DR. DHEERAJ KUMAR SINGH

Mobile: +91 8000503090
E-Mail: dhirajsingh66@gmail.com
ORCID ID: 0000-0001-5071-3306
Current Designation: Assistant Professor, IT Department, Parul Institute of Engineering and Technology, Parul University, Vadodara.

CAREER OBJECTIVE

☞ To utilize my Education, Technical knowledge, Skill Set and Experiences to the Education arena, focusing on teaching, learning, and research.

☞ To contribute in innovative projects focused on Artificial Intelligence, Data Science, automation, and smart systems while continuously enhancing my skills for organizational growth.

EMPLOYMENT DETAILS

☞ **Having more than 13 Years of experience in academic at UG and PG level and 2 years and 4 months industrial experience in part time.**

1	Organization	Faculty of Engineering and Technology, PIET, Parul University, Vadodara
	Designation	Assistant Professor
	Duration	1/05/2012 – Current Date
	Job Responsibility	Teaching, Mentoring, UG Project Guide, PG dissertation Guide, PG Coordinator, Institute IQAC Member, Exam Coordinator, NAAC, NBA, NIRF, GSIRF and other ranking coordination, Board of studies member, Student Handbook, curriculum, Syllabus & Lab manual Design, E-content development, MOOC Coordinator for NPTEL, Coursera, Infosys Spring board, Discipline Committee Member
2	Organization	AKG Media Pvt. Limited, Bhopal
	Designation	Associate Database Developer
	Duration	13/10/2009 to 15/02/2012
	Job Responsibility	Database Maintenance, Video Meta data Publishing, Java web Scrapping, Video QA & Editing, Facebook Application Development

EDUCATIONAL QUALIFICATION

Qualification	Discipline / Specialization	Board\ University	Year of Completion	Percentage (%)
Ph. D.	Computer/IT Engineering	Gujarat Technological University, Ahmedabad	2024	-
M. Tech.	Information Technology	Rajiv Gandhi proudyogiki vishwavidyalaya, Bhopal	2012	67.27
B. E.	Computer Science & Engineering	Rajiv Gandhi proudyogiki vishwavidyalaya, Bhopal	2009	68.13
H.S.C. (Intermediate)	Science	Bihar Intermediate Education Council, Patna	2005	53.45
S.S.C. (10th)	All Subjects	Jharkhand Secondary Examination Board, Ranchi	2003	62.6

PROJECTS & CONSULTANCY

1	Project Title	AI, IoT and Digital Technologies for Future Sustainable Smart Cities
	Nature of Project & Funding (if any)	Multidisciplinary Research Project, Funding: 80,000 €
	Organization	Royal Academy of Engineering, UK
	Role	Team Member and objective lead
	Duration	1/04/2021 – 30/04/2023
	Outcome	• Developed an adaptive and smart traffic signal system with a simulation and visualization dashboard. • Developed a traffic surveillance system to keep track of in and out vehicles at any entry or exit point. • Implemented Crowd Detection & People Counting from CCTV Video. • Developed Multi-language feature for MyVadodara App. • Developed a mobile app for Unified Response System: Improving Health Care

		Services and Disaster Management.
		• Conducted multiple surveys of Municipal Corporation Apps from five smart cities.
		• Developed an app for detection of vehicles parked in non-parking zones.
		• Interaction with experts working on smart city for ground reality understanding and real-time data collection.
		• A group of 16 students got the opportunity to peruse their B. Tech. and M.Tech. Projects.
		• More than 200 students have visited City Command Control Centre at Vadodara and Dahod to learn about the work done in the smart city project.
		• Conducted five workshops to disseminate the knowledge acquired during the period of the project. More than 500 participants from academia and industry got benefit from the workshops.
		• Published three research papers, one patent, and won two national-level hackathons.
2	**Project Title**	Re-development of Property Tax Module of VMC Web Application
	Nature of Project & Funding (if any)	Consultancy work
	Organization	VMC, Vadodara
	Role	Team leader and Mentor
	Duration	03/04/2023 - 30/04/2024
	Outcome	• Successfully upgraded the Property Tax Module that improved user experience and streamlined tax calculation processes for VMC, Vadodara. • Three students from the project team got paid internships at VMC, Vadodara.
3	**Project Title**	Automated Detection and Classification of Cholelithiasis from Ultrasound Image using Explainable Deep Learning
	Nature of Project & Funding (if any)	Ph. D. Research Project
	Organization	Gujarat Technological University, Ahmedabad
	Role	Ph. D. Scholar
	Duration	07/06/2019- 06/12/2024
	Outcome	❖ Generated a new ultrasound image dataset for cholelithiasis by collecting abdominal ultrasound images from three different hospitals in India. ❖ Proposed modified Deep Convolutional Generative Adversarial Network (DCGAN) to produce synthetic ultrasound images. ❖ Proposed a cholelithiasis detection method using a detection transformer. ❖ Proposed a cholelithiasis classification method using a custom CNN. ❖ Proposed a hybrid visual explanation method for CNN to explain it's model prediction. ❖ Presented a thorough experimental analysis of the proposed methods to demonstrate their effectiveness in computer-assisted cholelithiasis diagnosis. ❖ Validated the visual explanation generated by the proposed hybrid visual explanation method by a team of radiologists to illustrate the enhanced trustworthiness of the prediction made by the proposed custom CNN model. ❖ Published three research papers, one book chapter and presented a poster in IEEE Signal Processing Society.
4	**Project Title**	Graph Based Approach for Mining Frequent Sequential Access Patterns of Web pages
	Nature of Project & Funding (if any)	M.Tech. Dissertation work
	Organization	Rajiv Gandhi proudyogiki vishwavidyalaya, Bhopal
	Role	Student
	Duration	1/1/2011 – 26/04/2012
	Outcome	Conducted research on mining frequent sequential access patterns of web pages and implemented a graph-based approach, to enhance web usage prediction.
5	**Project Title**	Medical Reimbursement System
	Nature of Project & Funding (if any)	B.E. Major Project
	Organization	Sri Satya Sai Institute of Science & Technology, Sehore
	Role	Student
	Duration	1/07/2008 - 31/05/2009
	Outcome	Developed a medical reimbursement application to streamline the claim process and ensure faster, accurate reimbursement for medical expenses for employee.

