Maharaja Surajmal Institute
Affiliated to GGSIP University & NAAC 'A' grade accredited.
Rated as Category 'A+' by SFRC & 'A' by JAC Govt. of NCT of Delhi
Recognised U/s 2(f) of UGC Act

Faculty Profile

1. **Name of Faculty**: Dr. Kavita Pabreja

2. **Date of Joining:**   August 03, 2000

3. **Present Position:** Associate Professor

4. **Department:** Computer Applications

5. **Email ID:** kavitapabreja@msijanakpuri.com

6. **Profile:**

Your profile (glorify your work)

- **Ph.D. (Comp. Sc.)** from **BITS, Pilani** in the research field of **Data Mining for weather forecasting, M.S. (Software systems)** from **BITS Pilani, B.E.(AMIETE)** from **IETE, New Delhi,** awarded **Merit Certificate** from Govt. of India for outstanding performance (**84.8% marks)** in D.S.S.E., CBSE.

- **21+ Years of Educational Experience** as Faculty Member (presently Associate Professor since Feb. 2013, and as Assistant Professor prior to that) and Head of Department (year 2000-2005 and 2013-2017) for the BCA/ BIS(Hons.) Students.

- **5+ Years of Industry Experience** in domain of Computer Support, Electronics Design & Business Development.

- Awarded the most prestigious **International Educator Award 2020-21**, instituted by the International Institute of organized Research (I2OR) which is a registered MSME with the Ministry of Micro, Small and Medium Enterprises, Government of India.

- Awarded Certificate of recognition, for being **one of the Top 50 Tech Savvy Academicians in Higher Education Across India for the year 2019**, by The Academic Council of uLektz. uLektz offers One-stop Solution for all the needs of Higher Education and their academic council includes distinguished educators and industry experts from various domains.

- **Best Research Paper Award** from **EMC data storage systems and Amity** for All India Competition in Data Research; **Best Research Paper award** for developing An Android Application to Illustrate the Perspective of Community on Blood Donation at National Conference organized by IITM.

- Worked on **Data analytics using R and Python, Data mining tools** like WEKA, Matlab, Microsoft Business Development Studio, Hands on experience of application of **Soft computing techniques** like Artificial neural networks, Adaptive neuro fuzzy inference system, Data mining techniques like clustering, classification, for real life case studies in the field of meteorology, education, world development indicators, etc.

- Educational Experience of Teaching many computer science subjects for many years: - Data warehousing and Data mining, Object Oriented Programming using C++, Java programming, Database Management Systems, Digital Electronics, Computer Architecture, Systems Programming, Data structures, Knowledge Management in

new economy, Mobile Computing, Design and analysis of Algorithms, Computer Networks, Web based programming using PHP, Software Engineering, Computer Graphics, C Programming, etc.

- **Books: 05 Published**
    - Pabreja K. **Application of Artificial Intelligence Tools -Impact on Weather Prediction**, ISBN: 978-3-639-51010-2, December 2012, Editor: Emily Smith, Scholars' Press, AV Akademikerverlag GmbH & Co. KG, **Germany**.
    - Pabreja K., Narwal N., **Object-Oriented Programming Using C++**, ISBN: 978-93-89447-46-0, Copyright 2019, I.K. International Publishers. New Delhi, India, distributed by **Wiley Publishers.**
    - Narwal N., Pabreja K., **Learning Visual Basic.Net Programming (Front End Design Tool)**, August 2017, ISBN978-93-86184-55-9, Galgotia Publishing Company, New Delhi, **India**
    - Narwal N., Pabreja K., **Front End Design Tool VB.NET**, 2019(First Edition), ISBN: 978-93-87684-24-9, JSR Publishing House, New Delhi, India
    - Narwal N., Pabreja K., **Front End Design Tool VB.NET**, 2020 (Second edition), ISBN: 978-93-87684-59-1, JSR Publishing House, New Delhi, India

