

## Somaiya Vidyavihar University

Name: Dr. Sandeep Ramesh Sainkar			E-mail:sandeepsainkar@somaiya.edu		
Contact No: 8652457281/ 022-66449308					
Department/Section: Electronics & Telecommunication Engineering					
College: K J Somaiya School of Engineering					
DOJ Somaiya:13/07/2007		Career Experience: 22 Yrs		Industry Experience: 1Yrs	
				Teaching Experience: 21 Yrs	
Present Academic Designation: Assistant Professor			Present Administrative Designation:		

<b>Area of research/specialization and Courses Delivered</b>
<p>Research domain/interests/areas</p> <ol style="list-style-type: none"> <li>1. Microstrip Antennas</li> <li>2. RF/Microwave Electronics</li> <li>3. Analog Electronics</li> <li>4. Electromagnetics</li> </ol> <p>Courses Delivered</p> <ol style="list-style-type: none"> <li>1. Basic Electronics Circuits</li> <li>2. Analog Electronics</li> <li>3. Electromagnetic field theory</li> <li>4. Communication Systems</li> <li>5. Microprocessor and Microcontroller</li> <li>6. RF Modeling and Antennas</li> <li>7. Television Engineering</li> <li>8. Microwave Engineering</li> <li>9. Broadband Communication</li> <li>10.Theory of Automata</li> <li>11.Telecom network management and design</li> </ol>

Recognition as a teacher by any University	UG: Yes	PG:	Ph.D :
<p>Details of Recognitions</p> <ol style="list-style-type: none"> <li>1. Mumbai university Concol letter no. CONCOL/SA/1000/2009 dated March 12,2009</li> </ol>			

<b>Education</b>					
Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D	Ph.D. (Electrical Engg.)	Mumbai	Veermata Jijabai Technological Institute (VJTI), Mumbai	2022	
PG	M.Tech. (Electronics Engg.)	Mumbai	Veermata Jijabai Technological Institute (VJTI), Mumbai	2011	8.7 CPI
UG	B. E. (Electronics Engg.)	Mumbai	Vivekanand Education Societys' Institute of Technology (VESIT), Mumbai	2002	60.80 %

## Somaiya Vidyavihar University

Diploma	-	-	-	-	
NET/SET/Other	-	-	-	-	

Notable Experience Details					
Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.	Fr. C. R.I.T., Vashi	Lecturer	20/01/2004	12/07/2007	3.5
2.	K J Somaiya School of Engineering	Assistant Professor	13/07/2007	Till date	18

Research Accomplishments and Projects		
No of students pursuing Ph.D as on date: NIL		No of students completed Ph.D as on date:
No of students completed PG thesis / Project work as on date: NIL		No of students / groups completed UG projects as on date: 15
Publications Total: 13	Number of Peer review Journal papers: 5	Number of Conference papers: 8

Details of Publications:  
International Journals

1. Ameya Vaidya, Kaushik Tvsnd, Antariksh Kalantari, **Sandeep R. Sainkar**, "Compact CSRR Based Sensor for Detection of Impurities in Liquid Samples," Sensing and Imaging, Springer Nature, <https://doi.org/10.1007/s11220-025-00583-9>, Vol. 26, 52 April 2025. (**Scopus Indexed, IF: 1.5**)
2. **Sandeep R. Sainkar**, Anudeepa S. Kholapure, Makarand G. Kulkarni," Design of GaN-based Phase-Locked Dielectric Resonator Oscillator for Strategic Applications" , Jordan Journal of Electrical Engineering (JEE), <https://doi.org/10.5455/jjee.204-1738563761> pp. 365-379, Vol. 11/ 2, June 2025 (**ESCI and Scopus Indexed, IF: 0.7**)
3. **Sandeep R. Sainkar**, Aviraj Jadhav, Alice N. Cheeran, J. John, Promod K. Sharma, Harish V. Dixit, "Design of a 3.7 GHz, 1 kW CW, Hybrid Radial Power Divider for LHCD System of SST-1 Tokamak Fusion Engineering and Design, Elsevier, <https://doi:10.1016/j.fusengdes.2021.112864>. vol. 173 ,112864, Sep. 2021, (**ESCI and Scopus Indexed, IF: 1.692**)
4. **Sandeep R. Sainkar**, Alice N. Cheeran, Promod K. Sharma, Harish V. Dixit "Design of the 3.7 GHz, 1 kW CW solid state driver for LHCD system of the SST-1 tokamak", Fusion Engineering and Design,Elsevier,<https://doi.org/10.1016/j.fusengdes.2020.111692>, ISSN 0920-3796, vol. 158, April 2020 (**ESCI and Scopus Indexed, IF: 1.692**)
5. **Sandeep R. Sainkar**, Amutha Jeyakumar, "Design analysis Of Broadband Circularly Polarized Compact Microstrip Antenna For Wireless Applications", International Journal of Electronics & Communication Technology (IJECT), Vol. 2, Issue 2, June 2011.

