



Faculty Details Proforma



Title	Dr.	First Name	Sandeep	Last Name	Kumar	Photograph
Designation		Assistant Professor				
Address		Greater Noida				
Date of Birth						
Phone No Office						
Mobile						
Email		sandeep_kumar@sbs.du.ac.in				
Web-Page		https://sites.google.com/sbs.du.ac.in/sandeepkumar/				
Educational Qualifications						
Degree		Institution			Year	
B.A. Hons. (Maths)		Rajdhani College (University of Delhi)			2006	
M.Sc, Mathematics		IIT Delhi			2008	
M.Tech Computer Applications		IIT, Delhi			2010	
Ph.D.		IIIT Delhi			2022	
Career Profile						
Assistant Professor, Shaheed Bhagat Singh College (University of Delhi) – June 2015 Till now						
Assistant Professor (Adhoc), University of Delhi – Jan 2012 to June 2015						
Software Associate, Strand Life Science, Bangalore – July 2010 to Jan 2012						
Areas of Interest / Specialization						
Machine Learning, Cryptography						
Papers Taught						
Machine Learning, Cryptography and Network Security, Number Theory, Discrete Mathematics, C Language, C++ Language, Computer Algebra System, Latex and HTML, Python, Numerical Methods, Real Analysis, Group Theory, Ring Theory, Linear Algebra, Differential Equations, Probability and Statistics, Complex Analysis, Calculus, Mathematical Python						
Research Guidance						
PhD scholars						
Under Supervision		Submitted			Awarded	
M.Phil Scholars						

Under Supervision		Submitted		Awarded			
M.A. Dissertations							
Under Supervision			Awarded				
Publications Profile							
Books							
Title	ISBN/Publisher/Link	Indexed Scopus etc if any	Year				
Latex and HTML	978-81-928184-6-7 Vardhman Publications	-	2016				
Graph Theory	978-81-928184-4-3 Vardhman Publications	-	2015				
Practical using Mathematica for Calculus-I	978-81-928184-3-6 Vardhman Publications	-	2014				
Practical using Mathematica for Numerical Methods and Analysis - II	978-81-928184-2-9 Vardhman Publications	-	2014				
Research Publications							
Article Name	Publication Type (UGC Care/	Journal Name	ISSN No	Volume	Year	URL	DOI

	Scopus/ Web of science etc)						
Forecasting Formation of a Tropical Cyclone Using Reanalysis Data	Scopus/ SCIE	Advances in Artificial Intelligence and Machine Learning	2582- 9793	4	2024	https://www.oajaiml.com/uploads/archivepdf/905443158.pdf	https://doi.org/10.54364/AIML.2024.43158
Will a tropical cyclone make landfall?	Scopus	<i>Neural Computing and Applications</i>	0941- 0643	35	2022	https://link.springer.com/article/10.1007/s00521-022-07996-7	https://doi.org/10.1007/s00521-022-07996-7
TanhSoft— dynamic trainable activation functions for faster learning and better performance	Scopus	<i>IEEE Access</i>	2169- 3536	9	2021	https://ieeexplore.ieee.org/document/9514829	10.1109/ACCESS.2021.3105355
Publications other than journal articles							
Title of Publication	Type of Publicat ion	Publisher	Role in Public ation	ISB N Num ber	Year	URL	Level
Prediction of	Confere	AAAI	First	-	2021	https://cdn.	International

