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Manesh B. Kokare, Ph.D. (IIT Kharagpur)

(BOYSCAST Post-Doctoral Fellow, University of California Santa Barbara, USA)

1. Full Name: Dr. Manesh Babanrao Kokare

2. Date of Birth: August 11, 1972

3. <u>Designation:</u> Professor and Director

4. Academic Record:

Institute/ University	Degree	Academic	Field of Specialization
		Year	
University of California Santa	BOYSCAST Post-	August 2011-	Retinal Image Analysis/
Barbara, USA	Doctoral Fellow	Sept 2012	Retrieval
Indian Institute of Technology	Ph.D.	July 2004	Content-Based Image Retrieval
Kharagpur, INDIA.			_
Swami Ramanand Teerth	ME (Electronics)	May 1999	Electronics Specialization in
Marathwada University			Computer Technology
Nanded, INDIA			
Marathwada University,	BE (Electronics)	May 1993	Electronics
Aurangabad, INDIA			
Board of Tech Exam Mumbai,	Diploma in Industrial	May 1990	Industrial Electronics
INDIA.	Electronics Engineering		

5. <u>Professional Appointments/Employment:</u>

University/College	Designation	Period		Teaching/Research/
		From	То	Industry Experience
SGGS Institute of	Director	2 nd May 2023	Till date	
Engineering and	Professor	November 9,	Till date	
Technology		2013		
Vishnupuri, Nanded	Associate Professor	November 9,	November 8,	
(MS), India		2008	2013	
	Assistant Professor	9thNov 2005	November 8,	27 years 8 Months
			2008	
	Senior Lecturer	November 9,	November 8,	
		2000	2005	
	Lecturer	12 th Oct 1995	November 8,	
			2000	

Dynamix Dairy Ltd,	Junior Engineer	16 th Aug 1995, to 2 nd Oct 1995.	
Baramati			
Desai Electronics Pvt	Junior Engineer	January 21, 1995, to August 12,	1 5 years
Ltd, Pune		1995	1.5 years
Superb Product Pvt	Trainee Engineer	April 1, 1994, to January 20,	
Ltd. Pune		1995	

6. Administrative Experience

University /	Position held	Period		Total Experience
College		From	То	
SGGS	Director	2 nd May 2023	Till Date	Two Months
Institute of	Dean Academics	March 30,	2 nd May 2023	1 Year 2 months
Engineering &		2022	,	
Technology,	Dean Finance, Quality Assurance,	October 2,	March 29,	1 Year 5 Months
Vishnupuri,	and Resource Mobilization	2020	2022	
Nanded (MS)	Head of the Department	July 16, 2018	July 30, 2022	Two years
	Dean Research and Development	Aug 2016	July 2018	Two years
	Coordinator of the Center of	Sept 2013	Till date	Eight years 11
	Excellence in Signal and Image			months
	Processing			
	Professor In-Charge of	Sept 2012	Sept 2013	One year
	Innovation Laboratory			
	Controller of Examinations	June 2008	June 2011	Three years
	Hostel Warden	July 1999	July 2001	Two years
		To	tal Experience	20 Years

7. Membership of Scientific and Professional Societies:

- IEEE Member (No.80467316)
- Member IEEE Signal Processing Society
- Member IEEE Computer Society
- Life Member of Indian Society for Technical Education (ISTE) (LM-48043)
- Life Member of the Institution of Electronics and Telecommunication Engineers (M-183827).
- Life Member of System Society of India.

8. Research Productivity:

- Total Research Papers published: 120
- Cumulative Citation Index: 3134
- H- Index: 23
- i10- Index: 46
- Funding fetched: INR 720 Lakhs

- Cumulative Impact factor: 80.00 +
- Research projects completed: 4
- Conference Organized: 2
- STTP/Workshops Organized: 12
- Invited talks in STTP/ Workshop/

9. Honors and Awards:

- <u>2020-21</u>: Honored with National Level "AICTE Visvesvaraya Best Teacher Award" for the year 2020-21 from All India Council for Technical Education (AICTE.) New Delhi in recognition of outstanding work in technical education. The award carries a Certificate, Memento, and Cash prize of Rs. 25,000/-. The award was conferred by the Hon'ble Minister of Education, Shri Ramesh Pokhriyal 'Nishank,' Government of India, on September 15, 2020 (Engineers Day).
- <u>2013-14</u>: "Best Teacher Award" for 2013-14, from Swami Ramanand Teerth Marathwada University, Nanded, to recognize excellent work in the educational field. The award carries a Certificate, University Memento, and Cash prize of Rs. 10,000/-
- <u>2010-11:</u> Received prestigious "BOYSCAST Fellowship" for the year 2010-11 from the Department of Science and Technology, Government of India, to carry out Advanced Research work at the University of California, Santa Barbara, the USA, from Aug 2011- Sept 2012. (Fellowship amount US\$ 39,000/-)
- <u>2009</u>: "Best Achievements in Career" Awarded by Alumni of Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded, in Silver Jubilee Alumni Meet held 26th -27th December 2009.
- <u>2009</u>: "Best Paper Award" in National Conference on Signal and Image Processing organized jointly by the Institution of Engineering and Technology-UK (IET) and College of Engineering Pune (CoEP), 19-20th September 2009.
- 2007: Biography is published in "Who's Who in the World 2007".
- <u>2005-06</u>: Received prestigious National Level "AICTE Career Award for Young Teachers (CAYT)" of Rs. 10.5. Lakh for the year 2005-06, from All India Council for Technical Education (AICTE), New Delhi INDIA.
- <u>2004</u>: Recipient of "IAPR Travel Bursary Award of \$ 500" from International Association of Pattern Recognition, UK, for a Research paper presented at the International Conference on Pattern Recognition 2004, Cambridge U. K.
- <u>2004</u>: Recipient of "100% Financial Support from AICTE" to present a research paper in IEEE ICPR 2004 at Cambridge U.K.
- Working as a "Reviewer of Twenty International Journals" and published 120 papers in reputed international/national journals and conferences.
- <u>1990:</u> Received Rs. 100 as a scholarship for securing 2nd rank in polytechnic and 19th rank in Diploma in Maharashtra State.

10. No. of M. Tech Students Guided: 30

11. No. of Ph.D. Students Guided: (Details given in Appendix-A)

- Number of students who completed Ph.D.: 15
- Number of students in progress.: 6

12. <u>Teaching Areas/ Courses Prepared to Teach:</u>

At the undergraduate level:

- i. Feedback Control System
- ii. Network and Lines
- iii. Electronic Circuit Design
- iv. Digital Signal Processing
- v. Multimedia System

• At the postgraduate level:

- i. Computer Vision
- ii. Fuzzy Logic
- iii. Digital Image Processing
- iv. Multimedia System Applications
- v. Statistical Machine Learning

