FACULTY PROFILE

Department: Computer Science and Engineering

1. Personal Details

NAME	Dr. Kakoli Banerjee	**Photo(jpeg format)**
DEPARTMENT	CSE	
DESIGNATION	Associate Professor	
PHONE	9871807851	
EMAIL ID	Kakoli.banerjee@jssaaten.ac.in	
Date of Joining (JSSATEN)	23/08/2004	

2. Experience

Total Experience in Years	Teaching: 18 Years	Industry: 3	Research: 18 Years

3. Qualifications

COURSES	SPECIALIZATION	Year of Award	INSTITUTION	UNIVERSITY
B.Tech	Computer Science and Engineering		Institute of Engineering and Technology	Institute of Engineering and Technology
M.Tech.	Computer Science and Engineering	2004	Motilal Nehru National Institute of Technology,Allahabad	Motilal Nehru National Institute of Technology,Allahabad
Ph.D.	Computer Science and Engineering	2018	Shobhit University, Saharanpur	Shobhit University, Saharanpur

4. Research & Publications

Papers Published in Web of Science indexed Journals	International:2	National: 0
Papers Published in SCOPUS indexed Journals	International:8	National: 0
Papers Published in other Journals	International: 8	National:2
Papers Presented in Conferences / Symposium	International :8	National: 0
Books / Book chapters Published	Nil	
	Name of the book: Publisher:	

	Year of Publication:	

5. Research Guidance

PhD Guide? Give field & University	Nil	
PhDs / Projects Guided		Projects at Master's Level: 7 Projects at Bachelor's Level: 35+

6. Grants

i. Funds Received (Projects)

Project Name	Grant Amount	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
Received Rs.3 Lacks under Collaborative Research and Innovation Research (CRIP) Scheme of AKTU, Lucknow, for the Project, "Automated Groundwater Risk Assessment for Gautam Buddha Nagar District, Uttar Pradesh"	Rs.3 Lacks	04/04/2019	1 Year	AKTU, Lucknow,

ii. Patents

Sl. No.	Title Details	Details of award of patent / Filed
1	Smart Dustbin- Sanitation & Solid-Liquid Waste Management	Patent No. 202011000793 dated: 03.02.2020
2	Reduce, Re-Cycle and Reuse (RRR) IoT Intelligence Waste Management System	Patent No. 202111001043 Awarded 31/08/2021

iii. Consultancy

Title of the work	Amount in Rs.	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
Nil				

7. Awards Received

Awards "Best Paper Award"	[1] Paper presented in **37th Annual National Conference of IABMS** on "Current Advances in Integrated Biomedicine for Health Care",Shobhit University, Meerut, "**Inter Chromosomal** similarity based DNA sequence compression algorithm", 6th November 2016, Kakoli Banerjee, Dr. R. Prasad. This paper got the "Best Speaker Award". The paper has been selected for publication in journal named, Biomedicine by Indian Association of Biomedical Scientists, (which is a _Scopus indexed journal.)_ [2] Presented paper on "Improvement over LZW for Better Text Compression and Retrieval" in ICCII-2005. This paper got the "Best Speaker Award".

	[3] Won merit certificate in the Science Talent Search Examination in 1994.
	[4] Won AjoyBasu Gold Medal for best Academic performance for the year 2001 by the Bengali Welfare Association, Allahabad.
	[5] Won All India second position in creative writing organized by All India Society for Technical Education.

8. **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	Stress Analysis Using Machine Learning Techniques	Tanvi Sharma, Dr. Kakoli Banerjee, Sonali Mathur, and Dr. Vikram Bali	International Journal of Advanced Science and Technology	August 2020, Vol. 29, No. 3, pp. 14654 – 14665.	Scopus		
2	A Novel Approach for Depression Detection from Speech using MFCC and Machine Learning Algorithm	Tanvi Sharma, Dr. Kakoli Banerjee, Sonali Mathur	International Journal of Advanced Science and Technology	Vol. 29, No. 5, (2020), pp. 14277 – 14291	Scopus		
3	*An Evaluation Of Machine Learning Techniques In Predicting Depression Using Motion And Facial Expressions*	Tanvi Sharma, Dr. Kakoli Banerjee, Sonali Mathur	JETIR	August 2020, Volume 7, Issue 8.			
4	*Design and Development of Bioinformatics Feature Based DNA Sequence Data Compression Algorithm*	Dr. Kakoli Banerjee and Dr. Vikram Bali	EAI Endorsed Transactions on Pervasive Health and Technology	23 April 2020, doi: 10.4108/eai.13-7-2018.164097	Scopus		
5	*A Survey on Fatigue Detection of Workers using Machine Learning*	Nisha Yadav, Dr. Kakoli Banerjee and Dr. Vikram Bali	International Journal of E-Health and Medical Communications	Volume 11, Issue 3, Feb 2020	WoS & Scopus		
6	*Fatigue Detection of Workers using Supervised Learning*	Nisha Yadav, Dr. Kakoli Banerjee and Dr. Vikram Bali	Biological Forum	11(1): 236-242, June 2019	**WoS**		
7	*Railway Track Management System based on IoT devices and Software Application*	Dr. Kakoli Banerjee, Saurabh Ranjan, Naman Jain, Aayush	Journal of Emerging Technologies and Innovative Research	Volume 6, Issue 6, June 2019			

