JSS Mahavidyapeetha

JSS Academy of Technical Education

Department of Information Technology

FACULTY PROFILE

1. Personal Details

NAME	**Dr. Jyoti Gautam**	
DEPARTMENT	Information Technology	
DESIGNATION	Associate Professor	
PHONE	+91-9958306194	
EMAIL ID	jyotijssaten@gmail.com, jyotig@jssaten.ac.in	

2. Experience

Total Experience in Years : 23	Teaching: 23	Industry: NIL	Research: 13

Name of the Guide (Ph.D): Dr. Ela Kumar (Professor CSE), Dean (Student Affairs), Indira Gandhi Delhi Technical University for Women, Kashmere Gate, Delhi – 110006

Title of Thesis: Development of an optimized Website Ranking Algorithm for Semantic Web

Research Experience: 13 years, starting from the enrollment in Ph.D program

3. Qualifications

COURSES	SPECIALIZATION	Year of Award	INSTITUTION	UNIVERSITY
B.E.	Instrumentation and Control	1997	**Delhi Institute of Technology**	Delhi University **(NIRF Ranking – 12)**
M.E.	Computer Technology and Applications	1998	**Delhi College of Engineering**	Delhi University **(NIRF Ranking – 12)**
Ph.D.	'Semantic Web' in Computer Science	2015	School of **Information and Communication**	**Gautam Buddha University,** Greater

	and Engineering		**Technology**	NOIDA, Uttar Pradesh, India. **(Approved by UGC and Accredited by NAAC)**
Post Doc.	NA			

4. Research & Publications

Paper Published in **SCIE**	International: **01**	National: 0
Papers Published in **Web of Science** indexed Journals	International: **06**	National: 0
Papers Published in **SCOPUS** indexed Journals/**UGC-CARE list,** Indian Citation Index	International:01(**Scopus**), 01 **UGC-CARE list)**	National: 0
Papers Published in other Journals	0	0
Papers Presented in Conferences / Symposium	International : 12(**Scopus** Indexed)	
Books / Book chapters Published	**7 (total); 02** Book Chapters(**WOS** Indexed), 3 **Scopus,** 1 **ACM,** 1 DBLP	
	Name of the book: **Editor** of the **Book Series on 'Water Informatics'**, Publisher: **Springer** Year of Publication: 2024	

5. Research Guidance

PhD Guide? Give field & University	Yes, Digital Water/Smart Systems/ Data Mining/ Data-Analytics /Machine Learning/Artificial Intelligence	University: a. Dr. APJ AKTU, Lucknow, Uttar Pradesh b. Calcutta University
PhDs / Projects Guided	Guiding: 02 (Two) a. Ms. Dola Gupta (**DST Women Scientist, Calcutta University**) b. Mr. Ashwani Kansal (**Dr. APJ AKTU**, Lucknow, Uttar Pradesh)	Projects at Master"s Level: 10 Projects at Bachelor"s Level: 35

6. Grants

i. Funds Received (Research Projects, International Travel Grant, FDP and Session Chair)

Project Name	**Grant Amount**	**Date of receiving the Grant**	**Duration**	**Grant issuing authority/ Body / Organization**

IEEE Conference on **Future of Educational Innovation** at **Technologico De Monterrey,** held from **16th to 18th January 2023** at **Monterrey, Mexico**	Fully Sponsored by the University (Approximately **4 lacs**)			
A Computational Intelligence Approach to EEG Analytics for characterizing different levels of Intellectual Disability and Standardization of Yoga Protocol for Mild Disabled Children	**3 lacs**	May 6, 2019	1.5	TEQIP III of AKTU under Collaborative Research and Innovation Program
International Travel grant for presenting research work in the domain of Air Pollution using machine learning in the Kitakyushu City, Japan as an Invited Speaker. Received invitation from **The Director, Synchrotron, Light Application Center, Saga University, Japan.** The session was chaired by Dr. Chong Ong, Intel, Canada and was highly appreciated for its novel solution in the domain of Air Pollution. Received excellent presentation certificate for presenting the Research Work. Received certificate for actively participating in CECNet 2019. Participated as a reviewer for the conference also.	**1 lac**	July 15, 2019	NA	AKTU – International Travel Grant
Smart Air Pollution Management System	**Rs.50,000**	2018	2	JSS Academy of Higher Education and Research, Mysuru, India
Soft Computing: Techniques, Tools and Applications. (FDP)	**Rs. 1.5 Lacs**	June, 2018	NA	AKTU under TEQIP-phase 3 program
Session Chair by International Water Association for World Water Congress and Exhibition 2018, held in Tokyo Big Sight, JAPAN	**Registration Amount**	July, 2018	4 days	JSS Mahavidyapeetha, Mysuru, Karnataka, India