TECHNICAL PROFICIENCY

Language known	C, C++, Java, PHP, Python

Operating System	Windows, Linux
Data Base Known	MySQL, Firebase
Other	HTML, CSS, JavaScript, MS Office
Research Interest	Data Mining, Web Mining, Privacy on Social Media, Machine Learning, Deep Learning, Explainable Artificial Intelligence, AI for healthcare, Smart city using IOT and AI.
Subject Taught	Computer Programming & Utilization, Object Oriented Programming with C++, Object Oriented analysis with Design, Object Oriented Programming with Java, Advanced Java, Web Technology, Fundamental of Programming, Artificial Intelligence, Data Mining & Business Intelligence, Entrepreneurship, Computer organization and architecture, Design & Analysis of Algorithm, Information Communication Technology, Object Oriented Methodology and Design, Internet Technology, Principle of Management, Computer Algorithm, Advance Web Technology, Research Methodology, Computer network, Soft Computing, Machine Learning, Data Mining and Data Visualization

ACHIEVEMENTS

AWARDS & RECOGNITIONS

Name of the Award / Achievement	Awarding Institute/ Organization	International/ National/State	Awarded Date
Best PhD Thesis Award -2024	Gujarat Technological University, Ahmedabad	State	Shortlisted in best three
1st Winner of National Project Exhibition - TECH EXPO 2025	Parul University, Vadodara	National	8/02/2025
Academic and Research Performance Award -2024	Parul University, Vadodara	State	5/09/2024
Excellence Award for Recognizing Contribution to Industry-Academia Collaboration (Best College - PIET)	Industry Academia Community, Cloud Counselage Pvt. Ltd., Mumbai	National	8/06/2024
Mendeley Training	Elsevier	International	28/03/2024
Academic and Research Performance Award -2023	Parul University, Vadodara	State	5/09/2023
Award for Outstanding Contribution Towards Research project titled "AI, IoT and Digital Technologies for Future Sustainable Smart Cities"	The Royal Academy of Engineering, UK	International	30/04/2023
Academic and Research Performance Award -2022	Parul University, Vadodara	State	25/08/2022
3rd Winner of Police Hackathon 2022	MP Police and JNCT, Bhopal	National	30/09/2022
Young Researcher Award -2022	STEM Research Society	National	15/12/2022
SPOC of the Month	coursera	National	31/12/2022
Young Scientist Award	VDGood Technology Factory	International	29/08/2021
Academic and Research Performance Award -2021	Parul University, Vadodara	State	25/08/2021
Academic Performance Award -2017-18	Parul University, Vadodara	State	16/12/2017
Qualified CST- G level	CDAC Mumbai	National	22/03/2010
Qualified CST- G level	CDAC Mumbai	National	13/04/2011
Qualified GATE-CS with 86.88 Percentile	IIT, Roorkee	National	15/03/2009

FUND/GRANT RECEIVED

Title of Work	Funding Agency	International/ National/State	Fund Amount	Awarded Date
Research project titled "AI, IoT and Digital Technologies for Future Sustainable Smart Cities"	The Royal Academy of Engineering, UK	International	80,000 €	10/03/2021
IPR for Patent titled "IoT based Neonatal Caddy"	SSIP Gujarat	State	55000 ₹	29/12/2021
IPR for Patent titled "GPS Activated IoT based Optimised Center Pivot Irrigation	SSIP Gujarat	State	55000 ₹	29/12/2021

System for Low Energy Precision Valley"					

EXTRA-CURRICULAR ACHIEVEMENTS

- ❖ Awarded in district level Bal Vigyan congress competition of the School.
- ❖ Winner in College Level Carom Competition.
- ❖ Conference out from S.S.B. At AFSB Mysore.
- ❖ Featured in National new's for social contribution through different projects like "Clean my place".
- ❖ Volunteered in community service initiatives focused on education, healthcare, and SDG goals.
- ❖ Supported charity campaigns like blood donation drives, food drives.
- ❖ Awareness program for Smart City through multiple visits of more than 500 students at the City Command and control center at Vadodara and Dahod.

PUBLICATION DETAILS

Research Paper:

Title of the Research Paper	Name of the Journal	ISSN No.	Vol., Page No. & Year	Indexing	Impact Factor	Type of Author
Computer-aided Cholelithiasis Diagnosis using Explainable Convolutional Neural Network	Scientific Reports	2045-2322	Vol. 15, PP No. 1-26, 2025	SCI & Scopus & other popular database	4.3	First Author
Enhancing traffic control systems with live video analytics: Issues, challenges, opportunities, and recent problems	Information System and Smart City	2811-020X	Vol. 3, PP No. 1-12, 2023	Google Scholar & other popular database		First Author
Empirical evaluation of filter pruning methods for acceleration of convolutional neural network	Multimedia Tools and Applications	1573-7721	Vol. 83, PP No. 54699–54727, 2023	SCI Scopus, UGC-CARE & other popular database	3.6	First Author
Empirical Analysis of Deep Convolutional Generative Adversarial Network for Ultrasound Image Synthesis	The Open Biomedical Engineering Journal	1874-1207	Vol. 15, PP No. 71-77, 2021	Scopus, UGC-CARE & other popular database	1.6	First Author
NLP based Extraction of Relevant Resume using Machine Learning	International Journal of Innovative Technology and Exploring Engineering	2278-3075	Vol. 9, PP No. 13-17, 2020	SCI Scopus, UGC-CARE & other popular database		First Author
A Review On: Heart Disease Prediction using Data Mining	Journal of Emerging Technologies and Innovative Research	2349-5162	Vol. 6, PP No. 56-61 2019	Scopus, UGC-CARE & other popular database		Co-Author
An Augmented approach for prediction of cardiac attack using hybrid classification Techniques	Journal of Emerging Technologies and Innovative Research	2349-5162	Vol.6, PP No. 907-914, 2019	Scopus, UGC-CARE & other popular database		Co-Author
Frequent Item set Using Transaction Reduction Technique in Data Mining-A survey	International Journal for Scientific Research & Development	2321-0613	Vol.5 PP No. 1007-1010, 2017	Google Scholar & other popular database		Co-Author
Frequent Itemset Using Transaction Reduction Technique In Data Mining	International Education and Research Journal	2454-9916	Vol.3 PP No. 317-320, 2017	Google Scholar & other popular database		Co-Author
Secure Deduplication	International	0975-	Vol.137 PP	Google		Co-

