SARITA GAJANAN RATHOD

ASSISTANT PROFESSOR | INFORMATION TECHNOLOGY

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PROFESSIONAL PROFILE

Academic professional with teaching experience from 2006 onward across Information Technology and Computer Engineering, with sustained involvement in undergraduate/postgraduate teaching, student mentoring, curriculum development, accreditation, research projects, publications, conference service and technical-event coordination. Research and professional interests span Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Generative AI, Agentic AI, medical image analysis, computer vision and data analytics.

CAREER HIGHLIGHTS

- 20+ years of academic teaching experience in engineering education.
- Assistant Professor at K. J. Somaiya Institute of Technology since January 2015.
- Ph.D. in Computer Engineering – pursuing; M.E. in Information Technology (2013); B.E. in Information Technology (2005).
- Experience in curriculum/syllabus design, NBA/NAAC activities, TCS accreditation, examinations, mentoring, internships and project coordination.
- Research publication record covering NLP, image processing, plagiarism detection, digital systems, healthcare AI and explainable AI.
- Active reviewer/session chair/jury member for international conferences, national project competitions and hackathons.
- Student research mentoring with participation and awards at Aavishkar and IIT Bombay ResCon.

EDUCATION

Qualification	Specialization	Institution / University	Year / Status
Ph.D.	Computer Engineering	K. J. Somaiya Institute of Technology / University of Mumbai	Pursuing
M.E.	Information Technology	VESIT / University of Mumbai	2013
B.E.	Information Technology	Government College of Engineering, Amravati	2005

ACADEMIC EXPERIENCE

Assistant Professor – Information Technology | *K. J. Somaiya Institute of Technology, Sion, Mumbai* | 09 Jan 2015 – Present

Assistant Professor – Computer Engineering | *K C College of Engineering, Thane* | 01 Sep 2014 – 31 Dec 2014

Assistant Professor – Information Technology | *Shah And Anchor Kutchhi Engineering College, Mumbai* | 15 Sep 2011 – 31 Aug 2014

Lecturer – Computer Engineering | *G V Acharya Institute of Engineering and Technology* | 11 Jul 2009 – 29 Apr 2011

Lecturer – Computer Engineering | *Shah And Anchor Kutchhi Engineering College, Mumbai* | 11 Feb 2008 – 10 Jul 2009

Lecturer – Computer Engineering | *Konkan Gyanpeeth College of Engineering, Karjat* | 01 Aug 2006 – 07 Feb 2008

TEACHING PORTFOLIO

- Data Structures & Algorithms; Analysis and Design of Algorithms.
- Database Management Systems; Convergence Technology and Network Communication; Advanced Computer Networks.
- Internet Programming: HTML, CSS, JavaScript, MERN/MEAN Stack and TypeScript.
- Computer Graphics and Virtual Reality; E-Commerce, E-Business and Mobile E-Commerce.
- Programming with C, Java and Python.
- Natural Language Processing; Data Mining and Business Intelligence.

RESEARCH INTERESTS

Core Research	Application / Supporting Areas
Artificial Intelligence; Machine Learning; Deep Learning	Data Analytics; Computer Vision
Natural Language Processing; Generative AI; Agentic AI	Intelligent web and software applications
Medical Image Analysis	AI-enabled healthcare applications

JOURNAL PUBLICATIONS

Year	Research Publication	Journal	Bibliographic Detail
2025	Improving breast cancer prediction through explainable artificial intelligence – A transdisciplinary approach	Indonesian Journal of Electrical Engineering and Computer Science	DOI: 10.11591/ijeecs.v40.i1.pp288-296; Scopus
2014	Machine Translation of Natural Language using different Approaches: ETSTS	International Journal of Computer Applications, Vol. 102, No. 15	ISSN 0975-8887

2012	English to Sanskrit Translator and Synthesizer (ETSTS)	International Journal of Emerging Technology and Advanced Engineering, Vol. 2, Issue 12	ISSN 2250-2459