ii. Patents

Sl. No.	Title Details	Details of award of patent / Filed
1.	**Title:** Finding optimal water consumption and leakage rate in a residential area using a smart system **Name of the Applicant:** Dr. Jyoti Gautam	Patent Published.

7. Awards Received

(a.) Received the Award of Exceptional Women of Excellence at the 84th Edition of Women Economic Forum.

(a.) Appreciation Award from AKTU on 26th July, 2019 on its Founder's Day for outstanding and long services to the University.

(b.) Received excellent presentation certificate (Speaker Award) in CECNET 2019, held in Japan in 2019 from Dr. Chong Ong, Intel, Canada

8. Research and Publications

i. International Journals

Sl. No	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
1	RMSE Calculation of LSTM models for predicting prices of different Cryptocurrencies	Nitima Malsa, Vaibhav Vyas, Jyoti Gautam	International Journal of System Assurance Engineering and Management	Accepted	Scopus	1.653	Springer
2	Google Trend Analysis and Paradigm Shift of Online Education Platforms during the COVID-19 Pandemic	Ashwani Kumar Kansal, Jyoti Gautam, Nalini Chintalapudi , Shivani Jain, GOPI BATTINENI	Infectious Diseases Reports (MDPI Journal) Switzerland	Volume 13, Issue 2	ESCI/WOS/SCOPUS	0.487	MDPI(Switzerland)

3	Resolving interoperability issues of precision and array with null value of web services using WSIG jade framework	Jaspreet Kaur, Anil Ahlawat, Jyoti Gautam	Modelling and Simulation in Engineering	-	WOS/SCOPUS	1.94	Hindawai
4	Monitoring and Forecasting water consumption and detection of leakage using an IOT system	Jyoti Gautam, Amlan Chakrabarti, Shruti Agarwal, Anushka Singh, Shweta Gupta and Jatin Singh	Water Supply Journal	vol. 20.3, March 2020, pp. 1103-1113.	Elsevier Biobase; Engineering Information Inc.; Science Citation Index Expanded	1.275	IWA Publishing
5	Prognosis of Disease that may occur with growing age using confabulation based algorithm	Neha Srivastava and Jyoti Gautam	Defence Life Science Journal,	vol. 2, No. 4, October 2017, pp. 399-405	Indexed in the Scopus, UGC-CARE list, Indian Citation Index	0.41	Defense Scientific Information & Documentation Centre (DESIDOC)
6	Air Pollution Analysis using ontologies and regression models	Parul Choudhary and Dr. Jyoti Gautam	International Journal of Advanced Computer Science and Applications	vol. 7, issue 7, pp. 163-169, 2016	Thomson Reuters Emerging Sources Citation Index /WOS	1.09	SAI (Science and Information Organizatio

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7	Analysis of Medical Domain using CMARM: Confabulation Mapreduce Association Rule Mining	Dr. Jyoti Gautam and Ms. Neha Srivastava	International Journal of Advanced Computer Science and Applications	Vol. 6, Issue 11, 2015, pp. 224-228	Thomson Reuters Emerging Sources Citation Index /WOS	1.09	SAI (Science and Information Organization
8	Semantic Web improved with weighted IDF feature of the TFIDF	Ms. Jyoti Gautam and Dr. Ela Kumar	International Journal of Advanced Computer Science and Applications	Vol. 6, Issue 2, 2015, pp. 164-173	Thomson Reuters Emerging Sources Citation Index /WOS	1.09	SAI (Science and Information Organization
9	Semantic Web Improved by including Class Information with the TFIDF algorithm	Ms. Jyoti Gautam and Ela Kumar	IAENG Transactions on Engineering Sciences.	2015, pp. 342-357.	-	-	World Scientific Publishing Co. Pte. Ltd
10	Semantic Web Improved with Fuzziness added in Weighted Score	Ms. Jyoti Gautam and Ela Kumar	Transactions on Machine Learning and Artificial Intelligence	Vol.2, Number 5, Oct 2014, pp. 1-9	-	-	-