- **Research publications: total 66**
    1. **Research papers in journals: 25**
    2. **Research papers in conference proceedings: 32**
    3. **Books and Journals Published/Edited: 6**
    4. **Chapter in book: 2**
    5. **Book review: 1**

- Courses done under **MOOCs**
    1. Successfully completed **NPTEL online certification** (funded by Ministry of HRD, Govt. of India) a 8week **AICTE approved Faculty development programme** on **Introduction to Machine Learning**, with 69% marks, during July-Sept. 2021.
    2. Successfully completed **NPTEL online certification** (funded by Ministry of HRD, Govt. of India) an 8week course on Data mining during Jan-Apr 2020.
    3. Successfully completed **NPTEL online certification** (funded by Ministry of HRD, Govt. of India) a 4week **AICTE approved Faculty development programme** on **Python for Data Science**, with 86% marks, (with top 2% topper category) during Aug-Sept. 2019.
    4. Successfully completed a 4 weeks course on "**R Programming**" with **96.3% score**, on June 30, 2016. It is an online course authorized by **John Hopkins University** and offered through coursera.

- **Certification: -** Successfully completed the requirements of **EMC, Academic Associate- Data Science and Big Data Analytics** on June 16, 2017. The online exam was conducted ICT Academy on behalf of EMC Education services, during one-week Faculty Development Program on **Data Science and Big Data Analytics**, from June 12, 2017 to June 16, 2017 at Guru Gobind Singh Indraprastha University.

- Conducted 12 Hands-on sessions on **R programming / Machine learning using R** during **Faculty Development Programs / workshops at National level / short term training programme sponsored by AICTE.**

- Delivered invited talk and keynote address at International / National Conferences.

- Organized Various Conferences, Faculty Development Programmes, Seminars.

- Attended more than 40 seminars/conferences/workshops/Faculty Development Programmes in the field of

Computer Science & Data Mining Technologies

- Member of Technical Review Committee for many International journals and conferences
- Presently Convener of MSI-Results committee, member of library committee and lab committee
- In past, convener of institute's Publication committee, IT fest, website development committee, Lab committee.

7. Educational Qualification:

S No.	Degree (graduation onwards)	College and/ or University	Year
1.	Ph.D.	Birla Institute of Technology and Science, Pilani	2013
2.	M.S.	Birla Institute of Technology and Science, Pilani	2000
3	AMIETE	Institution of Electronics and Telecommunication Engineers	1995
4.	Engineering diploma in Digital Electronics & Microprocessor design	Kasturba Polytechnic for Women, New Delhi (Board of Technical Education)	1991
5.	D.S.S.E	Central Board of Secondary Education	1988

8. Employment Record (Latest First)

S No.	From [Month & Year]	To [Month & Year]	Employer Name	Positions Held	No of Years
1.	1st Feb. 2013	Till date	Maharaja Surajmal Institute	Associate Professor	8 years 9 months
2.	3rd Aug. 2000	31st Jan. 2013	Maharaja Surajmal Institute	Assistant Professor / Sr. Lecturer	12 years 6 months
3.	20th May 1997	15th July 1998	Rockwell International Overseas Corporation, Regional Office – South Asia (A USA multinational, Fortune 500 company)	Business Development Engineer	1 year 2 months
4.	1st Apr. 1996	16th May 1997	Parekh Micro Electronics (India) Ltd.	Senior Engineer	1 year
5.	3rd Nov. 1995	24th Mar. 1996	Media Video Ltd.	Assistant Manager (Imports)	6 months
6.	5th Jan. 1994	27th June 1994	HCL Hewlett Packard Ltd.	Associate Customer Engineer	6 months
7.	8th July 1991	4th Dec. 1993	Shyam Telecom Ltd.	Assistant Engineer	2 years 6 months

