

# Somaiya Vidyavihar University Mumbai

Faculty of Engineering and Technology

K J Somaiya School of Engineering

## Curriculum Vitae

Dr. Sudha R Gupta

Professor in Electronics Engineering Department, and

Associate Dean of Students Affairs

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**e-mail id :** sudhagupta@somaiya.edu



### Educational Qualifications:

Degree	Year of Passing	Institute , University	Field of Specialization	% Marks / GPA Obtained
Ph.D. in Technology	April 2017	V.J.T.I., Mumbai -19, Mumbai University, India	Electrical Engineering	Thesis Awarded on 10 <sup>th</sup> April 2017
ME Electronics	June 2001	V.J.T.I., Mumbai -19, Mumbai University, India	Electronics Engineering	65%
BE electronics Engineering	June 1993	Govt. Engineering college, Vikram University, Ujjain M.P. India	Electronics Engineering	75.6%

**PhD Thesis Title:** Analysis and prediction of cascade failure in Power transmission system

**Professional Experience:** Teaching: 28 years, Industry 1 Year & 1 Month

Name of the College	Designation	Duration
KJ Somaiya school of Engineering	Professor	July 2020 to till date
K. J. S. C. E. Vidyavihar Mumbai.	Associate Professor	2 <sup>nd</sup> January 2004 to June 2020
A.C. Patil college of Engineering Koperkhairane Navi Mumbai.	Lecturer	From 11 <sup>th</sup> February 1997 to 1 <sup>st</sup> January 2004
Govt. Engineering College Bhopal .	Lecturer	11 July to 31 <sup>st</sup> December 1995
Philips Bhopal (M.P.)	Customer Support Eng.	1 <sup>st</sup> Oct.1993 to 16 <sup>th</sup> Nov.1994

### **Area of specialization:**

Artificial Intelligent, soft computing, Machine learning, Internet of Things, computer networks, Digital Image Processing, Wireless communication and networking, Data communication & Networking, Digital communication and coding Techniques

**Publications ID:** Academic Identity: SVU Vidvan scholar id [somaiya.irins.org/profile/477684](https://somaiya.irins.org/profile/477684) (my name mentioned in top 10 researchers) Orcid Id- 0000-0002-7324-6269, Scopus Id - 56488899200, Researcher Id - W-2336-2019 Google Scholar Id - 4YJbhBYAAAJ,

### **Participation in professional committees/organizations/ Universities:**

- BoS Member at ECS department, SIESGST Navi Mumbai (July 2024 to till date)
- Worked as member board of studies University of Mumbai in electronics engineering for six years (September 2006 to November 2012)
  - Life Member of IETE, since 1998
  - Life Member of Indian Society of Technical Education, New Delhi, India, since 2004

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## ❖ Academic Activities:

### **Mumbai University UG/PG./ Ph.D. Approval:**

Recognised teacher for UG since:	1998 approval as a lecturer in Electronics Engg. 2004 approval dated 18/10/2006 as an Asst. Prof. in Electronics Engineering.
Recognised teacher for PG since:	2012 approval in Electronics Engineering dated 2/5/2012.
Recognised teacher for PhD since:	2017 Mumbai university approval of PhD Guide In Electronics Engendering dated 14/9/17.
Somaiya Vidyavihar University:	2020 approval of PhD Guide in Electronics Engineering Approved PhD guide Electronics and Telecommunication Engineering in SVU Mumbai.

## Research and Publications:

**Patent and Copyright :** A Suture device, Patent No. 459434 dated 16-10-2023. Copyright in pipelining.

**Paper published:** 69+ (Peer reviewed journal publication-17), + Journal under review-04, 03 papers submitted in international conferences).

Paper published in IEEE Transactions, IEEE letters, Elsevier, springer, inderscience Journal, Progress In Electromagnetics Research, IEEE international conference, international journal, Journal of The Institution of Engineers, Wireless Personal Communications, International Journal of Communication Systems, Cognitive Neurodynamics, Springer, Health Information Science and Systems, Springer, IEEE international conferences etc ...

