# **BIO-DATA**



1.	Name			Dr. Shubhangi Liladhar Vaikole								
2.	Designation			Professor and Head of Information Technology Department								
3.		ial Addre	ess	B204, Swastik Apartment, Opposite Bhoomi Colossa, Sector								
				19, Airoli, Navi Mumbai-400708								
4.	Date of b	irth		03 <sup>rd</sup> J	uly 198	31						
5.	Total Ex	perience		21 Years								
i.	Teaching			21 Years								
ii.	Industria	al		Nil								
6.	Qualifications											
	Exam			Institution/ Branch/Spe			ecialization 1		Percer	tage/CGPI		
	Passed			Unive	University Computer							
	Ph.D.	2016						Engineering		Awarded		
	M.E.	2008			Iniversi				inginee			72.59
	B.E.	2003			Iniversi	ty	Computer Engine		Inginee	ring	ng 67.03	
		al Qualif		:								
7.	Employn	nent Reco			,							
	Institution						Year			Designation		
					(Fro				To)			
				rigues	01/	/11/20	22 To	Till da	ite	Professor and Head of		
	Institute of Technology,							Department				
	Datta Meghe College			e of 11/01/2017 To 31/10/20			022	Associate Professor		Professor		
	Engineering, Airoli											
	Datta Meghe Colleg			e of 04/07/2005 To 10/01/20			017	Assistant Professor		Professor		
	Engineering, Airoli											
	<i>C C</i>											
	Konkan Gyanpeeth Colle			ege of 01/10/2003 To 03/07/2005			005	Lecturer				
	Enginee	ring, Karj	at									
8.	Undergraduate / Postgraduate Teaching Experience and Subjects Taught											
	Subjects Taught at UG level											
	Sr.No. Name of Subje							Semester				
	1 Machine						VII					
	2 Artificial Int			<u> </u>			VI					
			al Intelligence and Soft Computing				VII					
	4 Soft Computi			<u>C</u>			VIII					
	5 Computer V						VIII					
	6 Image Process					VII						
				rk and Fuzzy System VIII					VIII			
	Subject					T						
	Sr.No. Name of Subject							Semester				
				and Interpretation				I				
	2	Ü			Analysis and Design			I				
	3	J				II						
	4	Advance							II			
9.		<b>Experie</b>										
10.		<b>Funding</b>						1				T
	Sr.No.	Name of		Addr	ress	Prod	uct		sulting		sulting	Period
	Company			Servi			ice Fees					
		NIL										

	n Grants:	1	1 .	T	1
Sr.No.	Name of Funding	Type of	Amount	Year	Name of Research
	Organization	Grant	(Rs.)		Project
1	FCRIT	ILRF	2 Lakh	2023	Fault Diagnosis of
					Gearbox and Roller
					Element Bearing
					Using Dimension
					Analysis and
					Support Vector
					Machines with
					Motor Load
					Variation
<b>Technica</b>	al Collaboration / La	ab Funding w	th Industries	•	•

Sr.No.	Name of the Funding Organization	Type of Support	Amount (Rs.)	Year			
NII.							

## 11. Professional Societies Fellowship / Membership:

1. Member of "Computer Society of India(CSI)"

#### 12. Achievements / Awards / Position:

- 1. Secured **2<sup>nd</sup> position** in Innovative and Best Teaching Pedagogy Competition held by IEEE Bombay section with TECT on December 6, 2023.
- 2. Reviewer of Elsevier Journal.
- 3. Best Paper award in ICTEAM-2022.
- 4. Awarded **1st place** along with the prize money of 60,000/- as an Outstanding innovator in Researcher category for my research work on "Recognition of Human Mental Stress Using Machine Learning Paradigms" at PRISM 2021 on December 14, 2021.
- 5. Best Paper award in ICATE-2019 and ICATE-2018.
- 6. Member of Reviewer Committee
- 7. **Recognized P.G. Guide** in University of Mumbai
- 8. Recognized Ph.D. Guide in University of Mumbai

#### 13. **Projects guided in UG/PG level:** 56 at UG level and 12 at PG level

#### Research Scholar Guidance (Ph. D.): 02 completed+ 01 in progress

- 1. Mrs. Megha Gupta **awarded PhD Degree in June 2003**. Title was "Recognition of Human Mental Stress using Machine Learning Paradigms".
- 2. Mrs. Vaishali Shinde awarded PhD Degree in May 2024 on Clinical Risk Prediction from Heterogeneous Data with Deep Learning Approach.
- 3. Mrs. Prajkta Bhangale working on Performance Evaluation and Enhancement of Cryptographic Techniques for Geospatial Data.