Techniques: A Study	Journal of Computer Applications	8887	No. 41-43, 2016	Scholar & other popular database		Author
A Survey Based on Product Usability and Feature Fatigue Analysis Methods for Online Product	Journal of Engineering Computers & Applied Sciences	2319-5606	Vol.5 PP No. 53-57, 2016	Google Scholar & other popular database		Co-Author
Comparative Analyses of Different Association Rule Mining Algorithm	International Journal of Advanced Engineering Research and Technology	2348–8190	Vol.3 PP No. 1-5, 2016	Google Scholar & other popular database		Co-Author
Enhanced cAntMiner PB Algorithm for Induction of Classification Rules using Ant Colony Approach	IOSR Journal of Computer Engineering	2278-0661	Vol. 16, PP No. 63-72, 2014	Google Scholar & other popular database		Co-Author
Review on ant miners: Algorithms for classification rules extraction using ant colony approach	International Journal of Computer Applications	0975-8887	Vol. 86, PP No. 34-38, 2014	Google Scholar & other popular database	0.821	Co-Author
Improvement of Soundex algorithm for Indian language based on phonetic matching	International Journal of Computer Science, Engineering and Applications	2230–9616	Vol.4, PP No. 31-39, 2014	Google Scholar & other popular database		Co-Author
Analysis and comparative study on phonetic matching techniques	International Journal of Computer Applications	0975-8887	Vol. 87 PP No. 14-17, 2014	Google Scholar & other popular database	0.821	Co-Author
Pattern classification based on web usage mining using neural network technique	International journal of computer applications	0975-8887	Vol. 71 PP No. 13-17, 2013	Google Scholar & other popular database	0.821	Co-Author
Credit card fraud detection & prevention of fraud using genetic algorithm	International Journal of Soft Computing and Engineering	2231-2307	Vol. 2, PP No. 292-294, 2013	Google Scholar & other popular database		Co-Author
Preserving Privacy Technique for Knowledge Discovery	International Journal of Science and Research	2319-7064	Vol. 2, PP No. 186-190, 2013	Google Scholar & other popular database		Co-Author
Graph based approach for mining frequent sequential access patterns of web pages	International Journal of Computer Applications	0975-8887	Vol. 40, PP No. 33-37, 2012	Google Scholar & other popular database	0.821	First Author
Matlab implementation of Echo Cancellation in Telephone line	International Journal of Emerging Technology and Advanced Engineering	2250-2459	Vol. 2, PP No. 411-413, 2012	Google Scholar & other popular database		Co-Author
Mathematical Comparison of Important Speech Recovery Methods in Communication Networks	International Journal of Emerging Trends & Technology in Computer Science	2278-6856	Vol. 1, PP No. 37-44, 2012	Google Scholar & other popular database		Co-Author
Introduction to Integrating Web Mining With Neural Network	International Journal of Computer Science and	2249-9555	Vol. 2, PP No. 1166-1170,	Google Scholar & other		Co-Author

	Information Technology & Security		2012	popular database		
Digital image Watermarking Using DCT and DWT: A survey	ADIT Journal Of Engineering	0973 3663	Vol. 9, PP No. 1-6, 2012	Google Scholar & other popular database		Co-Author

Chapter in Books:

Title of the Chapter	Title of The book	Publisher	ISBN No.	Page No. & Year	Indexing	Type of Author
An Overview of Explainable AI Methods, Forms and Frameworks	Explainable AI: Foundations, Methodologies and Applications	Springer	978-3-031-12807-3	pp. 43-59, 2022	Scopus & other popular database	First Author
Computational Intelligence in Web Mining	Innovative Trends in Computational Intelligence	Springer	978-3-030-78284-9	pp. 197-215, 2021	Scopus & other popular database	First Author
Three-Layer Multimodal Biometric Fusion Using SIFT and SURF Descriptors for Improved Accuracy of Authentication of Human Identity	Innovative Trends in Computational Intelligence	Springer	978-3-030-78284-9	pp. 119-224, 2021	Scopus & other popular database	First Author

Research Paper in Conference Proceedings:

Title of the Research Paper	Name of the Conference	Name of the Publisher & ISSN/ISBN No.	Organizer Institute & Date of event	Page No. & Year	Indexing	Type of Author
Emerging Innovations in Deep Learning for Video DeepFake Detection: A Comprehensive Review	4th International Conference on Sentiment Analysis and Deep Learning - 2025	IEEE Xplore, ISBN:	Far Western University Bhimdatta, Nepal, 18/02/2025 - 20/02/2025	pp. 1242 - 1246, 2025	Scopus & other popular database	Co-Author
Course Explorer: A Recommendation System for Online Education	Parul University International Conference on Engineering and Technology -2024	IEEE Xplore, ISBN:979-8-3503-6974-8	Parul University, Vadodara, 03/05/2024 - 04/05/2024	pp. 1-6, 2024	Scopus & other popular database	Co-Author
A modified-YOLO based vehicle-pedestrian detection model for improved urban mobility	Parul University International Conference on Engineering and Technology -2023	AIP Conference Proceedings, ISSN: 1551-7616	Parul University, Vadodara, 05/05/2023 - 06/05/2023	pp. 040004, 2024	Scopus & other popular database	Co-Author
Comparison of generative adversarial networks for medical image generation	Parul University International Conference on Engineering and Technology -2023	AIP Conference Proceedings, ISSN: 1551-7616	Parul University, Vadodara, 05/05/2023 - 06/05/2023	pp.050018, 2024	Scopus & other popular database	Co-Author
Comparative study of visual explanation methods for convolution neural network	Parul University International Conference on Engineering and Technology -2023	AIP Conference Proceedings, ISSN: 1551-7616	Parul University, Vadodara, 05/05/2023 - 06/05/2023	pp.050017, 2024	Scopus & other popular database	Co-Author
Role of Telemedicine in Healthcare Sector for Betterment of	7th International conference on Soft Computing:	Springer Lecture Notes in	University Institute of Technology,	pp. 925-935,	Scopus & other popular	Co-Author