- Book/Book chapter/Book review: 5
- Poster Presentation: 3
- Research Proposal: completed 02, ongoing 02, Submitted-04
- STTP/workshop Organised: 14 (Technical-7 and 7 Social initiatives)
- STTP/FDP/Workshop Attended: 40

### **Publications ID:**

Academic Identity: SVU scholar id somaiya.irins.org/profile/477684

Orcid Id- 0000-0002-7324-6269,

Scopus Id - 56488899200

Researcher Id - W-2336-2019

Google Scholar Id - 4YJbhBYAAAAJ

### **Project Guided/On Going**

**UG:** Guided: more than 70, Ongoing:04

**PG:** Guided: 20, Ongoing: 01

**PhD:** Completed 1, about to complete-02

Ongoing: 04

### **Interaction with Research association:**

Working as a reviewer for Transactions/Journal and International conferences such as IEEE Access, IEEE PES Letters, IET GT&T, IEEE Trans on Neural Network and learning system, IEEE Transactions on Human Machine Systems, IEEE Transactions on Industrial Informatics, IEEE Journal on Emerging, IET Journal, IUCEE, international conferences etc.

## ❖ **Role Played in the College/University Administration**

# **Somaiya Vidyavihar University Mumbai**

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### **University level:**

- Chairperson of SVU-Students Grievances Redressal Committee, (Feb 2024 to till date)
- Member of SVU University cultural committee UCC (from July 2023 to June 2023)
- Member of SVU-Students Welfare Committee, (July 2024 to till date)
- Member of SVU-University Electoral Literacy Club (from May 2023 to till date)
- Organising team member for SVU Convocation: member of welcome and student protocol committee member + SVU cultural program as and when required (from 2023 to till date)
- Organising team member for AIU meet: Convenor for cultural event for AIU (West Zone) Vice Chancellors' Meet in 19th & 20th Dec. 2023
- NAAC 2024: Convenor for SVU students cultural program during NAAC visit (24th Oct 2024)
- Core organising committee member for Somaiya All Alumni Meet program on 18th Jan 2025

### **College level:**

- Dean of Students Affairs, KJSCE Mumbai University (July 2008 to June 2011)
- Associate HoD of ETRX Department (July 2011 to Dec 2011)
- Dean of Students Affairs KJSCE (Autonomous ) (July 2017 to June 2021)
- Associate Dean of Students Affairs KJSCE Somaiya Vidyavihar University (July 2021 to till date)
- Active member of KJSCE convocation and FY orientation team (2017 to till date)
- Coordinator of KJSCE Social initiative Parvaah activities ((2017 to till date )
- Member of KJSCE students grievance redressal committee (from 2017 to till date)
- Admission Committee: Coordinator Publicity and Social media Committee (Jan 2020 to till date)
- Admission committee: Coordinator of Financial Aid committee (from 2021 to till date)
- CSR Scholarship Coordinator, (Blue star and JSW) (from July 2017 to till date)
- Proctor General (from 2008 to 2011 and from July 2017 to till date)
- NAAC 2024: Reviewer for Criterion5: Student Support and Progression
- Organised Workshop on meditation on music, Art of self healing, diabetic health checkup, eye checkup, tree plantation drive for faculty, staff and students and faculty picnic.

### **Department level:**

- BoS member of ETRX Department (from 2018 to till date)
- Department Publicity Committee (from 2020 to till date)
- Member Women's Development Cell (from Jan 2025 to till date)
- Team member of BOS/FOET MoM and PPT– ATR preparation committee (from 2023 to till date)
- Departmental Planning committee (from 2018 to till date)
- Department Academic Committee (from 2018 to till date)
- ETRX B.E. project coordinator (2006 to 2011)
- ETRX MTech Coordinator (from July 2011 to June 2023)
- ETRX Ph.D Coordinator (From July 2024 to till date)
- Coordinated 11 industrial visit outside and within Mumbai for the students under department EESA activity
- Organised 7 short term training program (2006 to 2019)
- Nurturing research culture among the students by floating projects, offering internships and guiding in writing high quality technical Papers. This resulted in publication of technical papers in international conferences and journals by UG/PG students.