	facilitating touch user interface	Jaiswal, Harshit Verma, Divya Khanna, Prateek Mittal, Prakhar P. Bhardawaj					
8	DNA Compression Algorithm –using Inter Vs Intra Chromosomal Repeats	KAKOLI BANERJEE, DR. D. V. RAI	International Journal of Theoretical & Applied Sciences	2018. Vol. 9, no. 2, p. 269-273			
9	New Method for Inter Chromosomal Sequence Compression	KAKOLI BANERJEE, and DR. R. A. PRASAD	International Journal of Engineering Technology, Management and Applied Sciences	2015. Vol. Volume 3, no. Issue 5, ISSN 2349 – 4476, p. 188-193.			
10	A new technique in reference based DNA sequence compression algorithm: Enabling partial decompression	KAKOLI BANERJEE, and DR. R. A. PRASAD	AIP Publishing LLC (SCOPUS INDEXED)	2014. DOI 10.1063/1.4897853.	Scopus		
11	Exact Repeat Based Intra Chromosomal DNA Compression Algorithm	KAKOLI BANERJEE, and DR. R. A. PRASAD	GLIMPSES – An International Journal of Multidisciplinary Research", ISSN: 2250-0561	2013. Vol. 1, no. 3, p. 259-270			
12	Stress Analysis Using Machine Learning Techniques	Tanvi Sharma, Dr. Kakoli Banerjee, Sonali Mathur, and Dr. Vikram Bali	International Journal of Advanced Science and Technology	August 2020, Vol. 29, No. 3, pp. 14654 – 14665.	Scopus		

ii. National 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
Nil							

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	*Analysis of Groundwater quality using GIS Based water quality index in Noida, Gautam*	Dr. Kakoli Banerjee, Santhosh Kumar M B, Tilak L N	ICAAAIML-2020-International Conference on Advances and Applications of Artificial Intelligence & Machine Learning held on 29th	Published in Springer prestigious Lecture Notes in Electrical Engineering series. 2020	Scopus		

	Buddh Nagar, Uttar Pradesh (U.P), India		– 30th October, 2020 at Sharda University, Noida, India			
2	*Delineation of potential groundwater zones using Analytical hierarchy process (AHP) for Gautham Buddha Nagar District, Uttar Pradesh, India*	Dr. Kakoli Banerjee, Santhosh Kumar M B, Tilak L N	iCADMA 2020 held and organized by MNIT Jaipur during November 05-06, 2020.	Published in "SPRINGER: MATERIALS TODAY"	Scopus	
3	Reference based inter chromosomal similarity-based DNA sequence compression algorithm.	KAKOLI BANERJEE, and DR. R. A. PRASAD	*International Conference on Computing, Communication and Automation (ICCCA).*	2017. DOI 10.1109/ccaa.2017.8229806. IEEE (SCOPUS INDEXED)	Scopus	
4	Inter Chromosomal similarity based DNA sequence compression algorithm	Kakoli Banerjee, Dr. R. Prasad.	37th Annual National Conference of IABMS on "Current Advances in Integrated Biomedicine for Health Care",Shobhit University, Meerut.	2016		
5	Improvement over LZW for Better Text Compression and Retrieval	Kakoli Banerjee	[16] ICCII-2005	Paper also published in the conference procedings		

iv.   **Workshops /Conferences Attended**

Name of the workshop / Conference	Organizer	Date
Six days National workshop on "Intellectual Property Rights"	JSS Academy of Technical Education, Noida	One week 01.03.2020 - 06.03.2020
AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime".	JSS Academy of Technical Education, Noida	One week 23.11.2020-28.11.2020.
AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime".	JSS Academy of Technical Education, Noida	One week 07.12.2020-12.12.2020
AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime".	JSS Academy of Technical Education, Noida	One week 14.12.2020-19.12.2020
Global E-Symposium on "Global Pandemic Outbreak: Role of Technology & Automation"	JSS Academy of Technical Education, Noida	One week 01.06.2020 – 05.06.2020