Smart City	Theories and Applications	Networks and Systems, ISSN: 2367-3389	Himachal Pradesh, 16/12/2022 - 8/12/2022	2023	database	
Convolutional Neural Networks based Liver Tumor Classification	2022 International Conference on Augmented Intelligence and Sustainable Systems	IEEE Xplore, ISBN:978-1-6654-8962-1	CARE College of Engineering, Thayanur, Tamil Nadu, 24/11/2022 - 26/11/2022	pp. 171-177, 2023	Scopus & other popular database	Co-Author
White Blood Cell Image Generation using Deep Convolutional Generative Adversarial Network	2022 International Conference on Augmented Intelligence and Sustainable Systems	IEEE Xplore, ISBN:978-1-6654-8962-1	CARE College of Engineering, Thayanur, Tamil Nadu, 24/11/2022 - 26/11/2022	pp. 129-134, 2023	Scopus & other popular database	Co-Author
Comparative Analysis of Fake News Identification Using Machine Learning Methods	4th International Conference on Data, Engineering and Applications	Springer Lecture Notes in Electrical Engineering, ISBN:978-981-97-0037-0	Oriental Institute of Science & Technology, Bhopal, 23/12/2022 - 24/12/2022	pp. 305-320, 2024	Scopus & other popular database	Co-Author
Alzheimer Disease Classification Using Transfer Learning	2021 5th International Conference on Computing Methodologies and Communication	IEEE Xplore, ISBN: 978-1-6654-0360-3	Surya Engineering College, Erode, 8/04/2021 - 10/04/2021	pp. 1503-1508, 2021	Scopus & other popular database	Co-Author
Chronic Kidney Disease Stage Identification in HIV Infected Patients using Machine Learning	2021 5th International Conference on Computing Methodologies and Communication	IEEE Xplore, ISBN: 978-1-6654-0360-3	Surya Engineering College, Erode, 8/04/2021 - 10/04/2021	pp. 1509-1514, 2021	Scopus & other popular database	Co-Author
A Review On: Heart Disease Prediction using Data Mining	Parul University International Conference on Engineering & Technology 2019	Journal of Emerging Technologies and Innovative Research ISSN:2349-5162	Parul University, Vadodara, 24/05/2019 - 25/05/2019	PP No. 56-61 2019	Scopus, UGC-CARE & other popular database	Co-Author
Weather forecasting using artificial neural network	2018 Second International Conference on Inventive Communication and Computational Technologies	IEEE Xplore, ISBN: 978-1-5386-1974-2	Ranganathan Engineering College, Coimbatore, 20/04/2018 - 21/04/2018	pp. 1757-1761, 2018	Scopus & other popular database	Co-Author
Comparative Study on Data Mining Classification Algorithms for Predicting Road Traffic Accident Severity	2018 Second International Conference on Inventive Communication and Computational Technologies	IEEE Xplore, ISBN: 978-1-5386-1974-2	Ranganathan Engineering College, Coimbatore, 20/04/2018 - 21/04/2018	pp. 1655-1660, 2018	Google Scholar & other popular database	Co-Author
Identification of Key factors from Road Accident Data for injury Severity	1st Parul University International Conference on Engineering& Technology	McGraw Hill, ISBN: 978-93-84869-42-7 (printed)	Parul University, Vadodara, 16/2/2018 - 17/2/2018	pp. 27-29, 2015	Google Scholar & other popular database	Co-Author
Review Paper on Unification of OLAP	7th National Conference on	Excel India Publishers,	Parul Institute of Engineering	pp. 101-	Google Scholar &	Co-Author

and OLTP in a Single Database	emerging vistas of Technology in 21th Century	ISBN: 978-93-85777-46-2 (printed)	& Technology, Vadodara, 8/4/2016 - 9/4/2016	104, 2016	other popular database	
A Survey On Anonymization Method To Preserve Privacy Of Published Data Through Record Elimination	6th National Conference on emerging vistas of Technology in 21th Century	Excel India Publishers, ISBN: 978-93-84869-42-7 (printed)	Parul Institute of Technology, Vadodara, 3/4/2015 - 4/4/2015	pp. 93-95, 2015	Google Scholar & other popular database	Co-Author
Intrusions Detection in Multi - Tier Web Application using Double Guard System	International Conference On Corporate Governance: Contemporary Issues & Challenges in Indian Economic Environment	ICGS 2014 Proceeding	Gujarat Technological University, Ahmedabad, 14/03/2014 - 15/03/2014	pp. 61, 2014	Google Scholar & other popular database	Co-Author
Multimedia questions and answering using web data mining	International Conference on Information Communication and Embedded Systems 2014	IEEE Xplore, ISBN : 978-1-4799-3834-6	S.A. Engineering College, Chennai, 27/02/2014 - 28/02/2014	pp. 1-4, 2014	Scopus, Google Scholar & other popular database	Co-Author

❖ Presented a Scientific Poster on Research work titled "**Automated Detection of Cholelithiasis from Ultrasound Image Using Detection Transformer**" in **IGNITE: Symposium on Ph.D. Forum and Poster Presentation**, organized by **IEEE Signal Society** at PDEU, Gandhinagar.