#### 14. Short Term Training Programmes attended:

- 1. "Introduction to Machine Learning", 8 weeks at NPTEL- Grabbed Elite Certificate
- 2. "Restructuring and strengthening of autonomy through NEP perspective" ATAL FDP at FCRCE.
- 3. "UHV", 5 days at AICTE
- 4. "Refresher Part 1-UHV", 5 days at AICTE
- "Outcome based Education" 20 days at DYPCOE, Pune- Grabbed Advanced learner badges

- 6. "IFDP on OE4BW(PO7)", 31 days at DYPCOE, Pune- Grabbed Advanced learner badges
- 7. "IFDP on OE4BW(PO11)", 45 days at DYPCOE, Pune
- 8. "Emerging Trends in Computer Engineering", 4 days at DMCE, Airoli
- 9. "Moddle Management System", 5 days at DMCE, Airoli
- 10. "Innovative Trends in Engineering And Technology", 5 days at SLRTCOE, Mumbai
- 11. "Outcome based Education" 10 days at DMCE, Airoli
- 12. "Digital Transformation in Teaching Learning Process", 5 days at FRCRCE, Bandra
- 13. "Pedagogy of Teaching and Tools on E-Content Development for Effective Teaching", 10 days at Christopher Arts & Science College, Tamilnadu

## 15. List of Journal Papers Published

- 1. Prathmesh Baviskar, Joshua Dabhi, Tejal Anavekar, Sujal Raina, Shubhangi Vaikole," Smart Surveillance System for Intrusion Detection and Environmental Hazard Monitoring", Journal of Engineering Trends and Novel Research, Volume 2 Issue 4, ISSN: 2984-9276 PaperLink: <a href="https://rjpn.org/jetnr/papers/JETNR2404011.pdf">https://rjpn.org/jetnr/papers/JETNR2404011.pdf</a>, April-2024
- 2. Prajkta Bhangale, Shubhangi Vaikole," Chaotic Map Based Raster data encryption for Geospatial Data", International Journal of Safety and Security Engineering, Volume 13, Number 6, December 2023, ISSN: 2041-9031 (Print); 2041-904X (Online), DOI: https://doi.org/10.18280/ijsse.130615
- 3. Megha V. Gupta, **Shubhangi L. Vaikole**," A Parallel Fusion RNN-LSTM Approach to Classify Mental Stress using EEG Data", International Journal of Engineering Trends and Technology, Volume 70 Issue 10, 285-297, October 2022.
- **4.** Sachin M. Shinde, Mohit Diwan, Ramendra Singh Niranjan, **Shubhangi Vaikole**, R. Ramesh, "Geometric optimization of compressor head fin body for effective heat transfer by finite element method", International Journal on Interactive Design and Manufacturing (IJIDeM), Springer, October 2022
- 5. Megha V. Gupta, **Shubhangi Vaikole**, Ankit D. Oza , Amisha Patel , Diana Petronela Burduhos-Nergis, Dumitru Doru Burduhos-Nergis," Audio-Visual Stress Classification Using Cascaded RNN-LSTM Networks", Bioengineering, September 2022, 9(10), 510
- **6.** Mrs. Megha V. Gupta, **Dr. Shubhangi Vaikole**, "Detection of Human Mental Stress Using Speech Signals" International Journal of Special Education (IJSE), ISSN 0827-3383, Vol. 37 No. 3 (2022)
- **7.** Mrs. Megha V. Gupta, **Dr. Shubhangi Vaikole**, "Audio Signal Based Stress Recognition System using AI and Machine Learning" Journal of Algebric Statistics, Volume 13, No.2 ,, p. 1731 1740 ISSN: 1309-3452
- **8. Dr. Shubhangi Vaikole**, Yash Changare, "Algorithmic Trading System", Journal of Algebraic Statistics Volume 13, No. 2, 2022, p. 1805 1810 ISSN: 1309-3452