## **Publication Details**

### **Peer reviewed Journals**

1. **Sudha Gupta**, F. Kazi , S. Wagh, N. Singh “N.M.Singh “Analysis and Prediction of Vulnerability in Smart Power Transmission System: A Geometrical Approach” **Elsevier journal of electrical power & energy systems**, Vol. 94, pp. 77-87, January 2018.  
ISSN: 0142-0615 (UGC Care list Group-II, SCI indexed and Scopus SCI indexed)
2. **Sudha Gupta**, Sushama Wagh, and Faruk Kazi, “Support Vector Machine based Proactive Cascade Prediction in Smart Grid using Probabilistic Framework” **IEEE Transactions on Industrial Electronics**, Vol.62, issue-4, pp. 2478-2486, April 2015. ISSN: 0278-0046  
UGC Care list Group-II, SCI Index and Scopus Index
3. **Sudha Gupta**, Faruk Kazi , Sushama Wagh, Navdeep Singh , “Augmenting WAMPAC with machine learning tools for early warning and mitigation of blackout events”, **Inderscience Journal of Humanitarian technologies**, UK, Vol.1, Issue1, pp 83-100 March , 2018.  
(Scopus indexed)
4. K Parvathi, **S. R. Gupta**, “Ultra- high Sensitivity and Compact EBG based Microwave Sensors for liquid Characterization” **IEEE Sensors Letters**, March 2022. ISSN: 2475-1472.  
UGC care list Group-II (Scopus indexed)
5. K Parvathi, **S. R. Gupta** “A Novel Compact Electromagnetic Band Gap Structure to Reduce the Mutual Coupling in Multilayer MIMO Antenna” **Journal Progress In Electromagnetics Research** M Vol. 94, 167-177, 2020.doi:10.2528/PIERM20051805 ISSN: 1937-8726  
( UGC Care list Group-II Scopus indexed)
6. Kompella S. L. Parvathi, **Sudha R. Gupta**, “Novel Dual Band EBG Structure to Reduce Mutual Coupling of Air gap based MIMO Antenna for 5G Application” **Elsevier Int. J. Electron. Commun. (AEU)**, August 2021 Volume 138, August 2021, 153902. ISSN: 1434-8411 (UGC Care list Group-II, SCI Indexed and Scopus)
7. Kompella S. L. Parvathi, Sudha R. Gupta “A Novel Multilayer EBG Structure To Reconfigure The Band-Notch Of UWB Monopole Printed Antenna,” **Progress In Electromagnetics Research C** August 2021.  
ISSN:1937-8718 (UGC Care list Group-II Scopus indexed)
8. Kompella S. L. Parvathi, **Sudha R. Gupta** “Two-channel Dual-band Microwave EBG Sensor for Simultaneous Dielectric Detection of Liquids” **AEU - International Journal of Electronics and Communications, Elsevier's**, Volume 146, March 2022, 154099. ISSN: 1434-8411  
UGC Care list Group-II, SCI Indexed and Scopus indexed).
9. Kompella S. L. Parvathi, **Sudha R. Gupta** “Ultrahigh-Sensitivity and Compact EBG-Based Microwave Sensor for Liquid Characterization” **IEEE sensors letters** VOL. 6, NO. 4, April 2022, E-ISSN: 2475-1472  
(Q2, impact factor 2.2 Scopus indexed)
10. S. Mane, M. Kulkarni, and **S. Gupta**, "Effectiveness of multilayer perceptron for indoor localization in Wi-Fi enabled IoT environments," *Journal of The Institution of Engineers (India): Series B*, pp. 1–13, 2024.
11. S. Mane, M. Kulkarni, and **S. Gupta**, "Hyperparameter optimization for indoor localization in Wi-Fi IoT application," *Wireless Personal Communications*, pp. 1–29, 2024.
12. S. Mane, M. Kulkarni, and **S. Gupta**, "RSSI-based indoor distance estimation in Wi-Fi IoT

application using AI approaches," *International Journal of Communication Systems*.