ii. Book Chapters

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Book	Volume No. Issue No. Year/ ISBN	WOS / Scopus / Both	Publisher

1	Blockchain Platforms and Interpreting the Effects of Bitcoin Pricing on Cryptocurrencies	Malsa N., Vyas V., Gautam J	Soft Computing: Theories and Applications. Advances in Intelligent Systems and Computing	vol 1380. /978-981-16-1739-3	Scopus	Springer, Singapore.
2	Framework and Smart Contract for Blockchain Enabled Certificate Verification System Using Robotics.	Malsa N., Vyas V., Gautam J., Shaw R.N., Ghosh A	Machine Learning for Robotics Applications. Studies in Computational Intelligence	vol 960./ 978-981-16-0597-0	Scopus	Springer, Singapore
3	Twitter Data Sentiment Analysis Using Naive Bayes Classifier and Generation of Heat Map for Analyzing Intensity Geographically.	Gautam J., Atrey M., Malsa N., Balyan A., Shaw R.N., Ghosh A.	Advances in Applications of Data-Driven Computing. Advances in Intelligent Systems and Computing,	vol 1319./ 978-981-33-6918-4	Scopus	Springer, Singapore.
4	Source of Treatment Selection for Different States of India and Performance Analysis Using Machine Learning Algorithms for Classification	Nitima Malsa, Pooja Singh, Jyoti Gautam, Arpita Srivastava, Santar Pal Singh	Soft Computing; Theories and Applications,	-	Scopus	Springer Nature Singapore Pte Ltd.,
5	Calculating AQI using Secondary Pollutants for Smart Air Management System	Jyoti Gautam, Nitima Malsa, Vikas Singhal and Komal Agrawal	Data Management, Analytics and Innovation. Advances in Intelligent Systems and Computing,	vol 1016.	Scopus	Springer, Singapore.
6	Prediction of El-Nino Year and Performance Analysis on the	Malsa Nitima, Jyoti Gautam	Asset Analytics: System Performance and Management Analytics, P.K.	-/978-981-10-7322-9	-	Springer Nature Singapore Pte Ltd.

	Calculated Correlation Coefficients	and Nisha Bairagee	Kapur, Y. Klochkov, A.K.Verma, G. Singh Eds., 2018			
7	Air Pollution Concentration Calculation and Prediction	Jyoti Gautam, Arushi Gupta, Kavya Gupta and Mahima Tiwari	Emerging Trends in Expert Applications and Security. Advances in Intelligent Systems and Computing,Springer	vol 841/978-981-13-2284-6	Scopus	Springer

iii. Conferences

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Conference	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
1	REDUCTION IN GAS COST FOR BLOCKCHAIN ENABLED SMART CONTRACT	Nitima Masla, Vaibhav Vyas, Jyoti Gautam, Rabindra Nath Shaw, Ankush Ghosh	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	Accepted	Scopus	-	IEEE
2	Selecting a Family Planning Method for Various Age Groups of Different States in India.	Jyoti Gautam, Nitima Malsa, Saumya Gautam, Dr Priyabrata Adhikary, Nitin K Gaur, Shivani Pathak	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON) University of Malaya, Kuala Lumpur, Malaysia. Sep 24-26, 2021	Accepted	Scopus	-	IEEE
3	Application of SARIMA for Prediction of Water Storage Levels	Aritra Dutta, Amlan Chakrabarti and Dr. Jyoti Gautam	3rd International Symposium for Advanced Electrical and Communication Technologies held in Kenitra, Morocco.	01st September 2021	Scopus	-	IEEE
4	IOT Based Real Time Monitoring of Water Level in Tanks using Machine Learning with	Jyoti Gautam, Prof. Gurulingappa M. Patil, Akarsh Gupta, Avni Agarwal,Shivanika Shah and Suhani	IWA Regional Conference on Opportunity for Water Reuse in South-East Asia phuket, Thailand	-	Scopus	-	IWA Publishing