Faculty Development Program on "Transforming Education with Industry 4.0"	Jaypee University of Information Technology, Waknaghat Solan, HP, India	One week 15.06.2020 -20.06.2020
Faculty Development Program on "Digital Learning with Multidisciplinary Approaches (DLMA	JSS Academy of Technical Education, Noida	One week 12.06.2020 -17.06.2020
Faculty Development Programme on RECENT ADVANCES IN COMPUTER SCIENCE AND ALLIED DOMAINS (RACSAD 2020)	Sharda University, Greater Noida.	One week 08.06.2020 -12.06.2020
International webinar on Qualitative Research, Blogs Writing and Neuro Science in outbreak of COVID-19"	JSS Academy of Technical Education Noida	Three Days 20.05.2020 – 22.05.2020
Two week online Faculty Development Programme on "Python"	JSS Academy of Technical Education Noida	22.06.2020 – 04.07.2020
Internet of Things through ICT	JSS Academy of Technical Education, Noida	One week ● 06-10th August, 2018.
Soft-Computing : Techniques, Tools and Applications	JSS Academy of Technical Education, Noida	One week ● 11-15th June, 2018.
Application of GIS and RS in Civil Engg(One week FDP)	JSS Academy of Technical Education, Noida	One week ● 11-15th June, 2018.
ICT Based course on Scilab Programming (One week FDP)	JSS Academy of Technical Education, Noida	One week ● 21stAug - 25th Aug 2017
Machine Learning and its applications in Text and Image Analytics(One week FDP)	JSS Academy of Technical Education, Noida	One week ● 30th Jan-3rdFebruary 2017
ICT Based course on Cloud Computing (One week FDP)	JSS Academy of Technical Education, Noida	One week ● 5th June-9thDecember 2016
ICT Based course on Wireless Networks (One week FDP)	JSS Academy of Technical Education, Noida	One week ● 2thMay-6thMay 2016
Emerging Trends in Computing Education (One week FDP)	Jaypee Institute of Information Technology, Noida	One week ● 6th July-11th July 2015
Technical Teacher's Role, Self-Esteem, Motivation and Professionalism Development through ICT (One week FDP)	JSS Academy of Technical Education, Noida	One week ● 8th June-12thJune 2015
Workshop on Soft Computing and Application (SCA' 14) (Three Days workshop)	JSS Academy of Technical Education, Noida	Three Days 2ndSep - 4thSep 2014
Pedagogy foe Effective use of ICT in Engineering Education(Two weeks ISTE Workshop)	MGM College of Engineering and Technology, Noida (RCID – 1205)	Two Weeks ● 08thJan –18th Jan 2014 and 22nd Jan – 31st Jan 2014 ● 05thJan –07th Jan 2014 and 19th Jan – 21st Jan 2014
Computer Networking (Two weeks ISTE Workshop)	MGM College of Engineering and Technology, Noida (RCID – 1205)	Two Weeks ● 28thMay – 29th June2014 ● 30th June – 05th July 2014

Training on GIS	ESRI, New Delhi Head Office	1 Dar
Trained on DB2 by IBM	JSS Academy of Technical Education, Noida	5 Days
Trained on Maya 8.5 by MAAC	JSS Academy of Technical Education, Noida	3 Days
Trained on .NET Framework by Microsoft	UPTU, Noida	1 Day
Trained on SciLab	JSS Academy of Technical Education, Noida	1 Day

ii. **Workshops / Conference (Organized)**

Sl. No.	Name of the workshop / Conference	Organized by	Date	Role
1	CCIP 2015. The CCIP 2015 is the first international conference on cognitive computing and information processing domain being held in In.dia. This conference was held in JSS Academy Of Technical Education, Noida, Uttar Pradesh. Technically Co-Sponsored By IEEE UP Section (Conference #35256)	IEEE	3-4 March 2015	Publication Committee
2	The International Conference on Intelligent Control and Computation for Smart Energy and Mechatronics Systems	JSSATEN	25 - 26 Sep 2020	Publication Committee
	FDP on Soft Computing: Techniques, Tools and Applications	JSSATEN (TEQIP-III)	11.06.2018 to 15.06.2018	Organizing Committee
	5-Day STTP on "Computer Forensics & Cyber Crime	JSSATEN (AICTE sponsored)	23.11.2020 to 28.11.2020	STTP Coordinator
	5-Day STTP on "Computer Forensics & Cyber Crime	JSSATEN (AICTE sponsored)	07.12.2020 to 12.12.2020	STTP Coordinator
	5-Day STTP on "Computer Forensics & Cyber Crime	JSSATEN (AICTE sponsored)	14.12.2020 to 19.12.2020	STTP Coordinator
	Global Pandemic Outbreak: Role of Technology & Automation	JSSATEN	01.06.2020 to 05.06.2020	STTP Coordinator