- **9. Dr. Shubhangi Vaikole**, Makrand Bhalerao, Parth Nimbalkat, Soham Moghe, "Classification of Traffic Signs Using Convolutional Neural Networks", Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1764 1769, ISSN: 1309-3452
- **10. Dr. Shubhangi Vaikole**, Makrand Bhalerao, Parth Nimbalkat, Soham Moghe, "Classification of Traffic Signs Using Convolutional Neural Networks", Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1764 1769, ISSN: 1309-3452
- **11. Dr.Shubhangi Vaikole**, Smaran Ummadishetty, Anushka Vaidya, ChaitanyaKeerthi, "Mental Health Diagnostic system using Machine Learning Model,", Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1751 1756, ISSN: 1309-3452.
- **12. Dr. Shubhangi Vaikole**, "Spatial clustering with dynamic hops for data routing in WSN for enhanced QoS metrics "Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1715 1730, ISSN: 1309-3452.
- **13. Dr.Shubhangi Vaikole**," Segmentation of Moving Object captured using Moving Camera" Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1757 1763, ISSN: 1309-3452.
- **14.** Prajkta Bhangale, **Dr. Shubhangi Vaikole**," Study on Approaches for Geospatial Data Security", Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1165 1169, ISSN: 1309-3452
- **15. Dr. Shubhangi Vaikole**, "Parametric Optimization of Manufacturing of Aluminum Die Casting Hot Die Steel Inserts "Journal of Algebraic Statistics, Volume 13, No. 2, 2022, p. 1143 1155, ISSN: 1309-3452.
- **16. Dr.S.L.Vaikole** ,Pankaj Mehesre," Enhancing The Resolution And Perceptual Quality of Images By Super Resolution", Shodh Sarita, April-June 2020, Volume 7,Issue 26, pg.no.112-117, ISSN: 2348-2397
- **17. Dr. S.L.Vaikole**, Vaishali Malpe, , "A Comprehensive Study on Cyberbullying Detection Using Machine Learning Approach", International Journal of Future Generation Communication and Networking, April 2020, Volume 13, Issue 1,ISSN:2233-7857
- **18. Dr. S. L. Vaikole**, B. G. Chhapkhanewala, , "Fabric Fault Detection using Local Derivative Pattern and Gabor Filter Approach", International Journal of Innovative Technology and Exploring Engineering (IJITEE), January 2018, Volume 7, Issue 4,ISSN: 2278-3075
- **19. Dr. S. Vaikole**, S. Mulajkar, A. More, P. Jayaswal, S. Dhas"Stress Detection through Speech analysis using Machine Learning", International Journal on Creative Research and Thoughts, May 2020, Volume 8, Issue 5, ISSN:2320-28820
- **20. Dr.S.L.Vaikole**, Abhiishek Thakur, Prathamesh Ghate, Rutwik Guntoorkar, "Block chain based supply chain system", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, May 2020, Volume 6, Issue 3, ISSN:2456-3307
- **21. Dr. Shubhangi Vaikole**, Suvarna Gaikwad, Parth Dode, Shubham Chhipa, , "Smart Bike System", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, May 2020, Volume 6, Issue 3, ISSN:2456-3307
- **22. Dr.S.L.Vaikole**,Suyash Gupte,Chhand Patil,Saloni Patil, "Voice Imitator",International Journal of Scientific Research in Engineering & Management, May 2021, Volume 5, Issue 5,ISSN:2582-3930

- **23. Dr.S.L.Vaikole** ,Mahesh Sawant, Keval Senghani, Pragati Singh, "Speech to Lip Generation",International Journal of Creative Research Thoughts (IJCRT), May 2021, Volume 9, Issue 5,ISSN: 2320-2882
- **24. Dr.S.L.Vaikole**, Pranav Chaudhari, Sakshi Khandhare,mayuri Dahake,"ED-TOOLS( Tool to make education easier)"International Journal of Research and Analytical Reviews, may 2021, Volume 8,Issue 2,eISSn:2348-1269,pISSN:2349-5138
- **25. Dr.S.L.Vaikole**, Sangita Holkar, Dr.S.D.Sawarkar, Audio and Video Toxic Comments Detection and Classification, International Journal of Engineering Research & Technology (IJERT), December 2020, Volume 9, Issue 12, ISSN:2278-0181
- **26. Shubhangi Vaikole**, Sneha Deshmukh, , Dr. Sudhir Sawarkar," Automatic Segmentation of Moving Object in video sequences",International Journal of Engineering Technology, Science and Research,October 2016, Volume 3, Issue 10,ISSN 2394 3386
- **27. S.L.Vaikole**,Dr.S.D.Sawarkar, 'Automatic segmentation of moving object in video sequences',International Journal of Applied Information Systems (IJAIS)-ISSN 2249-0868) 2016
- **28. S.L.Vaikole**, Dr.S.D.Sawarkar, 'Moving Object Segmentation with Camera in Motion Using GMEC and Change Detection Method' Journal of Multimedia Processing and Technologies, Volume 6, Number 2, June 2015
- **29.** S.L.Vaikole, Dr.S.D.Sawarkar, 'Object Segmentation with Camera in Motion' International Journal of Innovations and Advancement in Computer Science IJIACS, ISSN 2347 8616 Volume 4, Special Issue September 2015
- **30. S.L.Vaikole**, 'Segmentation Using Global Motion Estimation and Compensation', Journal of Computer Engineering (IOSR-JCE)2016
- **31. S.L.Vaikole**, 'Automatic Segmentation and Tracking of Moving Objects using Object Tracker', Journal of Computer Engineering (IOSR-JCE)2016
- **32. S.L.Vaikole**, 'Moving object Segmentation and Tracking of Moving Objects using Object Tracker', IJETSR, 2016
- **33. S.L.Vaikole**,Dr.S.D.Sawarkar,'Automatic Segmentation of Moving Object in video sequences',IJETMAS,2016
- **S.L.Vaikole**, 'Segmentation of moving object in video using background registration and GMEC', IOSR-JCE, 2016
- **35. S.L.Vaikole** 'Web Scale Information Extraction from Unstructured and Ungrammatical data sources', IJCSEITR, ISSN-2249-7943, Vol 3, Edition Apr 2014.
- **36. S.L.Vaikole**, 'Layers crf a model to build more accurate IDS',IJERT,ISSn-2278-0181,Vol 1,Issue 8, Oct 2012.