13. S. Mane, M. Kulkarni, and **S. Gupta**, "Distance estimation in Wi-Fi environments using particle swarm optimization, RSSI and path loss model," *International Journal of Communication Systems*.
14. **Sudha Gupta** , Ravindra Salvi , Deepak Sharma , Sonali Patil , H. N. Bharathi , Swati Mahajan , Manoj Palsodkar , "Need Based Students' Scholarship: PUSH KJSCE - A Success Story", *Journal of Engineering Education Transformation (JEET)* Volume 33, Special Issue, ICTIEE 2020, January 2020 pp 275-2279. (Scopus indexed)
15. **Sudha Gupta**, Faruk Kazi, Sushama Wagh, Ruta Kambli, "Neural Network based Early Warning System for an Emerging Blackout in Smart Grid Power Networks", *Intelligent Distributed Computing*, **Springer International** Publishing, Switzerland, Vol. 321 , pp 173-183 2015. (SCI listed).
16. Indu Dokare and **Sudha Gupta** "Brain-region specific epileptic seizure detection through EEG dynamics: Integrating spectral features, SMOTE and long short-term memory networks" *Cognitive Neurodynamics*, Springer, Cogn Neurodyn 19, 67 (2025), pp 1-25  
<https://doi.org/10.1007/s11571-025-10250-0>
17. Indu Dokare and **Sudha Gupta** "Optimized seizure detection leveraging band-specific insights from limited EEG channels" *Health Information Science and Systems*, Springer. 19th March 2025. Volume 13, article number 30, (2025), ISSN 2047-2501
18. Indu Dokare and Sudha Gupta "SHAP-driven explainable AI with simulated annealing for optimized seizure detection using multichannel EEG signal", *Cognitive Neurodynamics*, Springer, June 2025, ISSN 1871-4099.

#### **IEEE Xplore digital library/International conference**

19. **Sudha Gupta**, Sumit Wagmare, Faruk Kazi , Sushama Wagh, Navdeep Singh, " Blackout Risk Analysis in Smart Grid WAMPAC System Using KL Divergence Approach" in proceeding, ICPS 16, **IEEE International conference** on power system, IIT Delhi}, 4-7 March 2016.
20. **S.R. Gupta**, F.S. Kazi, S.R. Wagh, and N.M. Singh, "Probabilistic framework for evaluation of smart grid resilience of cascade failure", **IEEE Innovative Smart Grid Technologies Conference (ISGT) Asia , Kuala Lumpur, Malaysia**, 20 – 23 May 2014, pp 255-260.
21. Sarika Mane, Makarand Kulkarni, and **Sudha Gupta**, "Energy Prediction for Efficient Resource Management in IoT-Enabled Data Centres," in *Technologies for Energy, Agriculture, and Healthcare*. International Conference on Technologies for Energy, Agriculture, and Healthcare (ICTEAH 2024), Mumbai. 15<sup>th</sup> -16th April, 2024, Publisher: CRC Press, Taylor & Francis, ISBN: 978-1-032-98025-6, Pages: 158-166.
22. Sarika Mane, Makarand Kulkarni, and Sudha Gupta, " Particle Swarm Optimization Driven Failure Prediction In Industrial Internet of Things" in *3rd International Conference on Advanced Communication and Intelligent Systems (ICACIS 2024)*-Delhi, 16 - 17 May 2024, (Scopus Indexed Springer CCIS Series )
23. Sarika Mane, Makarand Kulkarni, and **Sudha Gupta**, "Ant Colony Optimization Driven Failure Prediction in Industrial Internet of Things" in *IEEE 2nd International Conference on Emerging Trends in Engineering and Medical Sciences(ICETEMS 2024)*, 22 - 23 November 2024 .