	FDP on Soft Computing: Techniques, Tools and Applications	JSSATEN (TEQIP-III)	11.06.2018 to 15.06.2018	Organizing Committee

i. **Conference Attended (those sponsored by AICTE / ISTE /IETE /TEQIP or any other sponsoring body)**

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	ICCSEMS-2020	JSSATE, Noida	25.09.2020 – 26.09.20201
2	CCIP 2015	JSSATE, Noida	3-4 March 2015

9. **Details of NPTEL / COURSERA courses completed**

Sl. No.	Name of the subject	Organized by	Date of completion / Award	Grade / Marks
1	Effective Engineering Teaching in Practice	NPTEL	2020	88%
2	NBA Accreditation and teaching-learning in Engineering	NPTEL	2020	92%

10. **Membership of Professional Bodies:**

> 1. Institute of Electrical and Electronics Engineers (IEEE)
>
> 2. Indian Society for Technical Education (ISTE)

11. **Any other information you will like to share about your professional experience**

- Coordinator of AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime". It was a series of three Online Short Term Training Programmes sponsored by AICTE. The first STTP was from 23.11.2020-28.11.2020.
- Coordinator of AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime". It was a series of three Online Short Term Training Programmes sponsored by AICTE. The first STTP was from 07.12.2020-12.12.2020.
- Coordinator of AICTE sponsored three, one week online Short-Term Training Programs (STTP) on "Computer Forensics & Cyber Crime". It was a series of three Online Short Term Training Programmes sponsored by AICTE. The first STTP was from 14.12.2020-19.12.2020.
- Coordinator of Day 5 - Global E-Symposium on "Global Pandemic Outbreak: Role of Technology & Automation" from 1st June, 2020 to 5th June, 2020.
- Organizing Member of (TEQIP-III) 5- Day FDP on "Soft-Computing: Techniques, Tools & Applications" sponsored by Dr. A.P.J. Abdul Kalam Technical University, Lucknow, from 11.06.2018 to 15.06.2018 at JSS Academy of Technical Education, Noida.
- Working as Guest Editor of the Special issue on Impact of Democratization of DARQ Technologies and Data Policing on Information Retrieval in International Journal of Information Retrieval Research (IJIRR) (IGI Global)
- Published Book on "Industry 4.0: Research Trends, Challenges and Future of AI in Data Science", CRC Press, Taylor & Francis Group. (Under Publication) HB ISBN# 978-0-367-56285-4, EB ISBN# 978-1-003-09718-1, PB ISBN# 978-0-367-56291-5
- Working as Book Editor for **Springer** Book "Decision Analytics for Sustainable Development in Smart Society 5.0", Springer Nature. (Under Process)
- Session Chair for International Conference on Intelligent Control and Computation for Smart Energy and Mechatronics Systems (ICCSEMS-2020) held on 25th-26th September 2020.
- Session Chair for International Conference on Applied Scientific Computational Intelligence using Data Science (ASCI-2020) Organized by Department of Computer Applications, Manipal University Jaipur, India held online on 22-23 December 2020.
- **Reviewer of Conferences :** ICI2C-2021: International Conference on Industrial Instrumentation & Control 2021
- **Reviewer of Conferences :** ICIPTM-2021: International Conference on Innovative Practices in Technology and Management 2021
- **Reviewer of Conferences :** Confluence-2021:11th International Conference on Cloud Computing, Data Science & Engineering 2021
- **Reviewer of Conferences :** ICCCIS-2021: International Conference on Computing, Communication, and Intelligent Systems 2021
- **Reviewer of Conferences :** ICCAKM – 2021: 2nd International Conference on Computation, Automation and Knowledge Management 2021

- **Reviewer of Conferences :** ICIEM-2021: 2ND International Conference on Intelligent Engineering and Management 2021
- **Reviewer of Conferences :** ICCSEMS-2020: The International Conference on Intelligent Control and Computation for Smart Energy and Mechatronics Systems 2020 ETC.