9. Research Papers in National and International Journals

S No.	Title of Paper (Vol and Page No.)	Name of Journal	National/ International	SCI/ SCIE/ SSCI/ ESCI/ SCOPUS/ UGC Care	Year of Publication	Impact Factor	No. of Citations
1	Artificial Neural Network for Markov Chaining of Rainfall Over India (Volume 7, Issue 3, pp. 71-84)	International Journal of Business Analytics (IJBAN), IGI Global publishers	International	ESCI, Scopus, UGC	2020	1.03 h-index: 7 Ranking: 16385	--

2	Sentiment Analysis on GST Tweets (Volume 9, No. 20, pp. 89-92)	International Journal of Advanced Research in Computer Science	International	UGC	2018	--	2
3	A Case Study on Delhi MCD Election Prediction using social media analytics (Vol. 9, No.1, pp. 842-846)	International Journal of Advanced Research in Computer Science	International	UGC	2018	--	--
4	A data analytics approach for blood donations (Vol.6, Issue 25, pp07-13)	Jamshedpur Research Review	National	UGC	2018	--	--
5	Technological Implementations in Public Transit Systems Worldwide (Volume 4, Issue 2, pp.151-155)	International Journal of Scientific Research in Science and Technology	International	UGC	2018	5.01	--
6	Data Mining Techniques for Interpretation of Weather Forecast (Volume 44(2), pp. 5-14)	Vayumandal, the official bulletin of the Indian Meteorological Society, Regd No. 21693/71	National	--	2018	--	-
7	Social Media Analytics (Volume No. 42, Issue No. 5&6, pp.10-13)	CSI Communications	National	--	2018	--	1
8	Prediction of Gross Domestic Product for South Asian Countries (Vol-01: Issue:01, pp.1-4)	Parichay: Maharaja Surajmal Institute Journal of Applied Research	National	--	2018	--	--
9	Comparison of Different Classification Techniques for Educational Data (Volume	International Journal of Information Systems in the Service Sector	International	ESCI, Web of Science, Scopus, UGC	2017	0.6 h-index: 10 Ranking: 14898	3

	9: Issue 1, pp. 54-67)	(IJISSS), IGI Global publishers					
10	Blood Mate – An Android Application to Illustrate the Perspective of Community on Blood Donation (Vol.3, pp22-26)	IITM journal of Information Technology	National	--	2017	--	--
11	GST sentiment analysis using twitter data (Vol.3, Issue 7, pp. 660-662)	International Journal of Applied Research	International	UGC	2017	8.4	8
12	Blood donation as community welfare – An investigation of social norms (Volume: 3, Issue 3, pp 550-553)	International journal of applied research	International	UGC	2017	8.4	--
13	Clustering technique for Interpretation of Cloudburst over Uttarakhand (, Vol. 67, No.3, pp.669-676.)	Mausam, Journal of Meteorology, Hydrology and Geophysics	National	SCIE, Scopus, UGC	2016	0.28 h-index: 9 Ranking: 14501	--
14	World development indicators analytics for South Asian association for regional Cooperation countries (Vol.12, No.2, pp. 30-43)	South East Asian Journal of Mathematics and Mathematical Sciences	International	UGC	2016	--	--
15	Big data management through tree of life approach, (Vol. 5, issue 1, pp. 14-20)	Journal of engineering, management and pharmaceutical sciences	National	--	2015	--	--
16	Prediction of Life Expectancy at Birth for High Income Group Countries (, Vol.5, No.1,	GAMS Journal of Mathematics and Mathematical Biosciences	National	--	2015	--	--