## 16. List of Papers Published in National and International Conferences

1. Yash Pratapwar, Abhinav GAjksoh,Mitthun Kutthully,Mikhael Uzagare, Shubhangi Vaikole," SUMMEET- ML based minutes of meeting genberation tool", International Conference on Recent Trends in Multidisciplinary

- Research and Innovations ICMIR-2023 at Lokmanya Tilak College of Engineering (LTCOE)- 17 & 18 March 2023.
- 2. S.L.Vaikole, 'An automated physician tool',ICATE,Navi Mumbai,7-8 April 2017.
- 3. S.L.Vaikole, 'Drug repurposing using data mining',ICATE,Navi Mumbai 2017
- 4. S.L.Vaikole, Dr.S.D.Sawarkar, 'Segmentation of moving object with uncovered background, temporary poses and gmob', ELSEVIER, Proceedings of international Conference on communication, Computing and Virtualization (ICCCV) 2016, Volume 79, Pages 299304, journal ISSN:1877-0509, 2016
- 5. S.L. Vaikole, 'Automatic Segmentation of Moving Object in Video using GMEC', IEEE Xplorer digital library, SCOPES- 2016, Odisha, 3-5 Oct. 2016
- 6. S.L.Vaikole, 'Automatic Segmentation and Tracking of Moving Objects using Object Tracker', ICIRESM 2016, Delhi, 9 oct. 2016
- 7. S.L.Vaikole, 'Automatic Segmentation of Moving Object in video Sequences', ICIRESM 2016, Delhi, 9 oct. 2016
- 8. S.L.Vaikole, Dr.S.D.Sawarkar, 'Segmentation of Moving Object in Video with Camera in Motion', IEEE Xplorer digital library, ICNTE 2015,9-10 Jan. 2015, Page(s):1 5, Print ISBN:978-1-4799-7261-6
- 9. S.L.Vaikole, 'Moving Object Segmentation Using GMEC and Change Detection Method ICDCST 2015, June 8-10, 2015, Colombo, Shrilanka
- 10. S.L. Vaikole, 'Object Segmentation with Camera in Motion', ESM-15,20 Sept 2015, New Delhi.
- 11. S.L. Vaikole, 'Methodologies for privacy preserving in data mining', ICETTA-2013,6-7 March 2013, Karjat
- 12. S.L.Vaikole, 'Intrusion detection system in cloud computing environment ICACACT-2012,10-11 Aug 2012,Mumbai
- 13. S.L.Vaikole, 'Learned templates for speech recognition',ICAC-2008,21-22 Feb 2008, Chikhali
- 14. S.L. Vaikole, 'Image compression by using kohenon self oranising network', ICAC-2008, 21-22 Feb 2008, Chikhali
- 15. S.L. Vaikole, 'Minutia feature extraction from fingerprint images',ICDEF-2008,11-13 Aug.2008,Coimbatore
- 16. S.L. Vaikole, 'Moving Object Segmentation in Video',NCATE,Navi Mumbai, 2016
- 17. S.L. Vaikole, 'Moving Object Segmentation Using GMEC', NCATE, Navi Mumbai, 2016
- 18. S.L.Vaikole, 'Currency recognition using mobile application',NCATE,Navi Mumbai, 2016
- 19. S.L.Vaikole, 'Transform based method for classification of various Meningioma subtype images', TACIT-2012, 2<sup>nd</sup> Sept 2012, Nagpur
- 20. S.L.Vaikole, 'Build more accurate IDS using layered architecture and conditional random fields', TACIT-2012, 2<sup>nd</sup> Sept 2012, Nagpur
- 21. S.L.Vaikole, 'Feature Extraction in Fingerprint', NCCCE-2008, Nanded, 8-9 Feb. 2008
- 22. S.L. Vaikole, 'Tomography', NCTIAC-2007, 28-29 Dec 2007, Navi Mumbai
- 23. S.L. Vaikole, 'Voice over-IP Security', NCTIAC-2007, 28-29 Dec 2007, Navi Mumbai
- 24. S.L.Vaikole, 'Use of HMM to solve canonical problems', NCTIAC-2007, 28-29 Dec 2007, Navi Mumbai
- 25. S.L. Vaikole 'Distributed Continuous Quality Assurance', NCTIAC-2007, 28-29 Dec 2007, Navi Mumbai