13. Research Publications: (Cumulative Impact Factor: 80.00 +) Refereed Journals:52

F43	M 171 DIZ D' IDNI CL " WT
[1]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Texture image retrieval using new rotated complex
	wavelet filters," IEEE Trans. Systems, Man, and Cybernetics-Part B. Vol.35, No.6, pp. 1168-1178, Dec 2005.
	(Impact Factor 6.22).
[2]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Rotation invariant texture image retrieval using rotated
	complex wavelet filters," IEEE Trans. On System, Man and Cybernetics Part-B., Vol. 36(6), pp.1273-1282, Dec
	2006. (Impact Factor 6.22).
[3]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Cosine-modulated wavelet packet-based texture
	features for content-based image retrieval," IETE Journal of Research, Vol. 51, No.6, pp. 477-483, Nov-Dec
	2005. (Impact Factor 1.030).
[4]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Texture image retrieval using rotated wavelet," Pattern
[.]	Recognition Letter, Vol. 28, pp.1240-1249, May 2007. (Impact Factor 3.255).
[5]	Manesh Kokare, B.N. Chatterji and P.K. Biswas, "Cosine-modulated wavelet-based texture features for
[6]	content-based image retrieval," Pattern Recognition Letter, Vol. 25 (4), pp. 391-398, March 2004. (Impact
	Factor 3.255).
[6]	Manesh Kokare, B.N. Chatterji, and P.K. Biswas, "A survey on current content-based image retrieval
[O]	methods," IETE Journal of Research, Vol.48, no.3&4, pp.261-271, May-Aug 2002. (Impact Factor 1.030).
[7]	Sushma Kejgir and Manesh Kokare , "Optimization of Bit Plane Combination for Efficient Digital Image
[7]	Watermarking," International Journal of Computer Science and Information Security, Vol. 4, Aug 2009. (Impact
	Factor 0.553).
FO1	
[8]	Lenina Birgale and Manesh Kokare, "A Survey on Iris Recognition," ICFAI. University Journal of
FOZ	Electrical and Electronics Engineering, Vol.2, No. 4, pp. 7-26, October 2009.
[9]	M. S. Shiradhonkar and Manesh Kokare , "Document Image Retrieval: An Overview," International
	Journal of Computer Applications, 1(7), pp. 128-133, Feb 2010.
[10]	Pushpa Patil, Manesh Kokare, "Relevance feedback in Content-based image retrieval: a Review," Journal
	of Applied Computer Science and Mathematics, Suceava, Romania, Issue No.8.Nov.2010.
[11]	M.S.Shirdhonkar and Manesh Kokare, "Discrimination between printed and handwritten text in the
	document," International Journal of Computer Application (Special Issue on Recent Trends in Image Processing and
	Pattern Recognition), pp. 131-134, 2010.
[12]	Lenina Birgale and Manesh Kokare, "Iris Recognition Without Iris Normalisation," Journal of Computer
	Science, vol.6, issue 9, pp. 1042-47,2010.
[13]	S D Bharkad and Manesh Kokare, "Sine Transform Based Finger Print Matching," International Journal of
	Power, Control, Signal and Computation (IJPCSC), Vol.II, 2010.
[14]	M. S. Shirdhonkar and Manesh Kokare, "Offline Handwritten Signature Retrieval using Curvelet
. ,	Transforms," IJCSI. International Journal of Computer Science Issues, 8 (8), 2010.
[15]	M. S. Shirdhonkar and Manesh Kokare , "Offline Handwritten Signature Identification Using Rotated
[13]	Complex Wavelet Filters," IJCSI. International Journal of Computer Science Issues, Vol. 8, Issue 1, pp. 478-482,
	January 2011
[16]	Sangita D. Bharkad, and Manesh Kokare , "Performance Evaluation of Distance Metrics: Application to
[16]	Fingerprint Recognition," International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), 25 (6):
	pp.777-806, 2011. (Impact Factor: 1.375).
[4.7]	Pushpa Patil and Manesh Kokare , "Semantic image retrieval using relevance feedback," <i>International Journal</i>
[17]	
E4.03	of Web & Semantic Technology, 2(4), pp.139-148, 2011.
[18]	Sangita D. Bharkad and Manesh Kokare ," Hartley Transform Based Fingerprint Matching," <i>Journal of</i>
	Information Processing, 8 (1): pp.85-100, March 2012. (Impact Factor: 0.75).
[19]	Sangita D. Bharkad and Manesh Kokare, "Rotated Wavelet Filters Based Fingerprint Recognition,"
	Accepted for publication in International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), 26(3),
	May 2012. (Impact Factor: 1.375).
[20]	Lenina Birgale and Manesh Kokare, "Comparison of Color and Texture for Iris Recognition,"
	International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), 26(3), pp, May 2012. (Impact
	Factor: 1.375).
[21]	Lenina Birgale and Manesh Kokare, "Iris Recognition using Ridglets," Int Journal of Korea Information
. ,	Processing Society (KIPS), April 2012. (Impact Factor: 1.76).

[22]	Sushma Kejgir and Manesh Kokare, "Lifting wavelet transform with singular value decomposition for
[0.0]	robust digital image watermarking," International Journal of Computer Applications, 39(18), pp.10-18, Feb 2012.
[23]	M. S. Shirdhonkar and Manesh Kokare , "Handwritten document image retrieval," <i>International Journal of Modeling and Optimization</i> , 2(6), pp.693-696, Dec 2012.
[24]	Pushpa Patil and Manesh Kokare, "Interactive semantic image retrieval," Journal of Information Processing
[]	Systems, 9(3), pp.349-362, 2013.
[25]	Pushpa Patil and Manesh Kokare, "Composite Relevance Feedback for Image Retrieval," International
. ,	Journal of Computer and Information Engineering, 7(1), pp. 141-147, Oct 2013.
[26]	Sangita D. Bharkad and Manesh Kokare, "Modified FFT features for fingerprint matching," International
	Journal of Signal and Imaging Systems Engineering, 6(3), pp.150-157, 2013. (Impact Factor 1.4)
[27]	Sushma Kejgir and Manesh Kokare, "Robust multichannel colour image watermarking using lifting
	wavelet transform with singular value decomposition," <i>International Journal of Computational Science and</i>
[00]	Engineering, 9(4), pp.371-385, Jan 2014. Pushpa Patil and Manesh Kokare , "Efficient Texture Image Retrieval using Prims Algorithm with K-
[28]	Degree Nearest Neighbor Graph," International Journal of Imaging and Robotics, 13(2), pp.12-24, 2014
[29]	Sushma Kejgir and Manesh Kokare, "Semi-Blind Digital Image W atermarking Algorithm using Complex Number
	Principle Approach," Journal of Information Processing Systems, Sept 2015. (Impact Factor: 0.75).
[30]	M. S. Shirdhonkar and Manesh Kokare, "Automatic logo-based document image retrieval," International
[]	Journal of Knowledge-based and Intelligent Engineering Systems, 19(1), pp.27-33, Jan 2015.
[31]	Jayant Jagtap and Manesh Kokare, "Human age classification using facial skin aging features and artificial
	neural network," Cognitive Systems Research, 40 (2016), pp116.128, May 2016. (Impact Factor: 1.902).
[32]	Jayant Jagtap and Manesh Kokare, "Human age classification using appearance features and artificial neural
	network," International Journal of Biometrics, June 2016. (Impact Factor: 1.82)
[33]	Nilesh Bhosle and Manesh Kokare, "A Heuristic Optimization Approach for Semantic-based Image
[2.4]	Retrieval using Relevance Feedback," International Journal of Applied Pattern Recognition, June 2016.
[34]	Kamble, Ravi, Manesh Kokare , Girish Deshmukh, Fawnizu Azmadi Hussin, and Fabrice Mériaudeau. "Localization of Optic Disc and Fovea in Retinal Images using Intensity Based Line Scanning Analysis."
	Accepted for publications in <i>Computers in Biology and Medicine-Elsevier (2017)</i> . (Impact Factor: 1.836).
[35]	Sangita Bharkad and Manesh Kokare, "Fingerprint Matching Based on Dimension Reduced DCT Feature
[6.4]	Vectors," Journal of Information Processing Systems, Vol. 13, No.4, pp. 852-862, Aug 2017. (Impact factor: 1.3).
[36]	Sangita Bharkad and Manesh Kokare, "Rotation-invariant fingerprint matching using Radon and DCT,"
	<i>Sādhanā</i> , 42(12), pp.2025-2039, Dec 2012.
[37]	Jayant Jagtap and Manesh Kokare, "Human age classification via face images; a survey," International Journal
F2.03	of Applied Pattern Recognition, Vol.4 No.3, pp. 246-260, Sept 2017. (Impact Factor 0.344)
[38]	Jayant Jagtap and Manesh Kokare , "Local binary patterns and wrinkle analysis in combination with multi- class support vector machine for human age classification," <i>International Journal of Applied Pattern Recognition</i> ,
	4(1), pp.1-13, 2017.
[39]	Jayant Jagtap and Manesh Kokare , "Human Age Classification using Appearance and Facial Skin Aging
[6.1]	Features with Multi-class Support Vector Machine," International Journal of Biometrics (Inderscience), Vol. 11, pp.
	22-34, 2019. (Impact Factor: 1.82)
[40]	Prasanna Porwal, Samiksha Pachade, Ravi Kamble, Manesh Kokare ,
	Girish Deshmukh, Vivek Sahasrabuddhe, and Fabrice Meriaudeau, "Indian Diabetic Retinopathy Image
	Dataset (IDRiD): A Database for Diabetic Retinopathy Screening Research," Data — Open Access Journal of
[41]	Data in Science, Vol. 3(3), July 2018. Impact Factor: 3.5). Presence Portyal Semilysha Paghada Managh Kalara, Lyan Ciangarda, and Enbring Mariayday. "Patinal
[41]	Prasanna Porwal, Samiksha Pachade, Manesh Kokare , Luca Giancardo, and Fabrice Meriaudeau, "Retinal image analysis for disease screening through local tetra patterns," <i>Computer in Biology and Medicine</i> , 102(2018),
	pp. 200-210, Nov 2018. (Impact Factor: 2.86).
[42]	Arati Manjaramkar and Manesh Kokare , "Statistical geometrical features for microaneurysm detection,"
[]	Journal of Digital Imaging (Springer), Vol.31(2), 224-234. 2018. (Impact Factor: 3.697).
[//2]	Arati Manjaramkar and Manesh Kokare , "Connected component clustering-based hemorrhage detection
[43]	in color fundus images," <i>International Journal of Intelligent Engineering and Systems</i> , Vol.11(2), pp. 143-151, 2018.
	(Impact Factor: 1.03).
[44]	Nilesh Bosale and Manesh Kokare, "Random Forest-Based Active Learning for Content-Based Image
	Retrieval," International Journal of Intelligent Information and Database Systems, Vol 13 (1), pp. 72-88, 2020.
[45]	Prasanna Porwal, Samiksha Pachade, Manesh Kokare, Girish Deshmukh, Jaemin Son, Woong Bae,
	Lihong Liu, Jianzong Wang, Xinhui Liu, Liangxin Gao, TianBo Wu, Jing Xiao, Fengyan Wang, Baocai Yin,