	pp.32-44.)	(GAMSJMM B)					
17	Data Mining Based on Neural Networks for Education Data Forecasting (Volume-03, Issue-01, pp. 33-38)	International Journal of Computer Sciences and Engineering	International	UGC	2015	3.022	--
18	.Multi-dimensional data model of Biological datasets for Analysis and Prediction of Cancer (Vol.4, No.1, pp.24-39)	GAMS Journal of Mathematics and Mathematic al Biosciences (GAMSJMM B	National	--	2013	--	--
19	Verification of k-means clustering technique to interpret Cloudburst over Leh (Vol. 3, 2013, pp. 63-73.)	Journal of engineering, managemen t and pharmaceuti cal sciences	National	--	2013	--	--
20	A tree of life approach for multidimension al data (Vol. 6, No. 3, 2013, pp.181-186)	International Journal of Computer Trends and Technology,	International	UGC	2013	2.01	--
21	A data warehousing and data mining approach for analysis and forecast of cloudburst events using OLAP-based data hypercube (Volume 4, No.1 pp. 57 – 82)	International Journal of Data Analysis Techniques and Strategies, Inderscience Publishers	International	Scopus, UGC	2012	0.74 h-index: 13 Ranking: 14745	14
22	Clustering technique for Interpretation of Cloudburst over Leh (Vol. No. 1, No. 2, pp. 67-72)	CSI Journal of Computing	National	UGC	2012	--	2
23	Clustering	International Journal of	International	--	2012	2.28	15

	technique to interpret Numerical Weather Prediction output products for forecast of Cloudburst (Vol. 3 (1), pp.2996 – 2999)	Computer Science and Information Technologies					
24	An Adaptive Neuro-Fuzzy Inference System based on Vorticity and Divergence for Rainfall forecasting (Vol. 2, No. 12, pp.45-52)	International Journal of Computer Science and Information Security	International	Web of Science, Scopus	2011	0.702	2
25	Pattern data warehouse for analysis of cloudburst events using OLAP-based data hypercube for storage of Numerical Weather Prediction Model outputs (Vol 6, pp. 511-516)	International Journal of Computational Intelligence Research	International	--	2010	--	--

10. Research Papers presented / Published as full paper in Conferences/ Seminars:

S No.	Title of Paper	Name of Conferences/ Seminars	National/ International	Name of Host Institution	Year
1	PingMe- a mobile App with a Difference	Emerging Trends in Big Data, IOT and Cyber Security	National	Maharaja Surajmal Institute, New Delhi	2020
2	Stress Prediction Model using Machine Learning	Artificial Intelligence and Applications **(Scopus indexed)**	International	Maharaja Surajmal Institute of Technology, New Delhi	2020
3	Sentiment Analysis and Prediction of election results 2018	Social Networking and Computational Intelligence (SCI-2K19) **(Scopus indexed)** Proceedings published as **Springer** book series on Lecture notes in Networks and Systems	International	Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, M.P.	2019
4	A Study of Product	Quality Assurance in Higher Education: Practices and	National	Maharaja Surajmal Institute, New Delhi	2019

	Sentiment Analysis based on Customer and Critics Comments	Issues, Sponsored by National Assessment and Accreditation Council			
5	Student Dashboard	India's Yes to Mega Reforms: Issues, Challenges and Implications (Future of Work & 4th Industrial Revolution)	National	Maharaja Surajmal Institute, New Delhi	2019
6	Anticipation of Gross Domestic Product Using World Development Indicators	CSI-2015, 50th Golden Jubilee Annual Convention on "Digital Life". Proceedings published by **Springer Nature** Singapore Pte Ltd. (**Scopus indexed**)	International	Bharati Vidyapeeth's Institute ofComputers Applications and Management (BVICAM), New Delhi	2018
7	Maze solving robot (Awarded Best Paper of the session)	Paradigm shift from developing to developed India through digitalization	National	Maharaja Surajmal Institute	2017
8	Digital Marketing – an insight	Paradigm shift from developing to developed India through digitalization	National	Maharaja Surajmal Institute, New Delhi	2017
9	Security issues and their solutions in cloud computing	Paradigm shift from developing to developed India through digitalization	National	Maharaja Surajmal Institute, New Delhi	2017
10	A survey on the development of a web portal for the IT resource management of an organization	Paradigm shift from developing to developed India through digitalization	National	Maharaja Surajmal Institute, New Delhi	2017
11	A study on traditional web development (Awarded Best Paper of the session)	Paradigm shift from developing to developed India through digitalization	National	Maharaja Surajmal Institute, New Delhi	2017
12	Election prediction model using social media input	Eleventh National Symposium of Gwalior Academy of Mathematical Sciences (GAMS) on Big Data Analytics	National	Mohyal Educational & Research Institute of Technology, New Delhi	2017
13	Blood Mate – An Android Application for blood donors and receptors	Information, Communication And Computing Technology, sponsored by Springer, Computer Society of India	International	Jagan Institute of Management Studies (JIMS), Rohini, New Delhi	2017
14	Blood Mate – An Android Application to Illustrate the Perspective of Community on Blood Donation (Best Paper award)	Innovative Research in Computer Science and Information Technology	National	Institute of Innovation in Technology and Management, New Delhi	2017