DETAILS OF COPYRIGHT/PATENT

Title of Copyright/Patent	Copyright/Patent Application Number	Year of Publication	Status	National/ International
An Indian Utility Patent on "System and Method for real-time Vital Sign Monitoring using IoT"	202421081781	2025	Published	National
A Copyright on "Vehicle Detection and Alert System for Non Parking Zones"	24653/2023-CO/SW	2023	Published	National
An Indian Utility Patent titled "An IoT based Neonatal Caddy"	202221000306	2022	Published	National
An Indian Utility Patent titled "GPS Activated IoT based Optimised Center Pivot Irrigation System for Low Energy Precision Valley"	202221000436	2022	Published	National
An Indian Industrial Design Patent titled "Mammography Screening Machine for Breast Cancer"	347980-001	2022	Published	National
An International (Australian) Innovation Patent on "Indigenous compact device for early diagnosis of neonatal hypothyroidism using Deep learning"	2021101430	2021	Granted	International
An Indian Utility Patent on "A Novel Electro Acupuncture Device for Covid Treatment"	202131022724	2021	Published	National
A Copyright on "Domestic Waste Collection and Distribution System"	454/2016-CO/SW	2016	Registered	National

DETAIL OF MEMBERSHIP OF PROFESSIONAL BODIES / SOCIETIES

Name of Professional Body/Society	Role Name	Membership No.	Date	Duration of Membership	National/ International

Computer Society of India (CSI)	Member	3132250002	30/01/2025	Lifetime	International
Institute of Electrical and Electronics Engineers (IEEE)	Member	99415047	15/04/2024	1 year	International
International Association of Engineers (IAENG)	Member	325065	15/01/2023	Lifetime	International
STEM Research Society	Member	STEMRS/Member/2022/10/2204	07/10/2022	1 year	National
International Computer Science and Engineering Society (ICSES)	Member	4541	13/07/2019	Lifetime	International
Journal of Emerging Technologies and Innovative Research (JETIR)	Review Member	114661	26/04/2019	Lifetime	International

INVITED LECTURES / RESOURCE PERSON/ REVIEWER IN SEMINARS/ CONFERENCES

Name of the Event	Role Name	Organizer/ Institute	Date and Duration	International National / State / University level
One Day International Conference Sustainable Growth Through Wisdom : Bridging IKS and Multidisciplinary Practices for Viksit Bharat	Keynote Speaker	Hexagon Research Academy	25/05/2025 1 day	International
Expert Session on Web Mining for Extracting Patterns from Web Pages Concepts, Case Studies, Applications, and Challenges	Expert	Computer Engineering Department, Government Engineering College, Dahod	21/04/2025 1 day	State
International Conference on Computational Intelligence, Emerging Technologies, and Smart Systems (ICCIETSS 2025)	Reviewer	School of Engineering, RK University, Rajkot	28/03/2025 - 29/03/2025 2 days	International
3-days workshop on Integrating AI in Teaching and Research	Expert	IT Department of Parul Institute of Engineering & Technology, Parul University, Vadodara	27/01/2025 - 29/01/2025 3 days	University
Research Seminar on "Explainable AI Methods and Framework for Interpreting Black Box Deep Learning Models"	Expert	IT Department of Parul Institute of Engineering & Technology, Parul University, Vadodara	18/01/2025 1 day	University
workshop titled "Interactive Data Analytics with Power BI"	Expert speaker	IT Department of Parul Institute of Engineering & Technology, Parul University, Vadodara	12/02/2024 - 13/02/2024 2 days	University
Vadodara Toycathon 2023	Jury Member	Parul University, Vadodara and SSIP Gujarat	26/06/2023 - 27/06/2023 2 days	State
Three-days Value Added Course on "Deep Dive in Data Structure"	Expert	IT Department of Parul Institute of Engineering & Technology, Parul University, Vadodara	03/01/2023 - 05/01/2023 3 days	University
4th Parul University International Conference on Engineering& Technology (PiCET-2022)	Program Committee Member	Parul University, Vadodara	21/05/2022 - 22/02/2022 2 days	International
4th International Conference on Futuristic Trends in Networks and Computing Technologies (FTNCT-2021)	Reviewer/Member of the Technical Program Committee	, Institute of Technology, Nirma University, Ahemdabad	10/12/2021 - 11/12/2021 2 days	International

Event	Role	Organized At	Date	Level
3rd International Conference on Data, Engineering, and Applications (IDEA-2021)	Program Committee Member	RGPV & SIRT, Bhopal	11/06/2021 - 12/06/2021 2 days	International
Toycathon, 2021	Primary evaluator	Ministry of Education's Innovation Cell and AICTE	18/1/2021 - 7/2/2021 3 weeks	National
PU Digital Hackathon 2020 - Hackoverflow	Jury Member	Parul University, Vadodara	18/09/2020 - 19/09/2020 2 days	National
Hackathon Crime & Security -2019	Volunteering & Coordinator	Vadodara Rural Police and Parul University, Vadodara	12/09/2019 - 13/09/2019 2 days	National
2nd Parul University International Conference on Engineering& Technology (PiCET-2019): Smart Engineering	Paper Subreviewer	Parul University, Vadodara	24/05/2019 - 25/05/2019 2 days	International
International Conference on Data Sciences, Security and Applications (ICDSSA-2019)	Paper Subreviewer	Bharati Vidyapeeth's College of Engineering, Delhi	07/03/2019 - 08/03/2019 2 days	International
1st Parul University International Conference on Engineering& Technology (PiCET-2018)	Paper Subreviewer	Parul University, Vadodara	16/02/2018 - 17/02/2018 2 days	International
1st International Conference on Data, Engineering and Applications 2017 (IDEA-2k17)	Program Committee Member	RGPV & SIRT, Bhopal	28/10/2017 - 29/10/2017 2 days	International
7th National Conference on emerging vistas of Technology in 21th Century in Green Computing (NCEVT-2016)	Organizing Committee Member	Parul University, Vadodara	08/04/2016 - 09/04/2016 2 days	National