	Yunzhi Wang, Gopichandh Danala, Linsheng He, Yoon Ho Choi, Yeong Chan Lee, Sang-Hyuk Jung, Zhongyu Li, Xiaodan Sui, Junyan Wu, Xiaolong Li, Ting Zhou, Janos Toth, Agnes Baran, Avinash Kori,								
	Sai Saketh Chennamsetty, Mohammed Safwan, Varghese Alex, Xingzheng Lyu, Li Cheng, Qinhao Chu,								
	Pengcheng Li, Xin Ji, Sanyuan Zhang, Yaxin Shen, Ling Dai, Oindrila Saha, Rachana Sathish, Tânia Melo,								
	Teresa Araújo, Balazs Harangi, Bin Sheng, Ruogu Fang, Debdoot Sheet, Andras Hajdu, Yuanjie Zheng,								
	Ana Maria Mendonça, Shaoting Zhang, Aurélio Campilho, Bin Zheng, Dinggang Shen, Luca Giancardo,								
	Gwenolé Quellec, Fabrice Mériaudeau, "IDRiD: Diabetic Retinopathy- Segmentation and Grading								
	Challenge," Medical Image Analysis, Vol. 59, pp.1-26, Jan 2020. (Impact Factor: 11.14).								
[46]	Samiksha Pachade, Prasanna Porwal, Manesh Kokare , Luca Giancardo, and Fabrice Meriaudeau, Retinal								
	vasculature segmentation and measurement framework for color fundus and SLO images," <i>Biocybernetics and</i>								
	Biomedical Engineering (Elsevier Journals),40(3), July-September 2020, pp. 865-900. (Impact Factor 2.51).								
[47]	Rupali Komatwar and Manesh Kokare, "Customized Convolutional Neural Networks with K-								
	Nearest Neighbor Classification System for Malware Categorization," Journal of Applied Security								
	Research, 16(1), pp.1-21, April 2020.								
[48]	Samiksha Pachade, Prasanna Porwal, Dhanshree Thulkar, Manesh Kokare, Girish Deshmukh, Vivek								
	Sahasrabuddhe, Luca Giancardo, Gwenolé Quellec, Fabrice Mériaudeau, "Retinal Fundus Multi-Disease								
	Image Dataset (RFMiD): A Dataset for Multi-Disease Detection Research," Data, Vol 6, No.2, p. 14, Feb.								
	2021, DOI: 10.3390/data602001 (Impact Factor 3.5)								
[49]	Samiksha Pachade, Prasanna Porwal, Manesh Kokare, Luca Giancardo, Fabrice Mériaudeau, "NENet:								
	Nested EfficientNet and adversarial learning for joint optic disc and cup segmentation," Medical Image								
5=03	Analysis, Vol.74, pp. Dec 2021.								
[50]	Sandesh Bhagat, Manesh Kokare, Vineet Haswani, Praful Hambarde, Ravi Kamble, "Eff-UNet++: A								
[54]	novel architecture for plant leaf segmentation and counting," Ecological Informatics, Vo.68, May 2022.								
[51]	Sachin Panchal and Manesh Kokare, "A Comprehensive Survey on the Detection of Diabetic								
	Retinopathy," IETE J. Res. 2022, https://doi.org/10.1080/03772063.2022.2138577, Nov 2022								
[52]	Sachin Panchal, Ankita Naik, Manesh Kokare, Samiksha Pachade, Rushikesh Naigaonkar, Prerana								
	Phadnis, and Archana Bhange, Retinal Fundus Multi-Disease Image Dataset (RFMiD) 2.0: A Dataset of								
	Frequently and Rarely Identified Diseases," 2023, 8, 29. https://doi.org/ 10.3390/data8020029.								

Papers Published in Conferences: (71)

[53]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Rotation invariant texture features using rotated complex						
[ee]	wavelet for content-based image retrieval," Proc. of IEEE International Conference on Image Processing (ICIP) 2004,						
	pp. 393-396, 24 th – 27 th Oct 2004, Singapore.						
[54]	Manesh Kokare, P.K. Biswas, and B.N. Chatterji, "Rotated complex wavelet-based texture features for						
. ,	content-based image retrieval," Proc. Of IEEE International Conference on Pattern Recognition (ICPR) 2004, pp.						
	652-655. 23 rd - 26 th Aug. 2004, Cambridge (UK).						
[55]	Manesh Kokare, B.N. Chatterji, and P.K. Biswas, "Rotated wavelet-based texture features for content-based						
	image retrieval," Proc. 5th International Conference on Advances in Pattern Recognition (ICAPR 2003), pp. 243-247,						
	10th –13th Dec 2003, Kolkata (INDIA).						
[56]	B.N. Chatterji, Manesh Kokare, A. Adhipathi Reddy, Rajib Kumar Jha, "Wavelets for content-based image						
	retrieval and digital watermarking for multimedia application," Proc. Fourth International Conference on						
	Information, Communications & Signal Processing -Fourth IEEE Pacific-Rim Conference On Multimedia (ICICS-PCM						
	<i>2003)</i> , pp. 812-816, 15 th -18 th December 2003, Singapore.						
[57]	Manesh Kokare, B.N. Chatterji and P.K. Biswas, "Comparison of similarity metrics for texture image						
	retrieval," Proc. IEEE TENCON Conference, pp. 571-575, 15th-17th Oct 2003, Bangalore.						
[58]	Manesh Kokare, B.N. Chatterji and P.K. Biswas, "Wavelet transform based texture features for content-						
	based image retrieval," Proc. 9th National Conference on Communications (NCC 2003), pp. 443-447, January 31-						
	February 2, 2003, Chennai (INDIA).						
[59]	Manesh Kokare, B.N. Chatterji, and P.K. Biswas, "M -band wavelet-based texture features for content-						
	based image retrieval," in Proc. of Indian Conference on Vision, Graphics and Image Processing (ICVGIP 2002), pp.173-						
	178, Dec 2002, Ahemadabad (INDIA).						
[60]	Manesh Kokare, B.N. Chatterji and P.K. Biswas, "Dimensionality reduction of tree-structured wavelet						
	transform texture features for content-based image retrieval," in Proc. Seventh International Conference on Control,						
	Automation, Robotics, and Vision (ICARCV 2002), Vol.3, pp. 1647-1652, 2nd-5th Dec 2002, Singapore.						

[61]	Mahagaonkar Renuka, Manesh Kokare , D. D. Doye, "Optimization of Weight Factors (α) for Binary Image Data Hiding," in Proc. Of National Conference on Electrical Engineering (NCEED), Vishakhapatnam, June 2005.
[62]	Lenina Birgale, Manesh Kokare , and Dhramapal Doye, "Colour and Texture Features for Content-Based Image Retrieval," IEEE International Conference on Computer Graphics, Imaging, and Visualisation, 26-29 July 2006, Sydney, Australia.
[63]	Swati Kamthekar, D. D. Doye, M. B. Kokare, "Sports Summarization Methods," Technical Symposium,
[2.4]	Government College of Engineering, Aurangabad, pp. 174-176, Jan 23-24, 2006.
[64]	Manesh Kokare, "CT image retrieval using wavelet transform," Proc. IEEE- International Conference on Signal and Image Processing, pp.344-347, Vol.1, 7-9 Dec 2006, Hubli, India.
[65]	S. G. Kejgir and Manesh Kokare , "A Wavelet-Based Good Fidelity Digital Image Watermarking using Subband Threshold Computing," <i>Proc. IEEE- Int. Conference on Signal and Image Processing</i> , pp.8-13, Vol.1, 7-9 December 2006, Hubli, India.
[66]	Manesh Kokare, "CT image retrieval using M-band wavelet transform," National Conference on Emerging
[**]	Trends in Signal Processing and Communication ETSPC, pp. 411- 415, Dec 27-29, 2007, M.A.E. Alandi, Pune, India.
[67]	Manesh Kokare, "CT image retrieval using Tree-Structured Cosine Modulated Wavelet Transform," <i>Proc. IEEE-International Conference on Digital Image Processing</i> , pp.159-162, 7-9 March 2009, Bangkok, Thailand.
[68]	Lenina Birgale and Manesh Kokare , "Iris Recognition Using Discrete Wavelet Transform," Proc. IEEE-International Conference on Digital Image Processing, pp.147-141, 7-9 March 2009, Bangkok, Thailand.
[69]	Rajeshree Rokade, Dharmapal Doye, and Manesh Kokare , "Hand Gesture Recognition by Thinning Method," Proc. IEEE- International Conference on Digital Image Processing, pp.284-287, 7-9 March 2009, Bangkok, Thailand.
[70]	Ulka S. Rokade, Dharmapal Doye, and Manesh Kokare , "Hand Gesture Recognition Using Object-Based Key Frame Selection," Proc. IEEE- International Conference on Digital Image Processing, pp.288-291, 7-9 March 2009, Bangkok, Thailand.
[71]	M.S.Shirdhonkar and Manesh Kokare, "Labeling of Signature in Scanned Document images" proceeding of
	National Seminar on Recent Trends in Image Processing and Pattern Recognition, held at Bidar, pp. 42-44, Feb.15-16, 2010.
[72]	M.S.Shirdhonkar and Manesh Kokare , "Offline Handwritten Signature Identification using Dual-Tree Complex Wavelet Transforms," proceeding of 4 th International Conference Computer Application in Electrical Engineering-Recent Advances, held at Indian Institute of Technology, Roorkee, pp.40. Feb. 2010.
[73]	Pushpa Patil, and Manesh Kokare, "Relevance feedback in image retrieval" Proceeding of national seminar on
57.43	recent trends in image processing and pattern recognition, Feb.15 16, 2010, pp. 37-41 Bidar (Karnataka).
[74]	Pushpa Patil, and Manesh Kokare , "Relevance feedback in Content-based image retrieval," Proceeding of 4 th International Conference Computer Application in Electrical Engineering-Recent Advances. Feb. 19 to 20, 2010, pp. 40, I.I.T. Roorkee.
[75]	S. G. Kejgir, M. R. Banswakar, and Manesh Kokare , "Robust Digital Image watermarking Using M-band
	Wavelet transform and Subband Threshold computing," <i>Int. Conference on Advances in Computing</i> , pp.371-374, February 21, 2008.
[76]	S. G. Kejgir, M. R. Banswakar, and Manesh Kokare , "Digital Image Watermarking: A Technical Review," Int. Conference on Emerging Technologies and Applications in Engg., Tech. And Sciences, pp.704-708, January 13, 2008.
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14. Foreign University Visit Details:

Sr. No	Name of Overseas University visited	Duration	The agency which sponsored the visit	Purpose of visit/ Brief objective of the work done	Achievement/Outcome
1	IEEE – ICIRD 2018 Thailand	May 11, 2018	IEEE – ICIRD 2018 Thailand	To deliver a keynote speech at IEEE – ICIRD 2018 Thailand	To share state-of-art research developments in Image Processing and Computer Vision internationally.
2	ISBI- 2018, Washington DC, USA.	March 31 to April 9, 2018	Institute	To conduct an online Challenge on Diabetic Retinopathy on "IDRiD."	Conducted an online Challenge on Diabetic Retinopathy on IDRiD, a database developed in CoE. This is accepted as an international standard database and shared globally on the CoE website. This will help to get wide recognition for the institute at the international level.
3	UTP Malaysia	1 st to August 7, 2016	Invited by UTP.	Joint Proposal and other collaborative Research Activities.	Prepared five proposals for international funding and Identified opportunities for student exchange for 2016-17.
4	NTU, Singapore	29th-30th Aug 2013	TEQIP.	To visit the Signal and Image Processing Laboratory	Got exposure to State-of-the-art Laboratory.
5	UTP, Malaysia	23rd-28th August 2013	TEQIP.	Attended short courses and signed MoU with UTP Malaysia.	Signed MoU with UTP for research collaboration.
6	University of California, USA.	August 15, 2011, To September 14, 2012	Department of S&T, Govt. of India	Post-Doctoral Research	Developed three New Algorithms in Diabetic Retinopathy
7	University of Iowa, USA.	August 19, 2012, To August 23, 2012	Department of S&T, Govt. of India	To interact with researchers in medical imaging	Delivered invited talk and got hands-on experience in capturing the fundus retinal images.
8	Singapore	February 27, 2010, To March 1, 2010	AICTE Career Award for Young Teachers	For presenting the research paper and chairing the session	Presented research paper in IEEE ICDIP 2010 and chaired one conference session.

9	Bangkok	March 7,	AICTE	For presenting	Presented research paper in IEEE
		2009, To	Career	a research	ICDIP 2009.
		March 9,	Award for	paper	
		2009	Young		
			Teachers		
10	University of	From	AICTE	Attending	Attended Workshop on BioImage
	California	January 21,	Career	Workshop	Processing.
	SB, USA.	2008, To	Award for		_
		January 23,	Young		
		2008	Teachers		
11	Cambridge	From	AICTE,	For the	Presented research paper at ICPR
	University	August 21,	New Delhi	presentation of	2004 conference. I also got the
	U.K.	2004, To		a Research	"Travel Bursary Award of \$500" for
		August 24,		paper in IEEE	the same paper from the
		2004.		ICPR 2004	International Association of Pattern
					Recognition.

15. Conference Activity/ Participation:

Sr.	Name of the Conference	Organizer/Location	Dates	
No.			From	To
1.	Seventh International Conference on Computer Vision and Image Processing	VNIT, Nagpur, 2022	November 4, 2022	November 6, 2022
2.	IConSIP2022:InternationalConferenceonSignalandInformationProcessing2022	COEP, Pune	August 25, 2022	August 27, 2022
3.	IEEE –ICIRD 2018 Thailand	IEEE –ICIRD 2018 Thailand	May 11, 2018	May 11, 2018
4.	IEEE ISBI- 2018	IEEE ISBI- 2018, Washington DC, USA	April 4, 2018	April 7, 2018
5.	IConSIP 2016	IITB, COE Pune, SGGS Nanded, and SVCoE Tirupati at Nanded	October 5, 2018	October 8, 2018
6.	TEQIP II: Best Policies and Practices	SPFU, IEQIP II, and SGGSIE&T Nanded	January 10, 2014	January 11, 2014
7.	IEEE International Conference on Digital Image Processing 2010	IEEE Computer Society, Singapore	February 27, 2010	March 1, 2010
8.	IEEE International Conference on Digital Image Processing 2009.	IEEE Computer Society, Bangkok, Thailand	March 7, 2009	March 9, 2009
9.	International Conference on Emerging Technologies and Applications in Engineering, Technology, and Sciences	Saurashtra University Rajkot	January 13, 2008	January 14, 2008
10.	IEEE International Conference on Signal and Image Processing 2006	BVB College Hubli, India	December 8, 2006	December 10, 2006
11.	IEEE International Conference on Pattern Recognition 2004.	The University of Surrey, Cambridge, U. K.	August 23, 2004	August 26, 2004

12.	International Conference on	Indian Statistical Institute,	December	
	Advances in Pattern Recognition	Kolkata, India	16, 2003	December
				18, 2003
13.	IEEE TENCON 2003	Indian Institute of Science,	October	October
		Bangalore, India	16, 2003	18, 2003
14.	NCC 2003	Indian Institute of	January	February
		Technology, Chennai, India	31, 2003	2, 2003
15.	ICVGIP 2002	Indian Research and Space	December	December
		Organization, Ahmadabad,	16, 2002	18, 2002
		India		

16. Short-Term Courses/ Workshop Participation:

Sr. No.	Name of the Program	Organized By	Sponsored by	Duration	Dates
1	Management Capacity Enhancement Programme	Indian Institute of Management (IIM), Udaipur	TEQIP-II	1 Week	4 th April- 9 th April 2016
2	AICTE sponsored Two Weeks Faculty Development Program on Multirate Signal Processing and Wavelets	SGGSIE&T Nanded	AICTE.	2 Weeks	June 29 to July 10, 2015
3	Mathematical and Statistical Foundation to Signal and Image Processing	SGGSIE&T Nanded	CoE-TEQIP II	Two weeks	28 th May to 6 th June 2015
4	Wavelets and their Application	SGGSIE&T Nanded	CoE- TEQIP- II	One Week	8 th -12 th Dec 2014
5	Three Days Workshops on Thermography	I Tech Solution Pune	TEQIP- II	Three Days	10 th -12 th Nov 2014
6	Three Days Workshops on "Training and Identification of Master Trainers and Educators on Outcome Based Accreditation Process and Parameters	SGGSIE&T Nanded	TEQIP-II	Three Days	21st_23rd March 2014
7	Winter School on Biometrics for Secure Authentication: Fundamentals and Advances	SGGSIE&T Nanded	TEQIP-II	One Week	23 rd - 27 th Dec 2013
8	Workshop on Biodesign	SGGSIE&T Nanded	TEQIP-II	Two Days	8th_9th Aug 2013
9	IETE Approved National Level One Week STTP on "Wavelets"	Sinhagad Institute of Technology and Science Narhe Pune	IETE.	One Week	13 th -18 th Dec 2012