CONFERENCE PUBLICATIONS / PRESENTATIONS

- 2026 — "Threat'Sentry: An Adaptive Framework for Detecting and Defending Against Adversarial Attacks in Machine Learning Models." 11th International Conference on Information and Communication Technology for Sustainable Development, Goa, 9–11 July 2026; Springer book series, Scopus indexed.
- 2025 — "AI Driven ADHD Detection: A Machine Learning Approach for Early Diagnosis." 7th International Conference on Advances in Science & Technology (ICAST 2025), 20–21 June 2025; CRC Taylor & Francis.
- 2025 — "Review on Autism Spectrum Disorder Assessment in Pediatric Neurodevelopment to Identify the Biomarkers." 9th International Conference on Information and Communication Technology for Intelligent Systems, Bangkok, 4–6 April 2025; Springer Nature, Scopus indexed.
- 2024 — "Tool for Ground Personnel Monitoring." 9th International Conference on ICT for Sustainable Development, Goa, 8–9 August 2024; Springer/Springer Nature.
- 2023/2025 — "Smart Healthcare System for Prediction of Fungal-infection, Bacterial, Air-borne, Water-borne and Hormonal Diseases using AI." AIP Conference Proceedings 3162, 020030 (2025). DOI: 10.1063/5.0250103.
- 2023 — "Crowdfunding campaigns web application Using Metamask." IEEE-ICAST 2023. DOI: 10.1109/ICAST59062.2023.10454971; EID: 2-s2.0-85187787090.
- 2023 — "Developing Innovation and Technology through a Gender-Responsive Lens for Sustainable Progress." Global Conference on Sustainable and Futuristic Technologies 2023.
- 2025 — "A Concise Review of Hallucinations in LLMs and their Mitigation." arXiv preprint, 2 December 2025.
- 2012 — "New technique for Natural Language Processing." International Conference on Recent Trends in Computing, Mechatronics and Communication, Om Institute of Technology & Management, Hisar, 25–26 February 2012.
- 2012 — "Translation and Synthesis of English to Sanskrit Natural Language (ETSTS)." International Conference on Recent Trends in Control, Communication and Computer Technology, IRNet, Nashik, 25 November 2012.

RESEARCH, LIVE PROJECTS & STUDENT MENTORING

- English to Sanskrit Translator and Synthesizer (ETSTS) — M.E. major project using Java and SQL.
- Audio System Controlling Using Remote Control — B.E. major project.
- Event Management System — K. J. Somaiya Institute of Technology, 2021; completed.
- Automatic Result Analysis — K. J. Somaiya Institute of Technology, 2021; completed.
- OCR — Ellipsis Pvt. Ltd., Ahmedabad, January–March 2025; completed with mentoring.
- IoT-based Power Consumption Control and Monitoring System — mentored UG project; consolation at 17th Aavishkar final round (2022) and third prize with INR 20,000 at IIT Bombay ResCon (2023).
- Solar Panel Cleaning System — mentored UG project; participated in 18th Aavishkar final round, 2023.
- Smart Cap for Visually Impaired People and CalmConnect: VR-Based Mental Health Therapy — mentored projects at 19th Aavishkar zonal round.
- Threat'Sentry: Detect, Defend and Simulate — mentored project presented at 20th Aavishkar zonal round, 2025.
- AskVeda AI: Scripture-Powered AI Query Engine — mentored project presented at 20th Aavishkar zonal round, 2025.

