Faculty Profile

Name	Dr. Vaishali S. Kulkarni
Designation	Assistance Professor
Department	E&TC Engineering
Email	vaishalikulkarni@pict.edu
Phone	+91-9890160173

Educational Qualifications

Degree	University/Institution	Year of Passing
Ph.D.(E&TC)	**Research Center:** AISSMS'S Institute of Information Technology, (AISSMSIOIT) Pune **University:** Savitribai Phule Pune University (SPPU), Pune	2024
M.E. (Elect)	Sinhgad College of Engineering Pune **University:** Savitribai Phule Pune University (SPPU), Pune	2009
B.E. (E&TC)	Institute: Shri Saint Gajanan Maharaj College of Engineering (SSGMCOE) Shegaon, Dist. Buldhana **University**: Saint Gadge Baba Amtravti University, Amravati.	1996

Professional Experience

Sr. No.	Designation & Institute	Duration
1	Asst. Prof, PICT Pune	2024 - Present
2	Assistant Professor, PICT Pune.	2021-2022
3	Research Intern: Cummins Technologies India Private Limited (CTIPL),	2018-2020
4	Asst. Prof. STES'S SKNCOE Pune	2010 – 2017
5	Asst. Prof. PVPIT Bavdhan Pune	2009-2010
6.	Guru Gobind Singh Polytechnic Nashik	2004-2006

Research Publications

Sr. No.	Title	Publication/Conference
1	FPGA Based Implementation of Data Compression Using Dictionary Based "LZMA" Algorithm	Arohi, A., & Kulkarni, V. S. (2014, June). FPGA based implementation of data compression using dictionary based "LZMA" algorithm. In Proceedings of 11 IRF International Conference (pp. 48-53). [UGC Approved]

2	Automated testing tool for engine software testing.	Bhide, R. M., & Kulkarni, V. S. (2016, September). Automated testing tool for engine software testing. In 2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT) (pp. 940-942). IEEE.
3.	A Wideband Variable-Gain Amplifier in 130 nm CMOS Technology	Waghmode, S., & Kulkarni, V. S. (2017, August). A Wideband Variable-Gain Amplifier in 130 nm CMOS Technology. In 2017 International Conference on Computing, Communication, Control and Automation (ICCUBEA) (pp. 1-4). IEEE. **DOI:** 10.1109/ICCUBEA.2017.8463758
4.	Review: Soot (Particulate Matter) Sensor with an application to control pollution in diesel exhaust	Kulkarni, V. S., & Chorage, S. S. (2019, September). Soot (Particulate Matter) Sensor with an application to control pollution in diesel exhaust. In 2019 5th International Conference on Computing, Communication, Control and Automation (ICCUBEA) (pp. 1-9). IEEE. DOI: 10.1109/ICCUBEA47591.2019.9129133
5.	MEMS Interdigital Electrode Sensor Design for Gas sensing Mechanism	Kulkarni, V. S., & Chorage, S. S. (2021, March). MEMS Interdigital Electrode Sensor Design for Gas sensing Mechanism. In 2021 International Conference on Emerging Smart Computing and Informatics (ESCI) (pp. 258-262). IEEE
6.	A Review on Flame and Smoke Detection Techniques in Video's	Memane, S. E., & Kulkarni, V. S. (2015). A review on flame and smoke detection techniques in video's. Int. J. Adv. Res. Electrical, Electronics Instrument. Eng, 4(2), 885-889. 10.15662/ijareeie.2015.0402065
7.	A review on IOT based energy monitoring and controlling system	Arati kurde, and Prof V. S. Kulkarni. "A Review on IOT Based Energy Monitoring and Controlling System." International Journal of Innovations in Engineering Research and Technology, 2016, pp. 1-5. [UGC Approved]
8.	Test Automation Tool for Electronic Control Unit's Software Testing	Bhide, R. M., Raut, P., Jadhav, R. S., Kulkarni, V. S., & Tade, S. L. (2016). Test Automation Tool for Electronic Control Unit's Software Testing. International Journal of Scientific and Engineering Research, 7(4), 1208-1210
9.	A Wideband Variable_ Gain Amplifier for High Frequency Applications	Waghmode, Sourabh & Kulkarni, V.S. (2020). A Wideband Variable-Gain Amplifier for High Frequency Applications. International Journal of Recent Advances in Engineering & Technology. 08. 16-21.DOI:10.46564/ijraet.2020.v08i05.005 [UGC Approved]
10.	Appearance based recognition of American sign language using gesture segmentation.	Kulkarni, V. S., & Lokhande, S. D. (2010). Appearance based recognition of American sign language using gesture segmentation. International Journal on Computer Science and Engineering, 2(03), 560-565. [UGC Approved]