	Android Application	Mittal					
5	A Survey on Methodologies used for Semantic Document Clustering	Aditi Gupta, Jyoti Gautam and Ajay Kumar	IEEE International Conference on Energy, Communication, Data Analytics and Soft Computing, 1-2 Aug, 2017, pp. 671-675.	-	Scopus	-	IEEE Explore Digital Library
6	Real time sentiment analysis of tweets using naive bayes	Ankur Goel, Jyoti Gautam, Sitesh Kumar	IEEE 2nd International Conference on Next Generation Computing Technologies (NGCT 2016), 14-16 Oct., 2016	-	Scopus	-	IEEE Explore Digital Library
7	Semantic Web Improved with the Weighted IDF Feature and the Class Information	Ms. Jyoti Gautam and Dr. Ela Kumar	The 2015 International Conference on Scientific Computing, Las Vegas, USA, 2015.	-	Scopus	-	World Comp-Proceedings
8	Semantic Web Improved with IDF Feature of the TFIDF algorithm	Ms. Jyoti Gautam, Dr. Ela Kumar and Ms. Mehjabin Khatoon	International Multi-Conference of Engineers and Computer Scientists 2014, Hong- Kong, Vol.1, pp. 233-239.	-	Scopus	-	IAENG
9	An Improved Framework for Tag- Based Academic Information Sharing and Recommendation System	Ms. Jyoti Gautam and Dr. Ela Kumar	World Congress of Engineering 2012, London, U.K, Vol 2, pp.845-850.	-	Scopus	-	IAENG

iv. Workshops /Conferences Attended

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	Participated as a **Delegate** in **IBM' Data Science and AI Forum,** which washeld in Taj Palace, New Delhi on 11th September, 2019.	IBM	11th September, 2019.
2	Participated as a **Delegate in Microsoft' Digital Governance Tech Summit,** which was held in Taj Palace, New Delhi on 27th September, 2019.	Microsoft	27th September, 2019
3	Invited as a speaker in **14th World Education Summit** in **New Delhi 09th -10th August, 2019.**	Elets Technomedia Pvt Ltd, Sec-62, , Stellar IT Park, Noida, 201309, India	**09th -10th August, 2019**
4	**One Week Short Term Course on Machine Learning and Its Applications (STC-MLA'2019)** from 02 –07 Feb, 2019, organized by Department of Computer Science and Engineering, School of Information and Communication Technology, Gautam Buddha University, Greater Noida, U.P., in collaboration with Computer Society of India, NOIDA Chapter and IEEE GBU Student Branch and Sponsored by DRDO.	GBU Student Branch and Sponsored by DRDO	02 –07 Feb, 2019
5	Soft Computing: Techniques, Tools and Applications. The FDP was approved as HOD CSE by AKTU under TEQIP-phase 3 program.	JSS	11-15th June, 2018
6	FDP in **AKTU** on **NBA OBE practice** , sponsored by AKTU	AKTU	13-14th April 2018
7	4th Information and Networking Event at Vadodara **for EU-India Water Cooperation** on 11-12 th January, 2018.	EU-India Water Cooperation Event	11-12th January 2018
8	**Intel India Research Colloquium**, which was held on **09 Oct, 2017 in Leela Palace, Bangalore.**	Intel	09th Oct, 2017