MAJOR EVENTS ORGANIZED

Event	Role	Date of Event	Organized At
6th National Conference on emerging vistas of Technology in 21th Century	Organizing Committee Member	3rd –4th April 2015	Parul Institute of Engineering and Technology, Vadodara
7th National Conference on emerging vistas of Technology in 21th Century	Organizing Committee Member	8th –9th April 2016	Parul Institute of Engineering and Technology, Vadodara
1st Parul University International Conference on Engineering& Technology (PiCET-2018)	Organizing Committee Member	16th –17th February 2018	Parul Institute of Engineering and Technology Parul University, Vadodara
GUJCOST sponsored one week workshop on "Data Science: Application and Practices in Python"	Coordinator	17th –22th December 2018	I.T Department Parul Institute of Engineering and Technology Parul University, Vadodara
2nd Parul University International Conference on Engineering& Technology (PiCET-2019): Smart Engineering	Organizing Committee Member	24th –25th May 2019	Parul Institute of Engineering and Technology Parul University, Vadodara
Hackathon : Crime and Security 2019"	Coordinator	12th – 13th September 2019	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Webinar on "Data Science and Data visualization using Google Data Studio"	Coordinator	16th May 2020	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Webinar on "Data Science and Data visualization using Google Data Studio"	Moderator	16th May 2020	Faculty of Engineering & Technology - PIET, Parul University, Vadodara

Webinar on "Image Processing using MATLAB"	Moderator	19th February 2021	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
One day Virtual workshop on "Data Analysis and Data Visualization"	Coordinator & Resource Person	17th December 2021	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Webinar on "Embedded Systems"	Moderator	24th December 2021	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Workshop titled "Advanced JavaScript Frameworks"	Coordinator	25th February 2022	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
One day Virtual workshop on "Artificial Intelligence in Smart City Development: Recent Trends and Future Prospective"	Coordinator	4th March 2022	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
One day Virtual workshop on "Enhancing Mobile Application Security using Blockchain Technology"	Coordinator	3rd June 2022	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Webinar titled "Data Visualization using Power BI"	Moderator	15th July 2022	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Webinar titled "Infosys Springboard briefing on Certification courses"	Moderator	10th August 2022	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
One day workshop on "Exploring MATLAB for ANN and Fuzzy Logic"	Coordinator	29th July 2022	L&T – S&L Vadodara
Value Added Course on Deep Dive in Data Structures	Coordinator & Resource Person	3rd - 5th January 2023	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
One day Virtual workshop on "Road Traffic data analytics using Machine learning Techniques"	Coordinator	28th January 2023	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Two Day's Workshop on Interactive Data Analytics with Power BI	Coordinator	12th - 13th February 2024	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Parul University International Conference on Engineering and Technology -2024	Organizing Committee Member	2nd - 3rd May 2024	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Pre-conference Workshop on Leveraging LLM and RAG for Advanced Text Processing	Coordinator	2nd May 2024	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Workshop on Everyday Data handling with Power BI	Coordinator	3rd - 4th September 2024	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Workshop on Future Scope of Generative AI and LLM	Coordinator	22nd March 2025	Faculty of Engineering & Technology - PIET, Parul University, Vadodara
Short-Term Training Programme "SmartTech Fusion: A Deep Dive into IoT and Cloud Integration"	Coordinator	5th – 9th May 2025	Faculty of Engineering & Technology - PIET, Parul University, Vadodara

Detail of Faculty Development Program attended

Sr. No.	Title	Duration	Organized By
1	Digital System & Pedagogy Overview	13th-17th November 2013	IEEE & IIT Gandhinagar
2	E-Content Development & Delivery	8th-12th October 2018	UEduCon Services Pvt. Ltd. and Parul University, Vadodara
3	Advanced Concepts of Outcomes-based Education	3rd-8th August 2020	Inpods and Parul University, Vadodara
4	Online FDP on "Data Sciences"	7th-11th September 2020	AICTE Training and Learning (ATAL) Academy & NIT Andhra

Sr. No.	Title		Duration	Organized By
				Pradesh
5	Online FDP on "Citation Styles and Reference Lists"		21st – 23rd June 2021	Mendeley and Department of Data Sciences, Siva Sivani Institute of Management, Secunderabad, Telangana
6	Online FDP on "A Blend of Internet of Things, Cyber Security & Blockchain and Applications		23rd -27th August 2021	AICTE Training and Learning (ATAL) Academy & NIT Silchar
7	Online FDP on "Introductory Data Science and Deep Learning		16th-20th September 2021	AICTE Training and Learning (ATAL) Academy & International Institute of Information Technology - Naya Raipur.
8	5 Day's Online International Level Faculty Development Program on Data Science using Machine Learning		2nd -6th January 2023	Pravara Rural Engineering College, Loni in Collaboration with ExcelR
9	Three-Day Faculty Development Programme on Citation & Reference Management for Scholarly Writing		26th -28th February 2024	NSB Bangalore in collaboration with Mendeley, Netherlands
10	Training on SOAR (Strategic Outcome for Academic Results)		13th – 15th June 2024	Parul University, Vadodara
11	Fundamentals of Machine Learning - A 5-day Faculty Development Program		20th -24th December, 2024	Electronics & ICT Academy, C-DAC Hyderabad
12	Faculty Development Program on Amazon Web Services (AWS)		10th January 2025	Rishabh Software, Vadodara
13	2-week Teacher's Training Program on NEP 2020		3rd-12th March 2025	MSU, Vadodara
14	Two -Day FDP on Unleashing the Power of Microsoft Azure		12th – 13th May 2025	Rishabh Software, Vadodara