ACADEMIC LEADERSHIP, ADMINISTRATION & CURRICULUM

- NBA/NAAC Criterion Coordinator; Class Teacher/Mentor; Examination Coordinator; Project Coordinator.
- Training & Placement Coordinator; Internship Coordinator; Innovation/Research Coordinator; Result Analysis Coordinator.
- AI for Youth – Intel Digital Readiness Coordinator.
- Track Coordinator for the 7th International Conference on Advances in Science and Technology (ICAST-2025).
- Coordinator for TCS Accreditation, August 2024.
- Member, Board of Studies in Information Technology; contributed to autonomous B.Tech. IT curriculum design incorporating emerging technologies, industry requirements, alumni and expert inputs.
- Contributed to University of Mumbai curriculum design for IT courses, IT-related Open Electives and Web Technology curriculum for affiliated engineering colleges.
- University examination duties including examiner, moderator and paper setter for IT/Computer Engineering programmes.
- Contributed to syllabus design for Web Development common across branches and University of Mumbai Web Technology (Theory + Laboratory).
- Member of ACES college-level committee, ISTE committee and IET.

SELECTED ACTIVITIES ORGANIZED / COORDINATED

- Summer internship for SY/TY students on MERN Stack, May–June 2023.
- Winter internship on Web Development & Git, December 2023.
- National Level Intercollegiate Poster cum Project Competition KJSIT-IET-INTECH 2K23; Oscillation-2023; Kavach – Solution Pitch Competition.
- KJSIT Campus Hackathons 2023, 2024 and 2025.
- Summer internship on Full Stack, May–June 2024; winter internship on live projects with Ellipsis Pvt. Ltd., December 2024.

- Technical Upskilling Programme on Web Design Essentials: HTML & CSS and Project-Based Learning: Idea Presentation, July 2024.
- Guest lecture on Placement Grooming, September 2024; Placement Preparation Programme, July 2025.
- Bootcamp "From Idea to Product to Patent", December 2025, including a 3D Printing Workshop.
- One-month internship under the institute R&D Cell, December 2025–January 2026.
- Webinar "Modern Web Technology with AI Integration", February 2026.
- Coordinator, Research and Innovation Exhibition during the Silver Jubilee celebration, March 2026.

FACULTY DEVELOPMENT PROGRAMS – EARLIER & RECENT

Year	Programme	Duration
2009	Networks and Internet Security	23–27 Nov 2009
2012	Wireless Communication and Mobile Technology	3–7 Jan 2012
2012	Advanced Web Technology	17–21 Jan 2012
2012	Digital Signal Processing with Image Processing	9–13 Jul 2012
2013	Research Methodology and Current Trends	16–20 Dec 2013
2014	Hands-on: Advanced Computational Tools	15–26 Dec 2014
2015	Recent Advances in Big Data Technologies & Applications	4–8 May 2015
2016	IoT Applications and Development	2–7 May 2016
2018	Outcome Based Education	7–8 May 2018
2019	Artificial Intelligence, Deep Learning and Machine Learning	24–29 Jun 2019
2019	Team Building Through the Power of Emotional Intelligence	4 Jan 2019
2020	Leveraging Artificial Intelligence and Data Analytics for Healthcare – AICTE AQIS STTP	14–19 Dec 2020
2021	Leveraging Artificial Intelligence and Data Analytics for Healthcare – AICTE AQIS STTP	4–9 Jan 2021
2021	Research Funding Projects & IPR	7–9 Jun 2021
2021	Being an Autonomous Institute: Roles, Responsibilities and Action Plan	14 May–7 Jun 2021
2023	Innovation and IPR	26–30 Jun 2023
2023	Cybersecurity and Forensics	Jun 2023
2023	Building Advanced Data Analytics Application with Cloud	18–22 Dec 2023
2023	Research and Publication Ethics for Ph.D. Students	1–10 Dec 2023
2024	Empowering Research: Leveraging OpenAI Tools for Scientific Inquiry	24 Feb 2024
2024	Hands-on AI Tools: Creative Research Writing	17–21 Jun 2024
2024	GEN AI	8–13 Jul 2024
2024	Full Stack Development in AI	2–7 Dec 2024
2024	Leveraging Healthcare: Innovations, Technology and Applications (HealthITA)	16–21 Dec 2024
2024	Building Intelligence: Hands-on Deep Learning, Generative AI and Toolkits	9–14 Dec 2024
2025	Leveraging Artificial Intelligence for Climate and Sustainability – ATAL	3–8 Feb 2025
2025	Generative AI Fluency – ATAL Academy	17–22 Nov 2025
2025	Leveraging Generative AI and Machine Learning in Data-Driven Research – ATAL	1–6 Dec 2025
2025	Faculty Research Symposium (FRS 2025)	10 Oct 2025
2026	AI & Machine Learning for Engineering and Healthcare Applications – ISTE approved	15–20 Jun 2026
2026	National Symposium on Sustainable Agriculture Innovation through Geospatial and AI	22–24 Apr 2026