10	International Workshop on Digital Image Video	IIT Madras	TEQIP	Two-Days	21 st -22 nd Dec 2012
11	Analytics IEEE National Level	S G G S Institute of	IEEE Const	Three-	8th -10th
11	Workshop on Wavelets and Applications	Engineering and Technology, Vishnupuri, Nanded	IEEE Signal Processing Chapter, Bombay Section	Days	June 2009
12	Capacity Building Program for World-Class Institutions	Sinhgad Institute of Engineering Lonavala	TEQIP.	Four Days	May 2008
13	International Workshop on Bioimage informatics, Biological Imaging, Computer Vision, and Data Mining.	The University of California, Santa Barbara, USA	AICTE	Three Days	17 th -18 th January 2008
14	Short Term Training Program on "Advanced Project Management Using MS-Project and Primavera	S G G S Institute of Engineering and Technology, Vishnupuri, Nanded	TEQIP.	Four Days	11 th -14 th Decembe r 2007
15	Staff development Programme on Advanced Digital Signal Processing	Sinhgad College of Engineering Pune	AICTE.	Two Weeks	3rd-13th Decembe r 2007
16	TEQIP Workshop on "Intellectual Property Rights"	S G G S Institute of Engineering and Technology, Vishnupuri, Nanded	TEQIP.	Two Days	13 th -14 th August 2006
17	AICTE Sponsored Two weeks Induction Programme on "New Concepts, Methods and advanced Techniques in Speech Processing, Image Processing, and Pattern recognition."	S G G S Institute of Engineering and Technology, Vishnupuri, Nanded	AICTE.	Two Week	15 th -26 th May 2006
18	TEQIP Short-Term Training Programme on "Recent Trend in Signal and Image Processing."	S G G S Institute of Engineering and Technology, Vishnupuri, Nanded.	TEQIP.	Three Days	16 th -18 th January 2006.
19	TEQIP. Management Development Programme on "Personal Effectiveness for Institutional Development."	Welingkar's MDP, Mumbai	TEQIP.	Three Days	23 rd to January 25 2006
20	QIP STTP on "Image and Video Processing for Multimedia Applications".	E & ECE Dept. IIT Kharagpur	QIP.	Two Week	Novembe r 19- Novembe r 30 2001
21	ISTE Approved STTP on "Water Management: Basic Principles and	CWM Dept. S.G.G.S. College of Engg. & Tech Vishnupuri Nanded	ISTE.	Two Week	June 25 – July 7, 2001

	Interdisciplinary Approach."				
22	ISTE Approved STTP on "Neural Network and Fuzzy logic: Theory and Applications."	Instrumentation Engg Dept., SGGS College of Engg. & Tech. Vishnupuri, Nanded.	ISTE.	Two Week	11 th – 23 rd June June 2001
23	Short Term Training Programme on "Programming with C and C++"	EC/CSE Dept., SGGS College of Engg. & Tech.	ISTE.	Three Week	June 29- July 19, 2000
24	ISTE Approved STTP on "System Engineering"	CWM Dept. S.G.G.S. College of Engg. & Tech Vishnupuri Nanded	ISTE.	Two Week	18 th – 28 th June 2000
25	AICTE sponsored ISTE STTP on "Digital Signal and Image Processing."	EC/CSE Dept., SGGS College of Engg. & Tech. Vishnupuri, Nanded	AICTE/ ISTE	Two Week	5 th -17 th June 2000
26	Q I P Short Term Training Programme on "Safety in Metallurgical Industries"	Production Engg. Dept., SGGS College of Engg. & Tech. Vishnupuri, Nanded	AICTE.	One week	17 th To June 23, 1996

17. Participation in Coursera Courses:

Sr	Title of the Course	Course Offered	Duration	Completion	% Marks
No		by		Date	Obtained
1.	Leadership and Emotional	Indian School of	Four	May 10, 2020	97.50%
	Intelligence	Business	weeks		
2.	Speaking to Inspire: Ceremonial	University of	Five	May 8, 2020	84.40%
	and Motivational Speeches	Washington	weeks		
3.	Speaking to persuade: Motivating	University of	Five	May 4, 2020	93.48%
	audiences with solid arguments	Washington	weeks		
	and moving language				
4.	Foundations of Teaching for	Commonwealths	Four	May 7, 2020	88.33%
	Learning: Being a Professional	Education Trust	weeks		
5.	Speaking to inform: Discussing	University of	Five	May 2, 2020	88.60%
	complex ideas with clear	Washington	weeks		
	explanations and dynamic slides				
6.	Introduction to Personal	University of	Four	May 1, 2020	100.00%
	Branding	Virginia	weeks		
7.	Introduction to Public Speaking	University of	Five	April 24, 2020	93.50%
		Washington	weeks		
8.	Speak English Professionally: In	Georgia Institute	Four	April 20, 2020	97.39%
	Person, Online & On the Phone	of Technology	weeks		
9.	The Art of Negotiation	The University of	Four	April 19, 2020	97.75%
		California Irvine	weeks		
10.	Effective Problem-Solving and	The University of	Four	April 16, 2020	94.62%
	Decision-Making	California Irvine	weeks		
11.	Fundamentals of Management	The University of	Four	April 11, 2020	95.59%
		California Irvine	weeks		
12.	High-Impact Business Writing	The University of	Four	April 10, 2020	100.00%
		California Irvine	weeks		

13.	Communication in the 21st	The University of	Four	April 8, 2020	85.00%
	Century Workplace	California Irvine	weeks	_	
14.	Finance for Non-Financial	The University of	Four	April 6, 2020	92.22%
	Professionals	California Irvine	weeks	_	
15.	Project Management: The Basics	The University of	Four	April 4, 2020	88.85%
	for Success	California Irvine	weeks	_	
16.	Work Smarter, Not Harder: Time	The University of	Four	April 4, 2020	96.88%
	Management for Personal &	California Irvine	weeks		
	Professional Productivity				
17.	Python for Data Science and AI	IBM	Four	May 14, 2020	96 %
			weeks		
18.	Introduction to Computer Vision	IBM	Four	May 17, 2020	100%
	with Watson and Open CV		weeks		

18. Research Consultancy/ Training Offered

Sr. No.	Year	Brief Description of Activity	Revenue Generated
1.	2020	Two Months of Corporate Training to Bharat Forge Trainees under Corporate Social Responsibilities, Oct 2020-Dec 2020.	7.5 Lakh
2.	2019	One Week AICTE Sponsored Short Term Training Program on "ASIP-Advances in Signal and Image Processing," 27 -31 May 2019	
3.	2017	CoE-TEQIP-II Sponsored One Week International STTP on "Computer Vision and Biomedical Imaging"	
4.	2015	Two Days Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on 11-12 th April 2015.	
5.	2014	One Week STTP on "Wavelets and its Applications" on 8th-12th December 2014.	Rs 1,59,000/-
6.	2010	One day Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on January 23, 2010.	Rs. 83,750/-
7.	2010	Second one-day Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on March 20, 2010.	Rs. 28,250/-
8.	2009	IEEE National Level Workshop on Wavelets and Applications, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, during 8th -10th June 2009.	Rs.1.6 Lakh
9.	2006	A Short-Term Training Program on "Recent Trends in Signal and Image processing" for Engineering Faculty members under TEQIP at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, during 16-18th Jan 2006.	1.56 Lakh
10.	2006	AICTE Sponsored Staff Developments Two weeks Induction Program on "New Concepts, Methods, and Advanced Techniques in Speech Processing, Image Processing, and Pattern Recognition" 15-26 th May 2006.	AICTE sponsored
11.	2006	Two Day Workshop on "Intellectual Property Rights" under Technical Education Quality Improvement Program at SGGSI&T, Vishnupuri, Nanded, from 13-14 th Aug 2006.	TEQIP Sponsored

19. Invited Talks at the International level:

- a. Conducted Online Challenge on Retinal Image Analysis for Multi-Disease Detection Challenge on RFMiD dataset at IEEE-ISBI 2021 on April 13, 2021, in France.
- b. Keynote Address on "Challenges and Research Opportunities in Image Processing and Computer Vision" in IEEE –ICIRD 2018 in Bangkok, Thailand, on May 11, 2018.
- c. Conducted Online Challenge on Diabetic Retinopathy Database *IDRiD at IEEE-ISBI 2018 on April 4, 2018, in Washington DC, USA.*
- d. Invited research talk delivered on "Content-Based Image Retrieval: Applications to Texture and Retinal Image Retrieval," at the University of Iowa, U.S.A., August 23, 2012.
- e. Invited Talk on "Wavelet-Based Features for Texture Image Retrieval," at University of California Santa Barbara, California State, USA, on November 18, 2006.
- f. Invited talk delivered on "Wavelet-Based Features for Texture Image Retrieval," at Computer Vision Center, University De Autonoma, Barcelona, Spain, June 20, 2006.
- g. Invited talk on "Wavelets and its application to Satellite Image Processing," at Institute De Cartographic, Catalunya, Barcelona, Spain, June 29, 2006.