Detail of Short Term Training Program attended

Sr. No.	Title	Duration	Organized By
1	Cloud Computing: Revolutionary Trends in IT	23rd-28th December 2013	C.S.E./I.T./ MCA Dept., Parul Institute of Engineering & Technology, Vadodara
2	Internet of Things	12th-16th December 2016	C.S.E./I.T. Dept., Parul Institute of Engineering & Technology, Vadodara
3	Modern Trends in Image Processing in Medical Application	21st-25th September 2020	EC Department, V.V.P. Engineering College, Rajkot
4	Artificial Intelligence: Techniques and Applications	5th-9th April 2021	GUJCOST and Computer Engineering Department, SVIT, Vasad
5	Machine Learning and Data Science	20th-24th April 2021	Department of computer science and Engineering and Information technology, GHRIBM, Jalgaon
6	Latest trends in Remote Sensing & GIS	25th-29th July 2022	Department of Electronics & Communication of V.V.P. Engineering College, Rajkot.
7	Research Analysis and Evaluation Techniques	26th-30th December 2022	Department of Computer Engineering, Marwadi University, Rajkot
8	Training Program on Strategic Outcome for Academic Results	13th-15th June 2024	CHRD, Parul University, Vadodara
9	2-week Teacher's Training Program on NEP 2020	3rd-12th March 2025	MS University Baroda

Detail of Workshop attended

Sr. No.	Title	Duration	Organized By
1	Workshop on Future Scope of Generative AI and LLM	22nd March 2025	Faculty of Engineering & Technology - PIET, Parul University, Vadodara

2	Two days' Workshop on "Hands on session on Business Analytics using Power BI and Robotic Process Automation using Power BI Automate"	5th-6th January 2024	EC Department Parul Institute of Engineering and Technology Parul University, Vadodara
3	Training on "Use of ChatGpt in Teaching Learning"	4th May 2023	Information Communication & Technology Cell, Parul University, Vadodara
4	Designing and Modeling of IOT, AI, & ML Systems	1st-5th August 2022	AICTE, ATAL Academy, Arm Education and STMicroelectronics
5	Data Visualization Using Power BI	15th July 2022	Cloud Counselage Pvt. Ltd. and Parul Institute of Engineering & Technology
6	Python for Data Science	28th-30th June 2019	Computer Engineering Department, SCET, Surat
7	GUJCOST sponsored one week workshop on "Data Science: Application and Practices in Python"	17th-22th December, 2018	I.T Department Parul Institute of Engineering and Technology Parul University, Vadodara
8	NPTEL Workshop	8th April 2017	IIT MADRAS & CHARUSAT Changa
9	Effective Utilization of IEEE Database	3rd February 2017	Central Library, Parul University,Vadodara
10	Introduction to Windows Communication Foundation	4th May 2013	CSE Dept., Parul Institute of Technology
11	Ant Colony Optimization (ACO) and its Applications	27th April 2013	CSE Dept., Parul Institute of Technology
12	One Day Workshop On Data Mining	11th April 2013	Parul Institute of Engineering & Technology
13	Network Simulation with Cisco Packet Tracer	16th March 2013	CSE Dept., Parul Institute of Technology
14	Systems security and Auditing using Windows Server 2008 and Windows Client Vista / 7	23rd February 2013	CSE Dept., Parul Institute of Technology
15	Oracle Concepts and Data Storage through Linux OS (Only Practical Session)	25th January 2013	CSE Dept., Parul Institute of Technology
16	Basics of Research Methodology	1st September 2012	Parul Institute of Engineering & Technology

Detail of Seminar attended

Sr. No.	Title	Duration	Organized By
1	Deep learning: Applications and Challenges in healthcare system	14th August 2021	PP Savani University, Surat
2	Road map to write Technical Research Paper	3rd May2021	RNGPIT, Bardoli, Gujarat
3	Computational Thinking with MATLAB	31st August 2019	DesignTech, Pune
4	Research Methodology for Engineers	11th May 2019	Civil Dept., Parul Institute of Technology, and Centre of Research for Development, Parul University.
5	Data Mining	22nd September 2013	CSE Dept., Parul Institute of Technology
6	Web services Applications with ASP.Net	24th August 2013	CSE Dept., Parul Institute of Technology

Detail of Global MOOC Certification Completed

Sr. No.	Course Title	Course Completion Date	MOOC Platform
1	Internet of Things and AI Cloud	30th June 2024	Coursera
2	Internet of Things Foundation Certification	31st May2023	Infosys Springboard