- 1. Machine Learning- Computer Engineering, Mumbai University, Techneo Publication, 2020, ISBN: 978-81-941546-7-8
- 2. Machine Learning-Computer Engineering, Savitribai Phule University, Pune, Techneo Publication, 2021, ISBN:978-93-91472-99-3
- 3. Machine learning- M.SC.IT, IDOL, University of Mumbai, 2021
- 4. Artificial Intelligence and Data Science-Information Technology, Mumbai University, Techneo Publication, 2021, ISBN:978-93-91472-03-0
- 5. Artificial Intelligence and Automation-Mechanical Engineering, Mumbai University, Techneo Publication, 2021, ISBN:978-93-5583-021-0
- 6. Artificial Intelligence and Machine Learning- Mechanical Engineering, Savitribai Phule University, Pune, Techneo Publication, 2021, ISBN:078-93-5583-088-3
- 7. Machine Learning- R19-Computer Engineering, Mumbai University, Techneo Publication, 2022, ISBN: 978-93-5583-079-1
- **8.** Machine Learning- R19- Electronics Engineering, Mumbai University, Techneo Publication, 2023
- **9.** Deep Learning- R19-Computer Engineering and Electronics & Computer Science, Mumbai University, Techneo Publication.2023

#### 18. Invited Lectures in FDP/ STTP:

- 1. Invited as resource person for "Application of ML in Electrical Engineering" during 2<sup>nd</sup>- 6<sup>th</sup> January 2024 in **ISTE approved FDP** at FCRIT.
- 2. Conducted Session on "Application of AI/ML in Mechanical Engineering" during FDP at DMCE, Airoli
- 3. Conducted Session on "PO7 and its Attainment" in **AICTE-ISTE approved FDP** at DYPCOE, Akurdi, Pune

## 19. International Conference Technical Program Committee Member / Reviewer:

- 1. Reviewer for Pattern Recognition, Elsevier Journal
- 2. Reviewer for IEEE-ICAST 2022 conference, KJSIEIT, Sion
- 3. Session chair for ICAC3-2021, ICAC3-2019, FRCRCE, Bandra.
- 4. Reviewer for CSCITA-2020, SFIT, Borivali
- 5. Session chair and Reviewer for ICATE-2019, ICATE-2018, ICATE-2017, Datta Meghe COE, Airoli
- 6. Session chair and Reviewer for ICETCC-2017, Sarswati COE, Kharghar
- 7. Reviewer and Track chair for ICNTE 2023.
- 8. Reviewer for ICUBA 2024

#### 20. Patents:

- 1. **Published patent** on "A MEMS based EED device for mental stress detection using Artificial Intelligence" in August 2021. Official Journal of patent office, Issue: 36/2021, 03/09/21, Application no. 202121037968A
- 2. **German Patent Granted** on "A system for developing a novel 3D printed bionic prosthetic leg". Application number: 202022103187.8 dated 4<sup>th</sup> June 2022.
- 3. **German Patent Granted** on "A Novel IoT based cost effective Microprocessor controlled Infant warmer." Application number: 202022104445.7 dated 3<sup>rd</sup> August 2022.

#### Convrights:

- 1. **Granted copyright** for software module on "Video segmentation with camera in Motion" in December 2021. ROC no. SW-15302/2022
- 2. **Granted copyright** for software module on "Speech to Lip Movement Generation" in August 2022. ROC no. SW-15772/2022

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