WORKSHOPS, TRAINING & CERTIFICATIONS

- NPTEL Awareness Workshop – KJSIT, 8 January 2016.
- Network Management Tools Workshop, 10–11 September 2012.
- SOA Workshop – VESIT, 9–14 January 2012.
- Intellectual Property Rights and IP Management for Startups – IIC, KJSIT, 16 May 2021.
- Learning to Teach Online – UNSW Sydney through Coursera, 22 July 2020.
- NLP – NPTEL, January–April 2024.
- JAVA/J2EE – NIIT Ltd., Pune, six-month programme.
- AI for Youth Program – Intel Digital Readiness, August 2023.
- AI for Future Workforce Train-the-Trainer – Introduction to NLP, Generative AI and Computer Vision, June–July 2025.
- Certified Facilitator – AI for Future Workforce Program in India, 20 July 2025.
- AI-Driven NLP & LLMs for Sustainability – VESIT, 23–28 April 2026.
- Probing the Research Process: From Idea to Impact – KJSIT, 2 August 2025.

ACADEMIC SERVICE, REVIEWING & RECOGNITION

- Session Chair – 9th International Conference on Information and Communication Technology for Intelligent Systems, Bangkok, April 2025.
- Reviewer – IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2026).
- Reviewer – 6th Biennial International Conference on Nascent Technologies in Engineering (ICNTE-2026).
- Reviewer – 7th International Conference on Advances in Science & Technology (ICAST 2024–25).
- Reviewer – IEEE-ICAST 2022 and IEEE-ICAST 2023; reviewer for ICNTE-2023.
- Jury for InnoTech Inter-College Project Competition and national-level KJSIT-IET-INTECH competitions.

- Jury for KJSIT Campus Hackathons 2023, 2024 and 2025.
- Recognition for Student Mentoring in NPTEL.
- Certified Facilitator of AI for Future Workforce Program in India.

PROFESSIONAL MEMBERSHIPS

- Member, ACES college-level committee.
- Member, ISTE committee.
- Member, Institution of Engineering and Technology (IET).

TECHNICAL SKILLS

Area	Competencies
Programming	Python, Java, JavaScript, TypeScript, C/C++
Web Technologies	HTML5, CSS3, React.js, Angular, Node.js, Express.js, MongoDB
AI / ML	TensorFlow, PyTorch, Scikit-Learn, OpenCV
Research / Development Tools	Git, GitHub, Docker, Jupyter Notebook, Google Colab

CO-CURRICULAR & EXTRA-CURRICULAR ENGAGEMENT

- Student mentoring and counselling.
- Organization of technical events, hackathons, workshops and training programmes.
- Community outreach, entrepreneurship and innovation activities.
- Student project mentoring and research-convention participation.

PROFESSIONAL PROFILES

Platform	Identifier
ORCID	0009-0005-4857-0322
Scopus Author ID	57226339795
Google Scholar	oye4T1UAAAAJ
Springer	Sarita Rathod author/search profile

DECLARATION

I hereby declare that the information presented in this academic CV is based on the academic and professional records supplied for preparation of this document and is true to the best of my knowledge.