20. Invited Talks at the National level:

- 1. Resource person for the invited talk on "Role of Technology on Internal Security," IIT Bombay on April 29, 2022.
- 2. Resource person for the invited talk on "Funding Agencies and How to write Effective Research proposal," Pimpri Chinchwad College of Engineering Pune, June 25, 2021.
- 3. Resource person for the Short-Term Training Program (STTP) on "Data Analytics with Python", sponsored by AICTE, at the Department of Electronics & Telecommunication Engineering, SF's Sandip Institute of Engineering & Management, Nashik on 20th and 27th May 2021.
- 4. Resource person for the Faculty Development Program on "Machine Learning and its applications" on l6th March 2021, to March 20, 2021, at Sharad Institute of Technology Ichalkaranji.
- 5. Guest Speaker for AICTE Sponsored Two Weeks online FDP program on "Artificial intelligence and its applications in Biomedical Engineering" organized by JSPM's Rajarshi Shahu College of Engineering, Electronics, and Telecommunication Department, Pune, December 18, 2020.
- 6. Webinar on "Machine Learning on IoT Data" for FDP organized by VES College Mumbai on August 12, 2020.
- 7. Webinar on "Machine Learning Opportunities and Research Challenges" for FDP organized by College of Engineering Pune on July 15, 2020.
- 8. Webinar on "Machine Learning Opportunities and Research Challenges" organized by IoIT College Pune, 16th June 2020.
- 9. Webinar on "Machine Learning Opportunities and Research Challenges" for FDP organized K J Somaiya College of Engineering Vidyavihar Mumbai on June 2, 2020.
- 10. Webinar on "Machine Learning Challenges and Applications" organized by Don Bosco Institute of Engineering and Technology Bangalore on June 8, 2020.
- 11. Webinar on "Wavelets and Applications" for FDP organized by Government Engineering College Karad on 26th -27th May 2020.
- 12. Conducted online STTP on "Computer Vision and Machine Learning" for YCC Nagpur VIT on 25-30Th May 2020.
- 13. Conducted One Day Workshop on "Effective Research Methodology" at B N College of Engineering Pusad, Maharashtra, on September 21, 2019.
- 14. Invited Talk on "Research Opportunities and Challenges in AI and Machine Learning" at Cummins College of Engineering Pune in Two Weeks AICTE Sponsored STTP on September 17, 2019.
- 15. Conducted Two Days Workshop on "Effective Research Methodology" at SSGM College of Engineering Shegaon, Maharashtra, 2nd- 3rd Aug 2019.

- 16. Invited Talk on "Challenges and Research Opportunities in AI and Machine Learning" at Basweshawar Engineering College Bagalkot, Karnataka, June 2019.
- 17. Conducted Two Weeks of STTP on "Image Processing, Wavelets, and Machine Learning" at Terna College of Engineering Nerul Mumbai, Maharashtra, June 12 June 22, 2019.
- 18. Conducted One Week STTP on "Wavelets and Applications" at St Joseph Engineering College Mangalore, Karnataka, 1st- 5th January 2019.
- 19. Invited Talk on Machine Learning in STTP organized by AISSM College of Engineering Pune, March 17, 2018.
- 20. Keynote Address on "Challenges and Research Opportunities in Image Processing and Computer Vision" in 1st IEEE International Conference on Intelligent Systems and Information Management, 05-06 October 2017 at MGM's JNEC Aurangabad.
- 21. Conducted one Week STTP on "Wavelets and Machine Learning" at VES College of Engineering Mumbai, from 3rd -8th July 2017.
- 22. Conducted STTP on "Image Processing and Pattern Recognition" at VIT Pune on 26-29th June 2017.
- 23. Conducted Two Days Workshop on "Effective Research Methodology" at Sant Gajanan Maharaj College of Engineering, Shegaon, 22nd -23rd Aug 2017.
- 24. Invited Talk on "Research Opportunities in Image Processing" in 2016 IEEE International Women in Engineering (WIE.) Conference on Electrical and Computer Engineering (WIECON-ECE 2016) is hosted by "The All India Shivaji Memorial Society's Institute of Information Technology," Pune, Maharashtra, India, during December 19-21, 2016.
- 25. Invited Talk on "Wavelets and its Applications" in one Week STTP Aspects of MATLAB Tools in Communication, Control and Signal Processing with Simulink at JNEC Aurangabad on December 2, 2016.
- 26. Conducted Two Week STTP on "Wavelets and Machine Learning" at K J Somaiya College of Engineering Mumbai, from 15th-25th Nov 2016.
- 27. Invited Talk in Two Days National Workshop on Wavelet Transform and its Application in Signal Processing at IPS Academy, Indore, on November 5, 2016.
- 28. One Day workshop on "Research Methodology" at PES College of Engineering Aurangabad on August 20, 2016.
- 29. Invited Talk in One Week STTP on "Application of Computer Vision and Machine Learning" at Sinhgad College of Engineering, Kondhwa Pune, from March 2 to March 6, 2016.
- 30. Invited Talk on "Fundamentals of Image Processing and Wavelet Transform" in two days' Workshop in "Advances in Image and Signal Processing" at JSPM Narhe Technical Campus on 4th and 5th March 2016.
- 31. One Day workshop on "Research Methodology" at Sinhgad Academy of Engineering, Kondhwa, Pune on June 7, 2016.
- 32. Expert talk on "Research Paper Writing" at NBN Sinhgad School of Engineering, Ambegaon Pune, on June 8, 2016.
- 33. Tutorial session on "Design of Rotated Wavelets and its Applications" in IEEE International Conference on Advances in Signal Processing organized by Cummins College of Engineering Pune on June 9, 2016.
- 34. Expert talk on "Wavelet Transform" at Chh. Shahu College of Engineering Aurangabad on June 10, 2016.
- 35. Conducted Two Days Workshop on "Wavelet Theory "at Government College of Engineering Aurangabad from 12th- 13th April 2016.
- 36. Expert lecture in AICTE Sponsored Two Week STTP on "Selected Topics in Signal Processing and Machine Intelligence with Hands-on" at College of Engineering Pune on May 26, 2016.
- 37. Conducted One Week of STTP on "Wavelets and its Application" at Yashwantrao Chavan College of Engineering Nagpur from April 28 to May 4, 2016.
- 38. Conducted Two Days Workshop on "Multi-rate, Wavelet Transform and its Applications" at K J Somaiya College of Engineering Vidyavihar Mumbai, from 18th-19th March 2016.

- 39. Guest lecture on "Pattern Recognition" at College of Engineering Pandharpur on 25th- 26th March 2016
- 40. Keynote address "Recent Advances in Image Processing" at 3rd National Conference on ACCET-Advancement in Communication, Computing, and Electronics Technology, at M.E.S. CoE Pune on February 11, 2016.
- 41. Keynote Address on "Opportunities and Challenges in Image Processing" at Third National Conference Communication Computing and Networking 2016 at MES College of Engineering Pune, on February 12, 2016.
- 42. Invited talk on 1 Days workshop on "Mathematical Modelling in Signal Processing" at RMD. Sinhgad School of Engineering, Warje, Pune, on January 29, 2016.
- 43. Invited talk on 2 Days workshop on "Pattern Recognition and its Application" at Sanjeevani Education Societies College of Engineering Kopargaon on 22-23rd January 2016.
- 44. Two Days workshop on "Effective Research Methodology "at Hi-Tech Engineering College Aurangabad on 10-11th January 2016.
- 45. Invited talk on "Intelligent Computing Algorithm and Applications" at MIT College of Engineering Pune on December 3, 2015.
- 46. Invited Talk at Faculty Development Program on "Effective Research Methodology" at Bapurao Deshmukh College of Engineering, Sewagram, Wardha, on November 22, 2015.
- 47. Invited Talk on "Image Transforms" at Shri Ramdeobaba College of Engineering & Management, Nagpur, on October 9, 2015.
- 48. Invited Talk on "Wavelet and Its Applications" at Suresh Deshmukh College of Engineering Wardha on October 8, 2015.
- 49. Conducted One day workshop on "Pattern Recognition & its Applications" organized at G. H. Raisoni College of Engineering and management Wagholi, Pune, on September 16, 2015.
- 50. Invited talk on "Wavelet and Its Application" at M. S. Bidve College of Engineering Latur on September 7, 2015.
- 51. Conducted Two Days workshop on "Effective Research Methodology" at S V College of Engineering Tirupati on 21-22nd July 2015.
- 52. Invited Talk on "Research Opportunities in Speech & Image Processing" at Mukesh Patel School of Technology Management & Engineering, Mumbai, on July 17, 2015.
- 53. Invited Talk on "Wireless Sensors and Networks" at The Institution of Electronics and Telecommunication Engineers Pune center, Pune, on 1st 2nd Aug. 2015.
- 54. Invited Talk on "Image Processing" at All India Shri Shivaji Memorial Society's Institute of Information Technology on August 24, 2015.
- 55. Short-Term Training Program on "Advanced Techniques in Research Methodology," at Sharad Institute of Technology College of Engineering, from 23rd to June 24, 2015.
- 56. Invited Talk on "Trends in Signal Processing and its Industrial Application" at Rajiv Gandhi College of Engineering, Nagpur, on June 16. 2015.
- 57. Invited Talk on "Machine Learning" at Sinhgad College of Engineering Pune on June 13, 2015.
- 58. Invited talk on "Research Methodology and issues" at Dr. P. G. Halakatti College of Engineering and Technology, Bijapur, on June 8, 2015.
- 59. Invited Talk on "Soft Computing" at Sinhgad College of Engineering and Technology, Vadgaon, Pune, on June 12, 2015.
- 60. Invited Talk on "Teaching Pedagogy and Soft Skill" at Sharad Institute of Technology, Polytechnic, Ichalkaranji, on May 12, 2015.
- 61. Invited talk on "Wavelets and its Application in Computer Vision" at Yeshwantrao Chavan College of Engineering Nagpuron April 24, 2015.
- 62. Invited Talk on "Research Methodology" at Maharashtra Institute of Technology, Pune, on 13th 14th March 2015.
- 63. Invited talk on "Wavelets and Application using MATLAB" at Bharati Vidyapeeth's College of Engineering for Women, Pune, on 7th 8th March 2015.

