महात्मा ज्योतिबा फुले
रूहेलखण्ड विश्वविद्यालय, बरेली

Faculty Profile on University Website

www.mjpru.ac.in

Title	**Dr.**	**First Name**	**Brajesh**	**Last Name**	**Kumar**	**Photograph**
Designation		**Associate Professor**				
Department		**Computer Science & Information Technology**				
Address	**Campus**	**First Floor, Central Computer Center**				
	Residence	**5-A, Umang Part 1, Mahanagar Colony, Bareilly-243006**				
Mobile No.		**8279722771**				
Email ID		Personal	**sainibrajesh@gmail.com**			
		University Domain	**bkumar@mjpru.ac.in**			
Professional Networking ID, i.e. Linkedin, Twitter etc.		**Twitter: bksaini** **LinkedIn: brajesh-kumar-40944235** **Researchgate: Brajesh-Kumar-14**				

Educational Qualifications (Graduation Onwards)

Course/Degree	Institution	Year	Details/Thesis Topic/Subjects
BSc	**CCS University, Meerut**	**1996**	**Physics/Chemistry/Maths**
MSc	**CCS University, Meerut**	**1998**	**Physics/Electronics**
MTech	**Indian Institute of Technology Roorkee, Roorkee**	**2001**	**Computer Science & Tech.**
PhD	**Indian Institute of Technology Kanpur, Kanpur**	**2017**	**Spectral-spatial classification of hyperspectral imagery**

Career Profile

Organization / Institution	Designation	Duration	Nature of Duties
MJP Rohilkhand University, Bareilly	**Lecturer**	**09-10-2002 to 25-08-2008**	**Academic**
MJP Rohilkhand University, Bareilly	**Reader**	**26-10-2008 to 25-10-2011**	**Academic/Administrative**
MJP Rohilkhand University, Bareilly	**Associate Professor**	**26-10-2011 onwards**	**Academic/Administrative**

Research Interests / Specialization

Image Processing, Remote Sensing, Natural Language Processing, Machine Learning, Parallel Computing

Research Experience in Years: 20

No of Research Scholars Successfully Guided

Name of Programme	Awarded	Under Supervision
Ph.D.	**01**	**05**
M.Phil.	**0**	**0**
Dissertation (MTech)	**03**	**0**

Researcher / Expert ID	**Scopus**	**Orchid**	**Publons**	**Vidwan**	**Google Scholar**
	56637603700	**0000-0001-8100-7287**	**C-6216-2018**	**154275**	**ZrdBaYIAAAAJ&hl**

Teaching Experience (Subjects/Courses Taught)

BTech: Soft Computing, Image Processing, Advanced Computer Architecture, Principles of Programming Language, Remote Sensing, Data Structure, Compiler Design, Theory of Computation

MCA: Image Processing, Advanced Computer Architecture

PhD: Matlab Programming, Image Processing, Parallel Processing

Honours / Awards & Fellowship FOR OUTSTANDING WORK			
Name of Award/ Fellowship	**Awarded By**		
	Name of Governmental Agency	**Name of Government Supported Organization/ Department**	**Name of International Recognized Body**
MHRD (GATE) Fellowship for MTech	**MHRD**	**IIT Roorkee**	**-**
QIP Fellowship for PhD	**MHRD**	**AICTE**	**-**
International Travel Grant	**-**	**IIT Kanpur**	**-**
International Travel Grant	**MHRD**	**TEQIP-II**	**World Bank**

Publications /Academic Activities (Numbers Only)

Books & Monographs (Single Author)	**2**	Research Papers Published in International Journals	**20**	Papers Presented in Seminars/ Conferences	**3**	Seminars/ Conferences Organized	**7**	Research Projects (Completed)	**2**
Books (Co-authored)	**2**	Research Papers Published in Other Journals		Seminar/ Conferences Attended	**3**	Workshops Organized	**1**	Research Projects (Ongoing)	**4**
Books (Edited)	**2**	Articles Published in Popular Fora, e.g., Websites, Blogs, Newspapers, Magazines etc.		Sessions Chaired in Seminars/ Conferences	**2**	Membership of Academic/ Professional Bodies	**2**	Foreign Countries Visited for Academic Assignments	**2**
Chapters in Edited Books				Resource Lectures Delivered	**4**				