Detail of Dissertation Guided

Sr. No.	Student Name	Thesis Title	Year
1	Kaushani Makwana	Deepfake detection using various deep learning techniques	2024-25
2	Patel Shivangi Bhikhubhai	Fake post analysis on social network using Explainable Artificial Intelligence	2022-23
3	Pandya Dwiti Vipulkumar	An Adaptive Generative Adversarial Network for Medical Image Classification	2022-23
4	Keshali Pathak	Classification of liver tumor using medical imaging based on machine learning technique	2021-22
5	Heta H. Acharya	Alzheimer Disease Classification using Transfer Learning	2020-21
6	Asfakahemad Y. Darveshwala	Chronic Kidney Disease Prediction in HIV Patient using Machine Learning	2020-21
7	Nirali Bhaliya	NLP Based Resume Parser using Machine Learning	2019-20
8	Yash Shukla	Data Mining for Predicting the heart disease	2018-19
9	Tadesse Kebede	Mining Road Accident Data for injury Severity	2017-18
10	Dires Negash Fente	Weather Forecasting Using Artificial Neural Network	2017-18
11	Sefali Patel	Frequent Item set Mining Using Transaction Reduction Technique	2016-17
12	Radia Vruti Satish	Optimization of Secure Deduplication System Over Cloud	2015-16
13	Chauhan Jinal Suresh Chandra	Hybrid Recommendation system for consumer data	2015-16
14	Patel Hiral Nileshbhai	Image Inpainting Technique For Removal Of Object Using Wavelet Transform	2015-16
15	Patel Niral	Web Content Mining Using Noise Removing	2015-16
16	Nirali Patel	Online Product Usability Evaluation Based on Review Mining and Feature Fatigue Analysis	2014-15
17	Aneri Thakor	Self-Adaptive Semantic Focused Crawler Using Metadata For Mining Service Information	2014-15
18	Padwal Satindrakumar G.	An Efficient Eclat Algorithm For Association Rule Mining	2014-15
19	Patel Shivani H.	Privacy Preservation In Web Data	2014-15
20	Rima Shah	Improvement Of Soundex Algorithm For Indian Language Based On Phonetic Matching	2013-14
21	Safeya Rajpiplawala	Enhanced cAntMinerPB Algorithm for Induction of Classification Rules	2013-14
22	Bavarva Bhaskar D.	Multimedia Answer Generation Based On Question Answer Classification Technique	2013-14
23	Romil.V.Patel	Pattern Classification based on Web Usage mining using Neural Network Techniques	2012-13
24	Rinky D. Patel	Credit Card Fraud Detection & Prevention of fraud using Genetic Algorithm	2012-13
25	Amar Puwar	Digital Image Watermarking using DCT	2012-13
26	Binal Patel	Intrusions Detection in Multitier Web Application using Double Guard System	2012-13
27	Darshan Patel	Preserving Privacy in Classification Algorithm using Data Anonymization for Knowledge Discovery	2012-13
28	Hiren J. Kadodia	User Specific Search Ranking Technique	2012-13

Detail of Project Guided

Sr. No.	Student Name	Project Title	Year
1	Nidhi Patel, Jinal Solanki, Rushi soni, Jenil	Deep learning based Stenography	2024-25

	zalavadiya		
2	Kevin faldu, Krishi Kapadia, Jenil patel, Nidhish Rajpurohit	CNG leakage detection using IOT	2024-25
3	Rupapara Purveshkumar Sanjaybhai, Pagedar Maitreyee Kishorkumar, Patil Vivek Mahadev, Varia Shivam Manishkumar	Sliding Door and Window Automation using IOT	2023-24
4	Mahida yashrajsinh vanrajsinh Sindha, Md juniyad iqbalbhai, Vyas aryan jasmin, Lahute heet bhupendrabhai	Foliage Health - A new Life to your plants	2023-24
5	Parth patel, Chaitanya pradip arekar, Vankar yashkumar, Vankar nikunjkumar bharatbhai	Simplifying Complain Resolution	2023-24
6	Panchal kunjesh tejaskumar, Shaikh mohamed shahil Faheem, Sumit patel, Sharma gautam chitranjan	Online Classroom Attendance System	2023-24
7	Parmar samruddhi tejas, Nisarg soni, Bhavesh pandita, Prajapati bhavinkumar narendrabhai	Central Library Access Management & Automated Catalog System	2023-24
8	Bachhav vaibhavi kiran, Shah khushi natal, Lad krupaben kishorbhai	Vital Sign Assessment using IOT	2023-24
9	Radadiya achyut prafulbhai, Baljit singh, Kamlesh suthar, Shetti sneha	Online Event Scheduling and End to End Execution	2023-24
10	Panchal divyeshkumar satishbhai	Metal Smart Extractors From Dustbin	2023-24
11	Sandhya Nimbark, Princy Tripathi, Smit Jaiswal, Harsh Katariya	Creating shared value	2021-22
12	Choudhary ravindra kanaram, Dholariya mukund rajeshbhai, Bharadva yash kantilal	Smart traffic management and AI based penalty system	2021-22
13	Mann Patel, Mitesh Patel, Nikhil Patel, Ravi Patel	Parking on Click	2020-21
14	Henil Jariwala, Nish Kamli, Vatsal Mehta, Jainik Patel	Efficient Chatbot Designing	2020-21
15	Tarpara Ajay H., Undhad Divyesh Rank Yash	Docsol (Document Solution)	2019-20
16	Abhishek Agarwal, Rajkumar Patel Khushali Mehta, Avisha patel	Bus Attendance System	2019-20
17	Rathod Meet Sureshbhai, Vadaliya Kavan Nitinbhai, Vaghasiya Akashkumar Dayalal	Clean my place	2018-19
18	Mohammed Amil Siddiqui, Ramesh Shamji Virda, Ramiz Raja Miyan Mahamma	SCHOOL MIS USING RFID	2018-19
19	Tandel Nirali Bipinbhai, Parmar Sagar, Vekariya Hardikkumar Jaysukhbhai	Centralized System Monitoring with Decentralized Version Control	2017-18
20	Patel Meetkumar Kamleshbhai, Patel Ayush Mukeshkumar, Sharma Bhumi Nayanbhai, Pandya Dhruv Bhavikkumar	Smart Governance	2017-18
21	Rohilla Shubham Rajendrakumar, Yagnik Naigeil Chirag, Sheth Abhee Rupenkumar	Recognition Of Text Using Different NLP Techniques	2017-18
22	Virani Arjavkumar Manjibhai, Mistry Kishankumar Dipakbhai, Panchal Divyang prakashchandra, Variya Chintan Dhanjibhai	Billing And Tracking Using Radio-Frequency Identification(RFID)	2016-17
23	Patel Aeshaben Ashvinkumar, Ramoliya Kesha Kantilal, Zandawala Harshil Mahendrakumar	Online Project Report Printing System	2016-17
24	Neha Gadhvi, Bhavin Parekh	"SENSATION"- Helping Hand For Physically Challenged	2015-16
25	Priti Parmar, Sneha	Domestic Waste Collection And Distribution System	2014-15
26	Jeet Dholakia, Maulik Rawal	A cloud based platform for mobile data collection	2013-14

I hereby declare that all information mentioned above is true and correct to the best of my knowledge and belief.

Yours sincerely,

Dr. Dheeraj Kumar Singh