- 64. Invited Talk on "Wavelets and its Application in Signal & Image Processing" at Sinhgad Academy of Engineering, Kondhwa, Pune, on 4th -8th Feb 2015.
- 65. Invited Talk on "Research Methodologies" at S. B. Patil College of Engineering, Indapur, on January 17, 2015.
- 66. Invited Talk on "Research Methodology" at Karmaveer Baburao Ganpatrao Thakare College of Engineering on February 15, 2014.
- 67. Invited Talk on "Interdisciplinary Applications of Digital Signal Processing" at G H Raisoni College of Engineering Wagholi Pune on January 23, 2014.
- 68. Invited Talk on "Research Methodology: Tools and Techniques" at Dr. J. J. Magdum College of Engineering Jaysingpur, Kolhapur, on January 7, 2014.
- 69. Invited plenary talk on "Modeling and Simulation in Engineering and Technology" at Godavari College of Engineering Jalgaon on February 16, 2014.
- 70. Conducted One week workshop on "Wavelets and Application" at Dr. P. G. Halakatti College of Engineering and Technology, Bijapur, on 9th 13th June 2014.
- 71. Short-Term Training Program on "Research Methodologies in Engineering and Science" organized by Vishwakarma Institute of Information Technology, Pune, on 13th- 17th Sep. 2014.
- 72. Conducted a two-day Faculty Development Program on "Research Methodology" at Deogiri Institute of Engineering and Management Studies, Aurangabad, on 28th 29th Nov. 2014.
- 73. Invited Talk on "Literature Survey and Problem Formulation" at Bhivarabai Sawant College of Engineering & Research, Narhe, on November 14, 2014.
- 74. Invited Talk on "Wavelet Transform" at M. S. Bidve Engineering College, Latur, on November 9, 2014.
- 75. Invited Talk on "Research Methodology and LaTeX" at Annasaheb Dange College of Engineering & Tech., Ashta, Sangli, on 13th 18th Oct. 2014.
- 76. Invited Talk on "Image Processing and Machine Learning" at N. B. Navale Sinhgad College of Engineering, Solapur, on 24th 26th Dec. 2014.
- 77. Short-Term Training Program on "Signal and Image Processing," organized by Zeal College of Engineering Pune, 15th- 19th April 2013.
- 78. Short-Term Training Program on" Image Processing with Matlab," organized by MGMs College of Engineering Nanded, July 2013.
- 79. Invited Talk on "Control System and its Applications," at Department of E & TC Engineering, Shram sadhana Bombay Trust's College of Engineering, Bambhori, on September 28, 2013.
- 80. Invited talk on "Digital signal Processing and Applications" at College of Engineering Bhambori, Jalgaon, on September 28, 2013.
- 81. Invited Talk on "Image Processing and Wavelets" at Appa College of Engineering Gulbarga (Karnataka) on September 21, 2013.
- 82. Invited Talk on "Wavelets and its Application" at BSWCOE Wagholi Pune on September 20, 2013.
- 83. Invited Talk on" Wavelets" at College of Engineering Ramtek, September 5, 2013.
- 84. Invited Talk on "Signal & Image Processing with Wavelet" at Veermata Jijabai Technological Institute, Mumbai, on 16th 20th Dec 2013.
- 85. Invited Talk on "Image Processing and Machine Learning" at Sinhgad College of Engineering, Vadgaon, Pune, on 3rd 7th Dec. 2013.
- 86. Short-Term Training Program on "Wavelets and Application" organized by Sinhgad College of Engineering Narhe, Pune, December 12- December 16, 2012.
- 87. Conducted a Two-day workshop on "Effective Research Methodology" organized by R C Patel College of Engineering Shirpur on 25-26th June 2011.
- 88. Conducted Two days workshop on "Effective Research Methodology" organized by the ISTE Chapter of G H Raisoni College of Engineering Wagholi Pune, on 7-8th January 2011.
- 89. Conducted one day workshop on "Effective Research Methodology" at the College of Engineering Kopargaon on January 31, 2010.

- 90. Conducted one day workshop on "Effective Research Methodology" at MIT College of Engineering Aurangabad on February 6, 2010.
- 91. Invited Talk on "Application of Digital Image Processing" at Army Institute of Technology (AIT), Pune, on June 2, 2010.
- 92. Invited talk on "Wavelet-based features for texture image" at Army Institute of Technology (AIT), Pune, on July 2, 2010.
- 93. Invited Talk on "Wavelets and Content-Based Image Retrieval" at Walchand College of Engineering, Sangli, on September 15, 2010.
- 94. Conducted a Two-day workshop on "Effective Research Methodology" organized by Symbiosis International University Pune, Dec 2010.
- 95. Invited talk on "Image Compression" in STTP organized by HiTech College of Engineering Aurangabad, November 25, 2009.
- 96. Invited talk on "Wavelets and its Applications" in STTP organized by G H Raisoni College of Engineering Pune, November 26, 2009.
- 97. Three Days Workshops on "Signal and Image Processing" organized by Government College of Engineering Aurangabad, April 2007.
- 98. TEQIP sponsored Short Term Training on "Signal and Image processing" organized by Rajaram Bapu College of Engineering Sakrale, 19-20 March 2007.
- 99. TEQIP sponsored Short Term Training on "Signal and Image Processing" organized by Vikhe Patils College of Engineering Ahemadnagar in March 2007.
- 100. TEQIP sponsored Short Term Training on "Nonlinear Image Processing" organized by Kashibai Navale College of Engineering Pune in April 2007.
- 101. TEQIP sponsored Short Term Training on "Wavelets and its Application" organized by M.A.E. Alandi College of Engineering Aug 2007.
- 102. Short-Term Training on "Recent Trends in Information Technology" organized by BLDE's College of Engineering Bijapur Oct 2007.
- 103. Invited Talk on "Complex Wavelets and its Applications" in a national conference organized by D. Y. Patil College of Engineering Pune, Sept 2007.
- 104. TEQIP Short Term Training Programme on "Recent Trends in Signal and Image Processing" Organised by SGGSIE & T, Nanded during 16th 18th Jan 2006.
- 105. National Workshop on "Advances in Signal and Image Processing 2006" organized by J. N. T. University during 27th 28th Feb 2006 at Kakinada (Andra Pradesh), India
- 106. National Workshop on "Frontier Research Issues in Pattern Recognition and Image Processing," organized by New Horizon College of Engg. Bangalore, 23-24th March 2006.
- 107. Two Days National Workshop on "Pattern Recognition and Image Processing: A Multidisciplinary Research Perspective," Organized by K. B. N. College of Engineering, Gulbarga Karnataka, 15th -16th May 2006.
- 108. ISTE Short Term Training Programme on "Advances in Signal Processing," organized by College of Engineering Ambajogai, 3rd -July 15, 2006.
- 109. Short-Term Training program on "Image Processing" Organised by Academic Staff College, Dr. B. A. Marthwada University, Aurangabad from 05th –24th Dec 2005.
- 110. QIP Short-Term Training Program on "Image Processing and Multimedia Systems" organized by V. J. T. I. Mumbai from June 7 To July 2, 2004, in Mumbai, India.
- 111. Workshop on "Recent Trends and Advances in Image Processing" organized by J. N. T. University from December 30 To December 31, 2003, at Kakinada (Andra Pradesh), India.
- 112. QIP ISTE short-term training programme on "Image and Video Processing for Multimedia Applications" organized at Indian Institute of Technology Kharagpur, 19th -30 Nov 2001.

21. Expert Service to Profession:

- Working as a reviewer for the following international journals:
- 1. IEEE Transactions on Image Processing, IEEE Publications.
- 2. IEEE Transactions on System, Man, and Cybernetics-Part B, IEEE Publications.
- 3. IEEE Transactions on System, Man, and Cybernetics-Part A, IEEE Publications.
- 4. IEEE Transactions on Multimedia, IEEE Publications.
- 5. IEEE Transaction on Circuits and Systems for Video Technology, IEEE Publications.
- 6. Pattern Recognition Letter, Elsevier Publications.
- 7. International Journal of Image Vision and Computing, Elsevier Publications.
- 8. International Journal on Pattern Analysis and Applications, Springer Publications.
- 9. Signal Processing, Elsevier Publications.
- 10. Signal Processing Letter.
- 11. International Journal of Pattern Recognition and Artificial Intelligence, World Scientific.
- 12. International Journal of Digital Signal Processing, Elsevier Publications.
- 13. Journal of Medical Systems, Springer Publications.
- 14. Journal of X-Ray Science and Technology, University of Oklahoma.
- 15. Journal of Information Science, Elsevier Publications.
- 16. Image Science Journal, published by Royal Photographic Society by Maney Publications.
- 17. Computers and Electrical Engineering, Elsevier Publications.
- 18. Journal of Digital Imaging, Springer Publications.
- **AICTE Expert Committee Member for evaluation** of various research proposals submitted under multiple schemes.
- **AICTE Expert Committee Member for approval** of New Engineering Institutes.
- **Member of Board of Innovation, Incubation and Enterprise** of Swami Ramanand Teertha University Nanded. Appointed by Vice-chancellor for five years from April 5, 2018.
- **Member of the Board of Studies (BoS)** of the Department of Electronics and Telecommunication Engineering, Government College of Engineering Amravati.
- **Member of the Board of Studies (BoS)** of the Department of Computer Science and Engineering, PDA College of Engineering Gulbarga.
- **Member of the Board of Studies (BoS)** of the Department of Electronics and Telecommunication Engineering, Swami Ramanand Teertha University Nanded.