11.	Designing of RGB Color Detector	Binnar, T. K., Deoghare, D. D., Patil, P. N., & Kulkarni, V. S. (2014). Designing of RGB color detector.Red,630,780. [UGC Approved https://www.academia.edu/100146809
12.	Fire Detection using ANN	Memane, S. E., & Kulkarni, V. S. (2016). Fire Detection using ANN. International Journal of Computer Science and Mobile Computing, Vol.5 Issue.1,pg.191-197 https://ijcsmc.com/docs/papers /January2016/V5I1201631.pdf [UGC Approved]
13.	Review of Digital System Access Remotely for FPGA Lab	Anjali S.Wasu, Kulkarni V.S. (2015); Review of Digital System Access Remotely for FPGA Lab Int. J. of Adv. Res. 3 (May). 575-579] (ISSN 2320-5407). www.journalijar.com [UGC Approved]
14.	Disease detection by using image processing	RUPALI MISAL, & V. S. KULKARNI. (2021). DISEASE DETECTION BY USING IMAGE PROCESSING. JournalNX - A Multidisciplinary Peer Reviewed Journal, 57–61. Retrieved from https://repo.journalnx.com/index.php /nx/article/view/2627
15.	An Efficient MEMS Sensor Modelling by Geometrical Parameter Optimization	Kulkarni, V. S., & Chorage, S. S. (2022). An Efficient MEMS Sensor Modelling by Geometrical Parameter Optimization. International Journal of Electronics and Telecommunications, 287-291. DOI: 10.24425/ijet.2022.139880.[SCOPUS INDEXED -Q3]
16.	Design Optimization of a Capacitive Sensor for Mass Measurement of Nanometer-Sized Exhaust Carbon Particles	Kulkarni, V. S., & Chorage, S. S. (2023). Design Optimization of a Capacitive Sensor for Mass Measurement of Nanometer-Sized Exhaust Carbon Particles. Proceedings of Engineering and Technology Innovation,24,53-62. DOI:https://doi.org/10.46604/peti.2023.10200. [SCOPUS INDEXED -Q3]
17.	Impact of Design Dimension Optimization on Capacitive Sensor Performance for Particulate Matter Detection and Measurement	Kulkarni, K. V., & Chorage, S. S. (2024). Impact of Design Dimension Optimization on Capacitive Sensor Performance for Particulate Matter Detection and Measurement. Nigerian Journal of Technological Development, 21(3), 10-19. https://journal.njtd.com.ng/index.php/njtd /article/view/2260.[SCOPUS INDEXED -Q3]
18	SENSING AND SIMULATION SYSTEM AND METHOD FOR EXHAUST AIR PARTICULATES EXHAUSTING FROM A DEVICE	Patent Granted: Dec. 2023 2023/12/18, IN, 483975 20222102769

Books Published

Sr. No.	Title	Publisher & Year
1	--------	----------

Conferences / Seminars Attended

Sr. No.	Conference/Seminar	Year

Awards & Recognitions

Sr. No.	Award/Recognition	Year
1.	**Certificate of Merit:** ANN based American Sign Language Recognition	University Level Research Project Competition For UG/PG/Doctoral Students. (AVISHKAR-2009), Board of College and University Development Board (BCUD),30th-31th Dec.2009.
2.	**Best Paper Award**: A Wide band Variable-Gain Amplifier for High Frequency Applications	IETE (Institute of Electronics and Telecommunication Engineering) Approved, 4Th National Conference on Advancement in Communication, Computing and Electronics Technology (ACCET 2007),2nd- 3rd March 2017.Modern Education Society's College of Engineering, Pune.
3.	**Certificate of Appreciation:** EEEC Initiatives-Nov 2020	Valued contribution to CEFS Corporate Initiative Team with Enthusiasm and Zeal to Make a Difference Through EEEC Initiatives. [CRTI: Cummins Emission and Fuel Systems]-2020
4.	**Certificate of Appreciation:** 1 Week FDP on "Machine Learning & Deep Learning using Python" SCTR's PICT	Contribution as Organizing Committee Member for 1 Week FDP Association with AICTE Training & Learning Academy (ATAL): 04-08 Jan 2022
5.	**Certificate of Appreciation:** Impetus and Concepts'22: SCTR's PICT	Organizing Team Member: An international Level Technical Symposium-5-7 April 2022
6.	**Recognition:** Remarkable Contribution as an author to IEEE Publications	Commemorating International Women's Day Celebrations-5th March 2024-AISSMSIOIT Pune
7.	**Certificate of Excellence in Reviewing**	Journal of Engineering Research and Reports, Date: 25.09.2024

Areas of Interest

Sr. No.	Area
1	Signal Processing, Video Processing
2	AI/ML
3	Semiconductor Fabrication
4	MEMS Sensors
5.	Automotive sensors
6.	Artificial Neural Network