9	FDP on **Entrepreneurship Development** under **DST-NIMAT** project 2016-17 sponsored by **NSTEDB, Department of Science and Technology,** Implemented by **Entrepreneurship Development Institute of India (EDI**),	EDI India th	5-17th Dec 2016
10	**Workshop Soft Computing and Application** held in JSSATEN, jointly organized by the **Center for Soft Computing Research (CSCR)**, ISI, Kolkata	JSSATEN, jointly with CSCR, ISI, Kolkata	02-04 September 2014
11	**NBA WORKSHOP** for Experts/ Evaluators / Stakeholders organized by NODAL/TRAINING CENTRE, JSSATEN in association with **NBA, New Delhi**	JSSATEN, with NBA Delhi	17-19 ct, 2013

ii. Workshops / Conference (Organized)

Sl. No.	Name of the workshop / Conference	Organized by	Date	Role
1	**Coordinator** for **FDP** on **Soft Computing: Techniques, Tools and** Applications, held in CSE Department from 11-15 June, 2018.	JSSATEN	11-15 June, 2018	Coordinator

9. Details of NPTEL / COURSERA courses completed

Sl. No.	Name of the subject	Organized by	Date of completion / Award	Grade / Marks
1	"Introduction and Programming with IOT Boards".	COURSERA	07/07/2020	100
2	Effective Writing	NPTEL	22/06/20	93

10.Membership of Professional Bodies:

1. Member of International Water Association (Membership No. 1612589)
2. IAENG (Member No: 120142)
3. IEEE Member No. 94835782

11. Special Achievements/Invited Speakers/Jury Member/Faculty Sponsor

(a.) **Digital Water Program Steering Committee Member of the International Water Association 2022-24**.
PFA the link: https://iwa-network.org/news/new-digital-water-programme-steering-committee-announced/

(b.) **Member Executive Committee IWA (India).** International Water Association (India) has been created to be one stop platform for communicating updates with regards to IWA (I) activities, Executive Committee meetings, Water related events and conferences in South Asia and as a discussion forum to intensify the IWA activities in India with Chairman as Dr. S. Mohan, Professor and Former HOD, Environmental and Water Resources Engineering Division, Department of Civil Engineering, IIT Madras.

(c.) State President, Delhi Artificial Intelligence Council of WICCI (Women's Indian Chamber of Commerce and Industries).

(d.) Visiting Professor with **Rajiv Gandhi National Institute of Youth Development (Institute of National Importance)** Ministry of Youth Affairs and Sports, Govt. of India, Sriperumbudur.

(e.) Visiting Researcher at the Waterinformatics Laboratory of the department of Information Technology, AKCSIT, University of Calcutta.

(f.) Keynote Speaker for IEEE Conference on Future of **Educational Innovation** at **Technologico De Monterrey**, held from 16th to 18th January 2023 at Monterrey, Mexico. Dr. Uohana Theissen (Senior Data Scientist at Meta) and Mr. Mark Theissen). The trip was completely sponsored by the Tech De Monterrey.

(g.) Presented a **Workshop session** on 'An Innovative Paradigm in Water Informatics for Smart City Applications' alongwith Prof. Amlan Chakrabarti and Ms. Dola Gupta at **World Water Congress and Exhibition 2022**, which was held at Bella Center, Copenhagen, Denmark from 11th to 15th September, 22.

(h.) **Editor** for the proposed Book Series on 'Water Informatics' with Springer.

(i.) Received certificate of completion for **Innovation Ambassador** Training 'Foundation Level' conducted in online mode by MOE's Innovation Cell & AICTE during the Academic Year 2021-22.

(j.) Reviewed the "**Digital Water Book**' by the International Water Association.

(k.) Speaker for a **tutorial session** on **'Water Informatics: Case Studies'** in the 1st International Conference on Artificial Intelligence Trends and Pattern Recognition (ICAITPR) – 2022.

(l.) Presented a **Special Tutorial Session** at **ISAECT 2021** with the title as **'Water Informatics'** alongwith Prof. Amlan Chakrabarti, University of Calcutta, Head, IT & Tech. Innovation Cell, Dept. of Higher Education, Govt. of W.B., Professor & Director, A.K. Choudhury School of I.T., University of Calcutta. The session was hosted by College of Engineering at **Prince Mohammad Bin Fahd University (PMU).** The conference was held virtually via zoom on December 5 - 8, 2021. ISAECT'21 is organized by the Electrical Engineering Department at PMU and is cosponsored by the **European Space Agency (ESA)** and the **Institute of Electrical and Electronics Engineers (IEEE). https://isaect.org/preconference-workshops/**

(m.) Invited as a **resource person by CEBT(Centre for Emerging Business Technologies)** - School of Business and Management (MBA) (Deemed to be University), Pune Lavasa campus for a Water Symposium on the title 'Designing Digital Solutions for Water Management' on 21st August, 2021. Received excellent feedback for the Symposium.