National Journals  
NIL

Conferences

1. **Sandeep R. Sainkar**, Alice N. Cheeran, Promod K. Sharma, Harish V. Dixit, "Performance Evaluation of a 3.7 GHz, 1 kW CW solid state source for LHCD system of the SST-1 tokamak", in 47th IEEE International conference on Plasma Sciences(ICOPS 2020),

2. **Sandeep R. Sainkar**, Alice N. Cheeran, Gajendrakumar Shinde, Promod K. Sharma, Harish V. Dixit, “Practical Considerations for the design of 3.7 GHz CW Power Amplifier”, 2020 IEEE International RF and Microwave Conference (RFM-2020), <https://doi.org/10.1109/RFM50841.2020.934475314-16> December 2020. (**Scopus Indexed**)
3. **Sandeep R. Sainkar**, Amutha Jeyakumar, “Design Analysis and Testing of Broadband Circularly Polarized Compact Microstrip Antenna for Wireless Applications”, 2011 International Conference on Signal Processing, Communication, and Networking technologies (ICSSN 2011), Nooral Islam centre for Higher Education, Kumaracoil, Tamilnadu , <https://doi.org/10.1109/ICSCCN.2011.6024517>, 20-21 July, 2011. (Scopus Indexed)
4. **Sandeep R. Sainkar**, Snehal D., Harish V. Dixit , Alice N. Cheeran, Promod K. Sharma , “Efforts In Indigenous Design And Development Of High Power Microwave Devices” , jointly organised by Institute for Plasma Research Gandhinagar and Nirma University Ahmedabad, NFP-PFRC (NPVM-2018}, 24- 26 April 2018.
5. **Sandeep R. Sainkar**, Alice N. Cheeran, Promod K. Sharma, Harish V. Dixit , “Design Of A 3.7 GHz Oscillator For The Solid State Drive Of The LHCD System”, 32<sup>nd</sup> National Symposium on Plasma Science & Technology (PLASMA 2017), 7-10 November 2017.
6. **Sandeep R. Sainkar**, Amutha Jeyakumar, “Analysis of Circularly Polarized Compact Microstrip Antenna For Broadband Applications”, at National Conference ETCC- 2010, organized by Medicaps Institute Of Technology and Management, Indore from 19-20<sup>th</sup> November 2010.
7. **Sandeep R. Sainkar**, K T V Reddy, “Analysis of single fed gap coupled CP Microstrip antenna for broadband applications”, at National Conference NCICT-2006, organized by D.J.Sanghvi College of Engineering, Vileparle from 1-3<sup>rd</sup> March 2006.

#### Books/Book Chapters

1. R. Nandita Srivatsan, Niyati A. Rolia, Gurveer Singh Bharj, **Sandeep Sainkar**, Sudha Gupta, Kavita Kelkar, “ Design and Development of Drip Monitoring of IV system”, (2025) Technologies for Energy, Agriculture, and Healthcare (1st ed.). pp 424-432, CRC Press. <https://doi.org/10.1201/9781003596707> (**Scopus Indexed**)

#### Patents/Copy Rights

1.

No of Research / consultancy / projects completed: 3 Rs: 35000/-, Rs. 24.2 lacs	No of Research / consultancy / projects on-going: Rs:	No of Research / consultancy / projects on applied as on date: Rs:
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#### Details of Research / consultancy / projects: Completed

1. “**Design and development of active & passive devices for enhancement of Antenna & Microwave laboratory facility**”, Principal Investigator, Minor research grant sanctioned by University of Mumbai for the financial year 2016-17. (**Status-completed**)
2. “**Design and development of 3.7 GHz 1 kW CW solid state driver for the LHCD system**”, Co-principal Investigator, Major research grant sanctioned by BRNS, DAE for the financial year 2018-19. (**Status-completed**)

## Somaiya Vidyavihar University

<p>3. <b>“Design and development of Radial power combiner and divider for high power microwave applications”</b>, Principal Investigator, Minor research grant sanctioned by University of Mumbai for the financial year 2019-20. <b>(Status-completed)</b></p> <p>On-going</p> <p>Applied</p>
<p>IPR/ Copyrights</p> <p>1.</p>