15	Review of Data Mining Tools	Innovations in IT, Management & Education – Digital India Initiative	National	Maharaja Surajmal Institute, New Delhi	2015
16	Model Output Statistics to Data Mining Tools for Weather Forecast – a review"	Innovative Trends in Information Processing & Management	National	Maharaja Surajmal Institute, New Delhi	2014
17	Back propagation Network for Temperature Forecasting	7th International Conference on Advanced Computing and Communication Technologies in association with Inderscience Publishers, UK	International	Asia Pacific Information Technology, Panipat, India.	2013
18	A Neural Networks approach for Rainfall forecasting	Current Scenario and Emerging trends in Information Technology	National	Maharaja Surajmal Institute, New Delhi	2013
19	Verification of k-means clustering technique to interpret Cloudburst over Leh	17th Annual Conference Of Gwalior Academy of Mathematical Sciences & National Symposium On Computational Mathematics & Information Technology	National	Jaypee University of Engineering & Technology, Raghogarh, Distt. Guna (MP) India.	2012
20	Search for alternative to MOS for interpretation of sub grid scale weather systems	Future Directions for Weather & Climate Research in the Tropics	National	Centre for Atmospheric Sciences, Indian Institute of Technology, Delhi,	2012
21	Data mining techniques for Interpretation of Weather events	Sixteenth Annual cum Second International Conference of Gwalior Academy of Mathematical Sciences (GAMS) and Second IFIP International Conference on Bio informatics	International	S.S. Dempo College of Commerce and Economics, Goa -	2011
22	Identification of weather system from Numerical Weather Prediction output data using Data Mining	4th IEEE Advanced Computing & Communication Technologies	International	APIIT SD, Panipat,	2010
23	Pattern data warehouse for analysis of cloudburst events using OLAP-based data hypercube for storage of Numerical Weather Prediction Model	Second National Conference on Data Warehouse, Data Mining and Data Modeling	National	Thapar University, Patiala	2010

	outputs				
24	Artificial Neural Networks for Rainfall Forecasting	Fifteenth Annual National Conference of Gwalior Academy of Mathematical Sciences (GAMS) on theme "Mathematics and Development of ICT (including allied applications)"	National	Mohyal Educational & Research Institute of Technology, New Delhi	2010
25	Multi dimensional data model for analysis of biological, climatological and atmospheric data	1st IFIP International Conference on Bioinformatics	International	Sardar Vallabhbhai National Institute of Technology, Surat	2010
26	Mapping of spatio-temporal weather relational databases onto a multidimensional data hypercube	Information Management In Knowledge Economy	National	University School of Management Studies, GGS Indraprastha University, Delhi	2010
27	Application of Multidimensional databases of Rainfall and Low Pressure Systems on OLAP-based model	2nd International Conference on Computer modeling and simulation (ICCMS 2010) Indexed by **Scopus**, EI Compendex and Thomson ISI.	International	International Association of Computer Science and Information Technology Sanya, China	2010
28	Mapping of spatio-temporal relational databases onto a multidimensional data hypercube (Awarded First Prize)	Einblick – Research Paper Competition held during Confluence 2010	International	Amity University, Noida	2010
29	"Data Mining – a tool in support of Interpretation of Low Pressure System movement over Indian Region	3rd National Conference; INDIACom-2009 Computing For Nation Development	National	Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi,	2009
30	Data Mining – a tool in support of Analysis of rainfall on spatial and temporal scale associated with Low Pressure Systems formation."	Intromet 2009, International Conference organized by India Meteorological Society and co-sponsored by India Meteorological Department, Ministry of Earth Sciences, Ministry of Agriculture, Department of Space, Ministry of Environment and Forests, Department of Science and Technology, Indian Council of Agricultural Research and World Meteorological Organization, New Delhi	International	NCMRWF, Noida	2009