Details of Publications /Academic Activities (2010 Onwards)

(a) Authored Books/ Monographs

Name of Book	Year of Publication	Publisher	ISBN No
SLM on Python	2021	UPRT Open University, Prayagraj	Awaited
SLM on Computer Architecture	2022	UPRT Open University, Prayagraj	Awaited

(b) Edited Books

Year of Publication	Title	Publisher	ISBN	DOI No.	Citations
2019	SLM on Multimedia	UPRT Open University, Prayagraj	978-93-83328-17-8		
2021	SLM on Windows Programming	UPRT Open University, Prayagraj	Awaited		

(c) Papers Published in UGC Care Listed /Indexed/ Peer Reviewed Journals

Year of Publication	Title	Name of Journal	ISSN No	Citations	Impact Factor
2023	Detection of Apple Plant Diseases Using Leaf Images Through Convolutional Neural Network	IEEE Access	2169-3536	9	3.37
2023	A New Design of Occlusion-Invariant Face Recognition Using Optimal Pattern Extraction and CNN with GRU-Based Architecture	International Journal of Image and Graphics	1793-6756	-	1.6
2022	Comparison of Various Deep Convolutional Neural Network Models to Discriminate Apple Leaf Diseases Using	Journal of Plant Diseases and Protection	1861-3829	8	2.0

	Transfer Learning				
2022	**Fusion of Hyperspectral and LiDAR Data Using Sparse Stacked Autoencoder for Land Cover Classification with 3D-2D Convolutional Neural Network**	**Journal of Applied Remote Sensing**	**1931-3195**	**6**	**1.70**
2022	**A comprehensive study of feature extraction techniques for plant leaf disease detection**	**Multimedia Tools and Applications**	**1380-7501**	**24**	**3.60**
2021	**Hyperspectral image classification using deep convolutional neural network and stochastic relaxation labelling**	**Journal of Applied Remote Sensing**	**1931-3195**	**7**	**1.70**
2020	**Plant disease detection using computational intelligence and image processing**	**Journal of Plant Diseases and Protection**	**1861-3829**	**138**	**2.0**
2020	**Hyperspectral image classification using three-dimensional geometric moments**	**IET Image Processing**	**1350-245X**	**5**	**2.2**
2020	**Feature extraction for hyperspectral image classification: a review**	**International Journal of Remote Sensing**	**0143-1161**	**73**	**3.4**
2017	**Hyperspectral Image**	**International Journal of**	**0143-1161**	**24**	**3.4**

	Classification Based on Morphological Profiles and Decision Fusion	**Remote Sensing**			
2017	**Spectral Contextual Classification of Hyperspectral Imagery with Probabilistic Relaxation Labelling**	**IEEE Transactions on Cybernetics**	**2168-2267**	**17**	**11.80**
2016	**Parallel probabilistic relaxation labelling based on Markov random fields for spectral-spatial hyperspectral image classification**	**International Journal of Remote Sensing**	**0143-1161**	**3**	**3.4**
2016	**Spectral-spatial classification of hyperspectral imagery based on moment invariants**	**IEEE Journal on Selected Topics in Applied Earth Observations and Remote Sensing**	**1939-1404**	**31**	**5.5**
2011	**Performance evaluation of routing protocols in vehicular ad hoc networks**	**International Journal of Internet Protocol Technology**	**1743-8209**	**17**	**0.3**
2011	**Performance Comparison of Topology and Position Based Routing Protocols in Vehicular Network Environments**	**International Journal of Wireless and Mobile Networks**	**0975-3834**	**37**	**-**
2010	**A study of Location Aided**	**International Journal of**	**0975-5292**	**29**	**-**

	Routing (LAR) Protocol for Vehicular Ad Hoc Networks in Highway Scenario	**Engineering and Information Technology**			

d) Chapter/Paper Published in Edited Books

Publication		Title of the Book	Title of the Chapter	Name & Address of Publisher	Year	ISBN	DOI	Citation Google/ web of science
National	International							

