Somaiya Vidyavihar University

Name: Ms. Sushma Kadge	**E-mail:** sushmakadge@somaiya.edu

Contact No: 022-66449211
Department/Section: Electronics Engineering
College: K J Somaiya College of Engineering

DOJ Somaiya: 05-01-2004	Career Experience: 23 Yrs	Industry Experience: NIL	Teaching Experience: 23 Yrs

Present Academic Designation: Assistant Professor

Area of research/specialization and Courses Delivered

Research domain/interests/areas
1. Signal Processing

Courses Delivered
1. Engineering Exploration
2. Signals & Systems
3. Digital Signal Processing
4. Digital Image Processing
5. Digital Signal & Image Processing
6. Discrete Time Signal Processing
7. Continuous Time Signal and Systems
8. Advance Digital signal and Image Processing
9. Signal Processing Laboratory
10. Electrical Network analysis and synthesis
11. Electrical Networks
12. Biomedical Electronics
13. Biomedical Sensors and Signal Processing
14. Printed Circuit Board
15. Data Structures
16. Python Programming for Electronics
17. C
18. C++

Recognition as a teacher by any University	UG: Yes	PG: Yes	Ph.D : Yes/No
Details of Recognitions			

Education					
Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
PG	B.Tech in Electronics Engineering	Mumbai	V.J.T.I	2011	7.6
UG	B.E in Electronics Engineering	S.R.T.M.U., Nanded	M.G.M	2000	68

Notable Experience Details					
Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.	KJSCE	Assistant Professor	Jan. 2004	Till date	19 years
2.	SPIT	Lecturer	Aug 2003	Dec. 2003	5 Months

3.	SGGS	Lecturer	Jan 2003	July 2003	7 Months

Research Accomplishments and Projects		
No of students completed PG thesis / Project work as on date: 03		No of students / groups completed UG projects as on date: 50+
Publications Total:18	Number of Peer review Journal papers:01	Number of Conference papers:15

Details of Publications:

International Journals

1. An Investigation of Retinal Descriptors on Indian database for Automatic Pathological Diagnosis and Classification of Retinopathy of Prematurity by Sushma Kadge, Sanjay Nalabalwar, Anil Nandgaonkar, Parag Shah, V. Narendran, International Journal of Biomedical Engineering and Technology,2022

Conferences

1. IoT Based Automated Entry System for Covid Prevention: A Review ,International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; pg 4335-4342,Volume 10 Issue V May 2022

2. P. Chawda, A. Sridhar, A. G. Mishra, H. Dedhia, M. Kambli and S. Kadge, "Design and Implementation of Hybrid BCI based Wheelchair," 2021 2nd International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2021, pp. 557-565, doi: 10.1109/ICOSEC51865.2021.9591796.

3. S. Kadge, S. Nalbalwar, A. Nandgaonkar and D. Singh, "Semi-automated Clinical Staging of Retinopathy of Prematurity Images," 2021 Second International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE), Bengaluru, India, 2021, pp. 1-5.

4. Review of Different Applications Using Visual Vibration Analysis, Pooja Khatri;Sushma Kadge;Uday Chhatre,2020 International Conference on Convergence to Digital World - Quo Vadis (ICCDW), Year: 2020 | Conference Paper | Publisher: IEEE , 18-20 Feb. 2020

5. Visual Vibration Analysis of Vibrating Object at Low Frequency, Pooja Khatri;Uday Chhatre;Sushma Kadge, 2021 6th International Conference for Convergence in Technology (I2CT), Year: 2021 | Conference Paper | Publisher: IEEE, 2-4 April 2021

6. Automated measurement of AVR Feature in Funds Images using Image processing and Machine Learning, International Research Journal Of Engineering and Technology (IRJET),July 2019.

7. Hotel Booking confirmation email classification and automation using RPA and Machine learning, International Research Forum For Engineers and Researchers, National Conference on recent Innovations in Science, Engineering and Technology, July 2019

8. "Analysis and Identification of Renal Calculi in Computed Tomography Images",3rd Biennial International conference on Nascent Technologies in Engineering(ICNTE 2019),at Fr.C.Rodriques Institute of Technology in association with IEEE ,Navi Mumbai on Jan.4-5,2019.

9. An Automatic approach for detection of Retinal diseases, International conference on recent trends in Engineering and technology ((ICRTET), VISHWACON 2016-17, at Vishwakarma Institute of Information Technology, Pune on 17th and 18th Feb.2017.

10. Classification of retinal disease based on different supervised techniques,International conference on advanced trends in engineering (ICATE) , DMCE, Airoli, Navi Mumbai– 7th-8th April 2017.

11. Combined Algorithm for detection of Fundus Diseases, National conference on Electronics &Telecommunication, Trinity College of Engg. & research, Pune on 24th & 25th Feb., 2017.

12. Prediction of PAF based on IBI interval, National Conference on Emerging Technologies & Applications in Engineering and Sciences, Saraswati College of Engineering, Kharghar, Navi Mumbai, Maharashtra, Feb 2011.

13. An Algorithm to Predict Patients Prone to PAF, First International Conference on Sunrise

Technologies, SSVPS's B.S.Deore College of Engineering & Polytechnic,Deopur, Dhule, Maharashtra., Jan 2011.
14. RR Interval Based Paroxysmal Atrial Fibrillation Analysis International Conference and Workshop on Emerging Trends and Technology 2011,Thakur College of Engineering and Technology, Kandivali, Mumbai, Maharashtra, Feb 2011.
15. S. S. Kadge & S. G. Deshmukh Wavelength Division Multiplexing An Overview, at Saurashtra University, Rajkot, Gujrat Mar. 23-25, 2002.

FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

Attended
1. Two weeks International Faculty Development Program on "Emerging Trends in Industry 4.0" from 18th May 2020 to 29th May 2020, Technically sponsored by ACM Student Chapter and organized by Computer Engineering Department, JSPM's Rajarshi Shahu College of Engineering, Pune, Maharashtra, India.

2. "MATLAB based Teaching-Learning in Mathematics, Science & Engineering". was organized by the Department of Electronics Engineering, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai in collaboration with DesignTech Systems Pvt. Ltd., Mumbai during 18th to 22nd May 2020.

3. COVID-19 Effect on Education Sector , Eduvoice Sangamner Chapter, Online National Webinar, on 10th May 2020.

4. Faculty development Programme on Python with Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt., of India organized by Dwarkadas Jivanlal Sanghvi College of Engineering during 03rd to 07th May 2020.

5. Advance in Signal & Image Processing (ASIP), Shri Guru Gobind Singh Institute Of Engineering & Technology, Nanded. May 2019.
6. Pedagogy for online & blended teaching learning process, Four week, IITB(14th Sept. to 12th Oct. 2017)
7. Foundation Program in ICT for Education, Four week, IITB(3rd Aug. to 7th Sept. 2017)
8. 3 D Animation Online Course from IITB , 2018
9. ISTE approved Two week Short Term Training Program on "Wavelet and Machine Learning" from 15th November to 25th November 2016, in Department of Electronics and Telecommunication Engineering of K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai.
10. One week STTP on "Linear Algebra and other mathematical principals for Engineers" under TEQIP-II at IITB during 18-22 June, 2016.
11. 2016 IEEE CIS Winter School "Emerging Research Trends in Computational Intelligence – Theory and Applications", 1 – 5 March, 2016 Organized by IEEE Computational Intelligence Society Chapter of IEEE Gujarat Section, DA-IICT and IIIT.
12. Attended a workshop on "Digital Signal Processing " conducted by Department of Electrical Engineering ,IIT Bombay, 2nd to 6th Nov. 2015
13. Attended a workshop at Indian Institute of Technology Bombay, India, on "Medical Imaging" during June 19-21, 2015.
14. Attended Workshop on LabVIEW (CORE I & CORE II) from Dec.16th 2014 to 20th Dec.2014,conducted by National Instruments and organized by KJSCE, Dept. of ETRX, Vidyavihar.
15. Attended two day Workshop on Matlab and Simulink on 7th and 8th October, 2014 conducted by Mathworks and organized by KJSCE, Dept. of ETRX, Vidyavihar.
16. Participated in National workshop on GPU Programming & Applications organized by CUDA

Centre of Excellence during 24th to 26th February 2014,IIT Bombay
17. "Virtual Instrumentation using LabVIEW" organized by Wadhwani Electronics Lab, IIT Bombay from Jan. 17-19 ,2014
18. "Analog Electronics" organized by , IIT Kharagpur from June 04-14, 2013
19. Attended the seminar organized by Mathworks India for Matlab & Simulink for Engineering Education on 20th Aug.2010.
20. Attended Short Term Training Program on '' Applications of software tools in Electronics and telecommunications, organized by Don Bosco Institute of Technology, Kurla,Mumbai, November 2008
21. Attended Short Term Training Program on 'Induction Training Program for Teachers', organized by TIFFR, Pune, December 2005.

Organized
1. Workshop on LabVIEW and Its applications with case studies was organized on 20th March, 2019 for Faculty and staff.
2. Workshop on Industrial Automation was organized for students, Faculty and Staff on 9th March, 2019.
3. Session on Industrial automation by Bharat Bijlee Limited was organized on 16th Jan. 2019 for all students Institute Industry interaction.
4. Hands on Workshop on "Python" organized for Faculty and Staff on 12th January2 2019.
5. Workshop on "Data Acquisition and its application" was organized for Faculty and Staff on 1st February, 2014
6. Organizing member of ISTE approved Two Weeks Short Term Training Program on Broadband Communication: Current Trends and Applications at K.J.Somaiya College of Engineering during 19th to 30th June2006.

Delivered
1. "**Data Acquisition using LabVIEW**" on 1st Feb.2014 for Faculty ,organized by Department of Electronics Engineering, K. J. Somaiya college of Engineering Mumbai.

	Notable Key Scholastic Achievements
1.	"Best Teacher "Awarded in 2009

	Notable Positions and Responsibility
1.	**Coordinator ISTE Student's Chapter :** Career Development and Personality Development of Students and overall development of our Technical Education System by conducting hands on session, Workshop, Seminar, webinar and Organizing **PRAKALPA** State level Working project exhibition Competition and Paper presentation.
2.	**Internship Coordinator:** Address problems and concerns of student. Prepare students for the internship experience. Assist and encourage students to refine internship goals. Opportunities/ Availability of external and In- house Internship to the students. Communicate with the company for assessment and Internship opportunities and understand their requirement. Preparation and maintenance of database with statistical analysis. Coordinate with the company representatives and faculties for progress of Internship made available to the students. Coordinate with the students for semester long Internship.
3.	**Alumni Coordinator :**
4.	**PG Coordinator**
5.	**Member of ISTE Teacher's Chapter:** Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System by conducting hands on session, Workshop, Seminar, webinar.
6.	**Time Table In charge**
7.	**Member of Department Examination Committee (DEC) since 2014 to 2017**
8.	**Placement Coordinator for Electronics Department from 2005- 2009 and 2011 to 2012**
9.	**Test In charge for the academic year 2008-2009.**

10.	**Member of Admission Committee**
11.	**Time table In charge for year 2008-2009 and 2012- 2013**
12.	**Member of Newsletter committee.**
13.	**Member of Result Analysis committee.**

Date: 08 /   02   / 2023   **Signature of Faculty Member**