<b>FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered</b>
<p>Attended</p> <ol style="list-style-type: none"> <li>1. Attended a three day workshop on “Atma-Nirbhar Bharat:Space and Defense” Funded by AICTE-VAANI, organised by K J Somaiya Institute of Technology, Sion, Mumbai from 08 July 2024 to 10 July 2024.</li> <li>2. Attended one week Short Term Training Program on “Digital Pedagogy: ICT &amp; AI assisted teaching in-line with OBE &amp; NEP” Internal Quality Assurance Cell (IQAC)of St. James College of Nursing and St. James College of Pharmaceutical Sciences, Chalakudy in association with The Kerala State Higher Education Council (KSHEC) from 29 May 2024 to 05 June 2024</li> <li>3. Attended a workshop on “ELECTROMAGNETICS AND MICROWAVE ENGINEERING: PEDAGOGY, RESEARCH TRENDS AND APPLICATIONS (EMPRA 2023)”, organized by BITS-Pilani , Hyderabad, 01-03 November, 2023</li> <li>4. Attended a workshop on “ELECTROMAGNETICS AND MICROWAVE ENGINEERING: PEDAGOGY, RESEARCH TRENDS AND APPLICATIONS”, organized by BITS-Pilani , Hyderabad, 02-04 January, 2020</li> <li>5. Attended one week workshop on “Practical RF / Microwave Active Circuit Design ”BITS-Pilani, Hyderabad, January 02 – January 06 , 2019</li> <li>6. Attended one week Short Term Training Program on “Active RF and Microwave Circuit Design” , R.V. College of Engineering, Bangalore, February 26 – March 03, 2018</li> <li>7. Attended one week AICTE sponsored QIP Short Term Training Program on “Antenna, RF and Microwave System Design” ,VJTI Mumbai, March 08 – 13 , 2016</li> <li>8. Attended two day Workshop on ADS Software at KJSCE, Vidyavihar, EXTC Dept., 18<sup>th</sup> – 19<sup>th</sup> April 2014</li> <li>9. Attended two week Short Term Training Program on “Materials Engineering And Industrial Application: Hybrid Nano Composites For Photonics, Energy And Electronic Devices” organized by Material Science Centre, IIT Kharagpur, November 11 – 22 , 2013</li> <li>10. Attended a two week ISTE workshop on “Introduction to Research Methodologies” conducted by IIT-Bombay, MHRD at K.J.Somaiya College of Engineering during 25 June-04 July 2012</li> <li>11. Attended a two day workshop on “Writing Effective Conference Paper” conducted by IIT Bombay, at K.J.Somaiya College of Engineering during 18- 19 Feb 2012.</li> <li>12. Attended one week Short Term Training Program on “Upcoming trends in Microwave Engineering”, organized by KJSCE, Vidyavihar, Mumbai, January 2009.</li> </ol>

## Somaiya Vidyavihar University

### Organized

1. Organised one week Faculty Development Program on “**Transforming Ideas into RF Reality: Simulation- driven Design and Testing for Antenna and RF Components**”, at KJSCE, Vidyavihar, Mumbai, 16- 20 December, 2024.
2. Organised one week Short Term Training Program on “**Internet of Things: A Multidisciplinary Approach for Future Innovations**”, at KJSCE, Vidyavihar, Mumbai, 02- 06 January, 2023.
3. Organised one week Short Term Training Program on “Advances in Antenna & MMIC/RFIC Design”, at KJSCE, Vidyavihar, Mumbai, 24<sup>th</sup> - 28<sup>th</sup> Jun, 2013.
4. Organized workshop on NEC open source antenna software for KJSCE EXTC students, 2<sup>nd</sup> Feb, 2013

### Delivered

1. Hands-on session on “High Gain Amplifier design” at FDP organized by K. J. Somaiya College of Engineering, Vidyavihar, 16th December, 2024.
2. Delivered lecture on “Active RF Devices for IOT applications”, at STTP organized by K. J. Somaiya College of Engineering, Vidyavihar, 04th January, 2023
3. Delivered lecture on “ Microwave Amplifier Design Considerations-a Practical approach”, at STTP organized by K.. J. Somaiya Institute of Engineering and Technology, Sion, 04th July, 2019
4. Delivered lecture on “Design Considerations of RF/Microwave active devices”, at STTP organized by BITS-Pilani , Hyderabad, 03<sup>rd</sup> January, 2019
5. Delivered lecture on “Design and Simulation of RF active devices using AWR Microwave office” at BITS-Pilani , Hyderabad, 17<sup>th</sup> Nov, 2018

### Notable Key Scholastic Achievements

- |    |   |
|----|---|
| 1. | Successfully completed the major research project funded by BRNS, DAE |
| 2. |   |

### Notable Positions and Responsibility

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|----|---|
| 1. | Worked as Department Exam cell committee member               |
| 2. | Worked as Department Placement and Internship Coordinator     |
| 3. | Worked as Department Timetable committee member               |
| 4. | Working as OE coordinator at department and institute level   |
| 5. | Working as Task force member for NEP at SVU campus level      |
| 6. | Working as Department Thrust area coordinator                 |
| 7. | Working as Department Laboratory Development committee member |
| 8. | Working as Department R & D committee member                  |
| 9. | Working as Department NISP committee member                   |

**Date: 05 /08 /2025**

**Signature of Faculty Member**

