systems and Computing book series (AISC, volume 1374)	Proceedings of Second Doctoral Symposium on Computational Intelligence pp 355-367	International	2021	Print ISBN 978-981-16-3345-4	Springer, Singapore
3.	Multiple Sclerosis Identification Based on Ensemble Machine Learning Technique	Available at SSRN 3734806	Proceedings of the 2nd International Conference on IoT, Social, Mobile, Analytics & Cloud in Computational Vision & Bio-Engineering (ISMAC-CVB 2020)	International	2021	DOI : http://dx.doi.org/10.2139/ssrn.3734806	Available at SSRN 3734806
4.	Black Rot Disease Detection in Grape Plant (Vitis vinifera) Using Colour Based Segmentation & Machine Learning	IEEE proceedings	2020 2nd International Conference on Advances in Computing, Communication Control and Networking (ICACCCN)	International	2021	DOI : https://doi.org/10.1109/ICACCCN51052.2020.9362812	IEEE
5.	Comparison of Texture Based Feature Extraction Techniques for Detecting Leaf Scorch in Strawberry Plant (Fragaria x Ananassa)	ICCE 2020	In: Kumar A., Mozar S. (eds) ICCE 2020. Lecture Notes in Electrical Engineering, vol 698. Springer, Singapore.	International	2021	DOI: https://doi.org/10.1007/978-981-15-7961-5_63	Springer, Singapore
6.	Black Measles Disease Identification in Grape Plant (Vitis vinifera) Using Deep Learning	IEEE proceedings	2021 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)	International	2021	DOI https://doi.org/10.1109/ICCCIS51004.2021.9397205	IEEE
7.	Dynamic ECG Classification Using Shift-Invariant DTCWT and Discriminant Analysis	ICETIT 2019	Proceedings of ICETIT 2019	International	2020	DOI https://doi.org/10.1007/978-3-030-30577-2_43	Springer, Cham
8.	A comparison of road network extraction from High Resolution Images	IEEE proceedings	2018 First International Conference on Secure Cyber Computing and Communication (ICSCCC) IEEE	International	2018	18637321	IEEE
9.	Abnormality detection in ECG using hybrid feature extraction approach	IEEE proceedings	2018 First International Conference on Secure Cyber Computing and Communication (ICSCCC) IEEE	International	2018	18637376	IEEE
10	Automatic Road Extraction from Semi Urban Remote Sensing Images	IEEE proceedings	International Conference on Next Generation Computing Technologies, Springer, Singapore	International	2018	978-981-15-1717-4	Springer, Singapore
11	Wavelet and KICA based ECG beat classification for cardiac health care	IEEE proceedings	4TH I2CT IEEE CONFERENCE on convergence in Technology 2018, Mangalore	International	2018	https://doi.org/10.1109/I2CT42659.2018.9057837	IEEE
10	An Expression invariant Face Recognition based on Proximal Support Vector Machine	IEEE proceedings	4TH I2CT IEEE CONFERENCE on convergence in Technology 2018, Mangalore	International	2018	https://doi.org/10.1109/I2CT42659.2018.9058243	IEEE
12	Efficient wavelet families for ECG classification using neural classifiers	Procedia Computer Science (Elsevier)	International Conference on Computational Intelligence and Data Science (ICIDS 2018)	International	2018	ISSN: 1877-0509	Elsevier
13	Edge and fuzzy transform-based image compression algorithm: Edgefuzzy			International	2017	978-3-319-46245-5	Springer International Publishing
14	Face recognition using Symlet, PCA and cosine angle distance measure	2016 Ninth International Conference on Contemporary Computing (IC3)	2016 Ninth International Conference on Contemporary Computing (IC3)	International	2016	978-1-5090-3251-8	IEEE
15	A novel filtering mechanism using cascading filters on 3D images	IEEE proceedings	International Conference on Computing for Sustainable Global Development (INDIACom)	International	2016	978-9-3805-4421-2	IEEE

Books Authored / Book Volume Chapters				
No. of Conferences	National	Attended		Organized
	International	01 **		
Research Guidance	Awarded	MCA	M.Tech.	Doctorate
		40+	50+	13
	Undergoing	4	4	04
Research Projects	Completed			
	Undergoing			
Awards & Distinctions				
Administrative Assignments Handled	Worked as Incharge CSE Dept. at CRSCE Murthal from March 1996 to Feb. 1998. Worked as Incharge Computer Centre at GGSIPU from Aug. 2000 to July 2004. Worked as HoD CSE Dept. at IGIT GGSIPU from Jan 2005 to Dec. 2007. Worked as Dean USICT from Oct. 2011 to Sept. 2014.			
Association with Professional Bodies	Life Member of ISTE and CSI			
Any other Achievements				

** "Wavelet and KICA based ECG beat classification for cardiac health care", 4TH I2CT IEEE CONFERENCE on convergence in Technology 2018, Mangalore.