(e) Invited as Resource Lectures Person/Examiner/Expert

Resource person	**Detail of Event**	**Title of Lecture**	**Date**	**Institution**
Dr. Brajesh Kumar	**FDP on MATLAB**	**Neural Networks**	**2019**	**SRMS CETR, Bareilly**
Dr. Brajesh Kumar	**FDP on MATLAB Tools and Its Applications**	**Image Processing Using Matlab**	**27-08-2018 (Morning Session)**	**SRMS CET, Bareilly**
Dr. Brajesh Kumar	**FDP on MATLAB Tools and Its Applications**	**Image Processing Using Matlab**	**27-08-2018 (Evening Session)**	**SRMS CET, Bareilly**
Dr. Brajesh Kumar	**IEEE Int. Conference on Internet of Things: Smart Innovation & Usage (IOT-SIU), 2018.**	**Parallel Processing on MultiCore Processors and GPUs**	**24-02-2018**	**BIAS Bhimtal, Uttarakhand**

(f) Seminars/Conferences/Workshops Organized

1. Symposium on Wavelet and its Applications in Engineering Problems, 2015.
2. IEEE Int. Symposium on Internet of Things: Smart Innovation & Usage (IOT-SIU), 2016.
3. IEEE Int. Conference on Advances in Computing, Communication, and Automation, 2016.
4. IEEE Int. Conference on Internet of Things: Smart Innovation & Usage (IOT-SIU), 2017.
5. Workshop on Data Analytics Using Python and R, 2020.

(g) Projects (With Title, Year, Grants, Funding Agency and Collaborations)					
Year	Name of Project	Funding Agency	Amount	Duration	
				From	Till
2023	HyImC: A python-based software package for hyperspectral image classification using deep learning frameworks	ISRO	29.91 Lakh	2023	2026
2022	ACAI	UP Government	21.50 Lakh	2022	2025
2022	Smart Organic Agriculture (SOA): Modeling of Artificial Intelligence based IoT framework for Crop Recommendation & Supply Chain Management using Blockchain	UP CST, Lucknow	9 Lakh	2023	2026
2022	Crop Health Monitoring Using Machine Learning	UP Government	6 Lakh	2022	2025
2021	Plant Disease Identification Using Computer Vision Techniques	UP Government	3 Lakh	2021	2024
2018	Feature extraction for hyperspectral image classification	TEQIP	2 Lakh	2018	2020
2018	Integration	ISRO	22.35 Lakh	2018	2020

	of Spectral and Spatial Information for Hyperspectral Image Classification				

(h) Administrative Positions/Assignments Held

Post	Organization	Duration	
		From	To
Coordinator, ACAI	MJPRU, Bareilly	2020	Continue
Associate Director	MJPRU, Bareilly	2020	Continue
NSS Program Officer	MJPRU, Bareilly	15-10-2020	Continue
Deputy Nodal Officer	MJPRU, Bareilly	2022	Continue
HOD	Department of CSIT, MJPRU, Bareilly	30-08-2017	29-08-2020
HOD	Department of CSIT, MJPRU, Bareilly	30-07-2011	29-07-2012
BOS Convenor	CSIT, MJPRU, Bareilly	2010	2012

(i) Seminar/Conference Presentations

1. Brajesh Kumar, and Onkar Dikshit, "Parallel implementation of morphological profile based spectral-spatial classification scheme for hyperspectral imagery," The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences (XXIII ISPRS Congress, Prague, Czech Republic), ISPRS, vol. XLI-B7, pp. 263-267, 2016.

2. Brajesh Kumar, and Onkar Dikshit, "Integrating spectral and texture features for urban land cover classification with hyperspectral data," Joint Urban Remote Sensing Event (JURSE), Lausanne, Switzerland, IEEE, pp. 1-4, 2015.

3. Brajesh Kumar, and Onkar Dikshit, "Texture based hyperspectral image classification," The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences (ISPRS Technical Commission VIII Symposium, Hyderabad, India), vol. XL-8, pp. 793-798, 2014.

(j) Memberships of Academic/Professional Bodies

Senior Member, IEEE and Life Member Indian Science Congress

(k) Participation in Community Service / Exchange Programme/Consulting Activity

1. Program Officer, National Service Scheme
2. Advisory boards of various conferences
3. Session Chair of various conferences

4. Study material preparation and editing for UPRTOU, Prayagraj			
(l) International Academic Exposure			
2016	**Charles University, Prague**	**Prague, Czech Republic**	**2016**
2015	**EPFL**	**Lausanne, Switzerland**	**2015**
(m) Any Other Details			

[Brajesh Kumar]