		Proceedings published by Springer Heidelberg Dordrecht London New York, 2011			
31	Data mining - a tool in support of weather interpretation	poster presented at "Connected Society", 25th South East Asia Regional Computer Confederation (SEARCC) Conference, And 43rd Annual Convention Of Computer Society Of India (CSI)	International	Chennai Trade Centre, Chennai	2008
32	Data mining for spatio-temporal datasets with special reference to interpretation of weather patterns	International Brainstorming meeting on Modeling and Prediction over Indian Monsoon Region	International	NCMRWF, Noida	2005

11. Books and Journals Published/Edited:

S No.	Title of Book/Journal	Publisher	National/ International	Volume and Issue no. (in case of journal)	Year of Publication
1	Front End Design Tools (Authored)	JSR Publication	National	Second Edition ISBN No. 978-93-87684-24-9	2020
2	Object-Oriented Programming Using C++ (Authored)	Published by **I.K. International Publishers.** New Delhi, India, distributed by **Wiley Publishers.**	International	ISBN :978-93-86768-27-8	2019
3	Front End Design Tool VB.NET (Authored)	JSR Publishing House	National	First Edition ISBN No. 978-93-87684-24-9	2019
4	Learning Visual Basic.Net Programming (Front End Design Tool) (Authored)	Galgotia Publishing Company	National	ISBN: 978-93-86184-55-9	2017
5	Innovative Trends in Information Processing & Management (Edited)	Excellent Publishing House	National	ISBN:978-93-83083-54-1	2014
6	Application of Artificial Intelligence Tools -Impact on Weather Prediction	Scholars' Press, AV Akademikerverlag GmbH & Co. KG,	International	ISBN: 978-3-639-51010-2	2012

| | (Authored) | Germany | | | |

12. Book Chapters in National and International Books

S No.	Title of Chapter (Page No.)	Name of Book	National/ International	Year of Publication
1	KWIZ A Learning Management System	Assuring Quality in Higher Education: Innovations and Challenges ISBN: 978-93-86238-61-0	National	2018
2	Data mining based on Neural Networks for Gridded Rainfall Forecasting	Business Intelligence ISBN 979-953-307-595-1	International	2012

13. Patent / Copyright :

S No.	Title of Patent/Copyright	Applicants	Patent /copyright number and Year

14. Sponsored Project/Consultancy :

S No.	Title of Project/Consultancy	Applicants	Sanctioned Amount	Sponsoring Agency	Duration of the project specifying the date of sanctioning

15. Research Scholars (M.Tech/ M.Phil/Ph.D. Thesis Supervised) : None

S. No.	Full Name of the student	Title of Thesis	Name of the host University	Year of Awarded	Supervisor/ Co-supervisor

16. Membership of Professional Bodies : None

S No.	Name of the Professional Body	Member/Fellow (Membership No.)	Remarks
1	Computer Society of India	Senior Life Member	Membership No. 00113733
2	Institute of Electronics and Telecommunication Engineers	Life Member	Membership No. M-176009
3	Indian Meteorological Society	Life Member	LM No. 1327
4	IACSIT, Singapore	Member	Membership No. 80333880
5	Gwalior Academy of Mathematical Sciences (GAMS)	Life Member	L0055