landfall intensity, location, and time of a tropical cyclone	Conference Paper	Conference on Artificial Intelligence	Author			aaai.org/ojs/17741/17741-13-21235-1-2-20210518.pdf	Conference. Ranked – 33 (in https://scholar.google.com/citations?view_op=top_venues)
Predicting landfall's location and time of a tropical cyclone using reanalysis data	Conference Paper	Artificial Neural Networks and Machine Learning Conference	Co-author	978-3-030-86380-7	2021	https://doi.org/10.1007/978-3-030-86380-7_30	International Conference.
Track prediction of tropical cyclones using long short-term memory network	Conference Paper	IEEE 11th Annual Computing and Communication Workshop and Conference	First Author	978-1-6654-1490-6	2021	https://ieeexplore.ieee.org/document/9376027	International Conference
Smooth maximum unit: Smooth activation function for deep networks using smoothing maximum	Conference Paper	<i>IEEE/CVF Conference on Computer Vision and Pattern Recognition Conference</i>	Co-author	978-1-6654-6946-3	2022	https://ieeexplore.ieee.org/document/9878772	International Conference. Ranked – 04 (in https://scholar.google.com/citations?view_op=top_venues)

technique.							ues)
ErfAct and Pserf: Non-monotonic Smooth Trainable Activation Functions	Confere nce Paper	AAAI Conference on Artificial Intelligence	Co-author	-	2022	10.1609/aaai.v36i6.20557	International Conference. Ranked – 33 (in https://scholar.google.com/citations?view_op=top_venues)
Revocable identity-based encryption from codes with rank metric.	Confere nce Paper	<i>Cryptographer s' Track at the RSA Conference</i>	Co-author	978-3-319-76952-3	2018	https://doi.org/10.1007/978-3-319-76953-0_23	International Conference
Eis-efficient and trainable activation functions for better accuracy and performance.	Confere nce paper	Artificial Neural Networks and Machine Learning Conference	Co-author	978-3-030-86380-7	2021	https://doi.org/10.1007/978-3-030-86340-1_21	International Conference.

Conference/ workshop Organized

- Member of organization committee - National Workshop on Latex and HTML, 2016.

Awards and Distinctions

- 21 All India Rank in JAM (Joint admission test for admission in M.Sc at IIT's)
- 111 All India Rank in GATE.

Association with Professional Bodies

Life time member of Cryptology Research Society of India (CRSI).

Other Activities

Administrative Activities:

- Convenor, Department Alumni Committee, 2025-26
- Member Research Cell, 2023.
- Convenor Admission Committee - OBC, 2022.
- Convenor Admission Committee - OBC, 2021.
- Teacher-Incharge of the department, 2020-21.
- Convenor NSS committee of staff council, 2021-23.
- Convener of Computerization committee of staff council for the sessions 2016-17 and 2017-18.
- Member of Attendance committee of staff council for the session 2017-18.
- Member of Website committee of staff council for the session 2016-17 and 2017 -18.
- Member of NSS committee of staff council for the session 2015- 16, 2017-18 and 2018-19.
- Member of organizing committee of International Conference on Applicable Analysis, February 08-11, 2017.
- Member of organizing committee of National Workshop on Latex and Website Designing, August 11-12, 2016.
- Member of Departmental Admission committee for the session 2015-16, 2016-17 and 2017-18.
- Convener of Departmental Computerization committee for the session 2016-17.
- Member of Departmental NAAC committee during 2016-17.

Invited Talks/Lectures

- Two lectures at National Workshop on Machine Learning and Applications: Hands on Python conducted by Lakshmibai College, University of Delhi, 19-21 April, 2026
- Two lectures on Applications of Mathematica at one day workshop conducted by MMH College, Ghaziabad, September 20, 2018.
- Invited talk on Cryptography: A career option for Mathematics students conducted by Satyawati College, University of Delhi, August 02, 2018.
- Three lectures at the Faculty Development Programme, Mathematica: A tool fo computational Analysis conducted by Ramjas College, University of Delhi, March 10-11, 2018.
- Three Lectures at National Workshop on Latex and Website Designing conducted by Department of Mathematics, Shaheed Bhagat Singh College, University of Delhi, August 11-12, 2016.
- Talk on Cryptography: A Career option for Mathematics Students at the seminar Career with Mathematics conducted by the Department of Mathematics, Shaheed Bhagat Singh College, University of Delhi, November 10, 2017.