22. Short-Term Courses Conducted and Coordinated

- 1. AICTE sponsored One Week STTP on "Advances in Signal and Image Processing" from May 27 to May 31, 2019.
- 2. TEQIP-II (CoE) sponsored One Week International STTP on "Computer Vision and Biomedical Imaging" 28-31st March 2017.
- 3. TEQIP-II (CoE) sponsored a Two Week Short term Training Program on "Mathematical and Statistical Foundation to Signal and Image Processing" at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, from May 28 to June 6, 2015.
- 4. Two Days Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on 11-12th April 2015.
- 5. One Week STTP on "Wavelets and its Applications" on 8th-12th December 2014.

- 6. Two Days Workshop on "Bio-design" at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, in association with Stanford India Bio-design Center, AIIMS New Delhi, on 8th-9th August 2013.
- 7. One day Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on March 20, 2010.
- 8. One day Workshop on Effective Research Methodology, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, on January 23, 2010.
- 9. IEEE National Level Workshop on Wavelets and Applications, at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, during 8th -10th June 2009.
- 10. Two Day Workshop on "Intellectual Property Rights" under the Technical Education Quality Improvement Program at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, from 13-14th Aug 2006.
- 11. AICTE Sponsored Staff Developments Two weeks Induction Program on "New Concepts, Methods, and Advanced Techniques in Speech Processing, Image Processing, and Pattern Recognition" 15-26th May 2006.
- 12. Short Term Training Program on "Recent Trends in Signal and Image processing" for Engineering Faculty members under TEQIP at Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, during 16-18th Jan 2006

23. Research Projects Completed

- a. **Project Investigator** of Extended Funding for "Center of Excellence in Signal and Image Processing" Received **Rs. 2 corers** from NPIU. India through SPFU in 2020.
- b. **Project Investigator** of "Center of Excellence in Signal and Image Processing" Received **Rs. 5 corers** from NPIU. India through SPFU in 2013.
- c. Completed AICTE sponsored project, "Content Based Medical Image Retrieval" under Career Award for Young Teacher, Dec 2005-Dec 2008. (Total Financial Support from AICTE is Rs.10.5 Lakh).
- d. **Co-Principal Investigator** of AICTE sponsored research project on "Full Duplex Intelligent System for Blind and Deaf Person" Received **Rs. 8.82 Lakh** from AICTE under RPS, 2007.

24. Professional and Extracurricular Activities

- a. Coordinator of Summer Internship under CoE in 2016, 2017, 2018, and 2019.
- b. **Program Chair** of IEEE International Conference on Signal and Information Processing (IConSIP-2016), jointly organized by I.I.T. Bombay, College of Engineering Pune, S V College of Engineering Tirupati, and SGGIE&T Nanded at Nanded from 6th to October 8, 2016.
- c. **Publication Chair** of National Conference on Communication, Computing and Networking Technologies organized by SGGSIE&T Nanded during 15th-16th March 2013.
- d. Faculty Coordinator of National Level Student's Technical Event "PRAGYAA 2009," held in March 2009
- e. Faculty Coordinator of State Level Student's Technical Event "GenIT2K8" held in March 2008.

25. Community Involvement/ Outreach

- a. Delivered an invited talk on "Career Opportunity after Tenth and Twelfth Standard Students," organized by Novodaya Vidyalaya Shankar nagar, Nanded, February 2008.
- b. Delivered an invited talk on "Opportunities in Electronics Engineering" at Career Fair organized by Gramin Polytechnic Nanded in March 2009.

26. MoU Signed

S. No.	MoUs formulated	Name of Agencies/Departments involved	Year of MoU
1	MoU for faculty and student exchange and collaborative research work	Center for Intelligent Signal and Imaging Research (CISIR) of UTP Malaysia and Center of Excellence in Signal and Image Processing of SGGSIE&T Nanded	2013
2	MoU for sharing medical database and expertise	Tata Memorial Hospital Bombay and Center of Excellence in Signal and Image Processing of SGGSIE&T Nanded	2014
3	MoU for sharing medical database and expertise	Zankariya Imaging Center Bombay and Center of Excellence in Signal and Image Processing of SGGSIE&T Nanded	2014
4	MoU for Industry Institute Collaboration	John Deer Pune and Center of Excellence in Signal and Image Processing of SGGSIE&T Nanded	2021

27. References:

1. Dr. P.K. Biswas

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2. Dr. B. N. Chatterji

Ex. Professor (Ph.D. Supervisor)

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(West Bengal) INDIA, Telephone: (R): +91 9831742495 E-mail: bnchatterji@gmail.com

3. Dr. Vikram Gadre

Professor, Department of Electrical Engineering, I.I.T. Bombay.

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4. Dr. B. S. Manjunath

(BOYSCAST Post Doc Fellowship Supervisor)

Professor and Vice-Chair, Department of Electrical and Computer Engineering,

Director, Center for Bio-Image Informatics, University of California

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Manesh B. Kokare, Ph.D.

Appendix-A (Details of Ph.D. Students Guided)

Sr.	Student	Thesis Title	Period of	Ph.D.
No.			Guideship	awarded in
1	Shirdhonkar	Document Image Retrieval	27/08/2008 To	2012
	Malkappa Sidharam		27/10/2012	
2	Birgale Lenina	Biometrics Identification System Using	27/08/2008 To	2012
	Vithalrao	Iris	27/10/2012	
3	Bharkad Sangita	Secure Biometric System Using	30/12/2008 To	2013
	Dhondiba	Fingerprint	17/05/2013	
4	Kejgir Sushma	Development of New Algorithms for	24/07/2008 To	2013
	Ganpatrao	Digital Image Watermarking	14/09/2013	
5	Patil Pushpabai	Relevance Feedback in Content-Based	27/08/2008 To	2014
	Bhimanagauda	Image Retrieval	16/05/2014	
6	Waghmare Vivek	Enhancing Security for Selective	12/11/2011 To	2017
	Nivrutirao	Dissemination of XML Document using	28/04/2017	_017
	Tittadiao	Structure-Based Routing	20,01,201,	
7	Gaikwad Dwarkoba	Network Intrusion Detection System	26/12/2012 To	2017
'	Pandurang	Using Soft Computing Tools	07/04/2017	2017
8	Jagtap Jayant	Human Age Classification from Frontal	11/11/2011 To	2017
0	Jagtap Jayant Janardhan	Face Images	08/09/2017	2017
9	Bhosale Nilesh	Reduction of Semantic Gap Between low	07/09/2010 To	2018
9			, ,	2016
10	Pandurang	Level and High-Level Features for CBIR	05/03/2018	2010
10	Manjramkar Arti	Microaneurysms and Hemorrhage	26/12/2012 To	2018
	Kishanrao	Detection in Retinal Images	31/05/2018	2010
11	Kamble Ravi	Retinal Image Analysis and Screening	07/02/2014 To	2019
	Mukundrao	System	26/06/2019	
12	Porwal Prasanna	Automatic Retinal Image Analysis for the	25/11/2014 To	2020
	Pradeepkumar	Detection of Diabetic Retinopathy	15/01/2020	
13	Komatwar Rupali	Classification of Malware	10/10/2013 To	2021
	Manoj		08/10/2020	
14	Pachade Samiksha	Retinal Image Characterization for	14/09/2017	2021
	Pradeeprao	Disease Detection and Diagnosis	To 02/03/2021	
15	Hrishitosh Bisht	Novel Approaches to Selected	Joint	2022
		Electromagnetic Problems	Supervision	
		using Multi-resolution Representation,	with Prof V M	
		Iterative Techniques	Gadre at IIT	
		& Machine Learning	Bombay	
16	Ambulgekar Hanmant	Big Data Processing and Analysis in	10/101/2013	Ongoing
	Pandurang	Cluster-Based Environments	To date	
17	Bhagat Sandesh	Deep Learning For Agriculture	24/04/2019 To	Ongoing
	Pralhad	Applications	Till date	0 0
18	Sachin Panchal	Automatic Detection of Diabetic	June 2021	Ongoing
		Retinopathy and Associated Diseases	J	- 0~0
19	Ruhi Kabra	Retinal Image Synthesis for DR Data	June 2021	Ongoing
		Augmentation	7 3110 2021	~ 8
20	R. N. Kankrale	Retinal Image Analysis for Hypertensive	June 2021	Ongoing
20	IX. IX. IXAIINIAIC	Retinopathy Detection	June 2021	
21	Vikas Patil	Modified Descriptors for Visual Search	June 2021	Ongoing
41	VIKAS FAUI		June 2021	Ongoing
		using Deep Learning		