(n.) Invited as a **resource person by Sinhgad Institute of Management (SIOM), Pune** for one week online FDP sponsored by AICTE on Machine Learning, Data Science and Deep Learning with Python. Received excellent feedback for this FDP. The FDP was conducted from 01st July to 16th July, 2021.

(o.) Invited as a **resource person by IWA Headquarters, London** for a Webinar on 'Water Informatics: Introduction and Case Studies'. Webinar hosted by IWA Headquarters, London and is now available on IWA Learn. PFA :https://iwa-network.org/learn/water-informatics-introduction-and-case-studies/. The total number of registrations was 335. Webinar was attended by CEOs, Data Scientists and Water Policy makers across the globe and was received with excellent feedback. The Webinar was conducted on 21st June, 2021.

(p.) On 30th July 2020, I was invited by **IWA (International Water Association) Specialist Group Water Loss**, to present a webinar on my research findings in the domain of Water Loss. This had been the application of machine learning and IOT in Water Loss. Roughly, there were 110 international participants from IWA Water Loss group. PFA the video. https://www.youtube.com/watch?v=15Xp2vqZci4

(q.) Published author **blog** post with International Water Association. PFA the link.
https ://www.iwapublishing.com/news/water-supply-author-blog-post.

(r.) Participated as a **Speaker in World Education Summit 2019**, which was held in Leela Ambience New Delhi on 09thand 10thAugust, 2019.

(s.) Attended as a **Session Chair**, Training and Science to Practice Forum at **IWA (International Water Association) World Water Congress and Exhibition 2018**, which was held in TOKYO BIG SIGHT, TOKYO, JAPAN from 16/09/2018 to21/09/2018. Attended as the session chair for the Category-Disinfection Products on 20thSep, 2018. Attended the event as session chair alongwith Chao Chen from Tsinghua University China (Secretary, Specialist Group of Disinfection Products, IWA).The presenters were from The University of Tokyo (Japan), North Dakota State University (United States), National Institute of Public Health (Japan) and Tsinghua University(China)

(t.) Delivered an expert lecture in one week **Faculty Development Programme** (FDP)/ Webinar on "Smart Cities: Opportunities and Challenges" during Sept. 10-14, 2020 organized online by NIT Patna. Delivered the talk on 14thSept, 2020 on 'Smart Cities: Use Cases'.

(u.) Invited **Speaker** in CECNET 2019, held in Japan. Attended as an Invited Speaker to share new research findings at the 5th International Conference on Fuzzy Systems and Data Mining (FSDM 2019)(Oct. 18-21, 2019, Kitakyushu International Conference Center, Japan) for the Paper -Air Pollution Concentration Calculation and Prediction. Received invitation from Director, Synchrotron Light Application Center, Saga University, JAPAN. Received excellent presentation certificate from Dr. Chong Ong, Intel, Canada and International Travel Grant from AKTU to attend the conference.

(v.) **Faculty Sponsor** for B.Tech. CSE passed out student, Ms. Shivanika Shah, batch 2014-2018, for the **Stanford University Innovation Fellows Program**.

(w.) Faculty Sponsor UiPath Student Developers Champions Program

(x.) **Jury** for **Smart India Hackathon 2019** held at JSSATE NOIDA for Yamaha.

(y.) **Jury** Member for **World Skills Competition Northern India Regional Round**.

(z.) Reviewer for some of the Conferences and Journals. Reviewed research work for the works supported by National Natural Science Foundation of China.

(aa.) Provided LOR to students for getting admission to Higher Studies in some of the leading colleges and universities across the globe.

Dr. Jyoti Gautam

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