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24. Indu Dokare and **Sudha Gupta**, “Multiband feature fusion for patient-non-specific seizure detection using multichannel EEG signals”, **presented** at 6th International Conference on Communication and Intelligent Systems (ICCIS 2024), 8-9th Nov. 2024.
25. Lipy Kothari, Nishtha Kumar, Payal Varangaonkar, **Sudha Gupta**, Snehal Shinde” A Comprehensive Framework for Cotton Crop Soil Moisture Evaluation Through Traditional Techniques, Sensor Networks and Remote Sensing” **IEEE International Conference** on Emerging Trends in Industry 4.0 Technologies 2025 SIES Mumbai.
26. Parthiv, Sudha , Ayesha, “IoT-Enabled Medical Waste Segregation Bin with Dynamic Sectioning and Automated Classification” **IEEE 2025** Global Conference in Emerging Technology (GINOTECH), Pune, India. May 09 - 11, 2025
27. Sarika Mane, Makrand Kulkarni and **Sudha Gupta** “Particle Swarm Optimization Driven Failure Prediction In Industrial Internet of Things”, 3rd International Conference on Advanced Communication and Intelligent Systems May 16-17, 2024, Jawaharlal Nehru University, New Delhi.
28. Kompella S. L. Parvathi, **Sudha R. Gupta** “Reduction of Mutual Coupling in MIMO Printed Antenna using Multilayer EBG Structure”, **IEEE International Conference** on Communication, Information and Computing Technology (ICCICT-2021), 25th -27th Jun. 2021, Sardar Patel Institute of Technology., Mumbai, India June 2021.
29. Sakshi Gunde, **Sudha Gupta** and Annu Abraham, “Evolution of technical advents in Fundus Camera to detect Diabetic Retinopathy, “ in **IEEE International Conference** on Convergence to Digital World-Quo Vadis (ICCDW 2020), Mumbai, 19th Feb 2020.
30. Sakshi Gunde, **Sudha Gupta** and Annu Abraham, “Diabetic Retinopathy detection using non-mydratic fundus images in V-C MT *International multi-disciplinary conference on Health care management*, Mumbai, 8th Feb 2020.
31. Amruta Hebli, **Sudha Gupta**, “Brain Tumor detection and classification using SVM”, **IEEE 2017 International Conference** on Advances in Computing, Communication and Control (ICAC3’ December 2017), Fr. Agnel Bandstand, Bandra, Mumbai, India. pp 1-6
32. Shashank Tiwari, Akshay Bharadwaj and Sudha Gupta, “Stock price prediction using data analytics”, ” **IEEE 2017 International Conference** on Advances in Computing, Communication and Control (ICAC3’December 2017) , Fr. Agnel Bandstand, Bandra, Mumbai, India.
33. Swati H. Bhandarkar and Sudha Gupta “Comparative analysis of retinal anatomy detection” **Asian conference of recent advances in science, engineering and technology.**, Pune August 2019 PP1-6
34. Nilesh Jondhle and Sudha Gupta “Reading text extracted from an image using OCR and android Text to Speech” International Journal of Latest Engineering and Management Research, Volume 03 - Issue 04, April 2018, PP. 64-67
35. Dimpal Sutar, and **Sudha Gupta**, “A Survey On Differentiated Service Architecture For The Internet”, Int. conference on Recent and Innovation Trends in Computing & Communication, S.L.R. Tiwari college of Engineering Mumbai, 4th and 5th March 2017 , PP: 300–304.
36. Dimpal Sutar and **Sudha Gupta** “A QoS solution for Named Data Networking Using Differentiated Service Architecture”, IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), August 2017, C. V. Raman College of Engineering, Bhubaneswar, Odessa, India.

37. **Sudha Gupta**, Viral Doshi, Abhinav Jain, Sreeram Iyer, “Iris recognition system using biometric template matching techniques,” International Journal of Computer Applications , pp. 1-4, ISBN: 978-93-80746-01-2, Feb, 2010. ( Scopus indexed)
38. Hamish Dsouza and **Sudha Gupta**, “ A study in change detection in Vegetation cover in an urban environment: A Multi-spectral, Multi-Temporal analysis of Mumbai suburban District using remote sensing” Journal of Agroecology and Resource management, Volume 3, Issue 2, July-September 2016 pp. 136-139.
39. H. Dsouza and **S. Gupta**, “Mapping Sugarcane cultivation in Adamantina, Sao Paulo using remote sensing: A multi-temporal approach,” in ISRS-ISG National Symposium on Recent Advances in Remote Sensing and GIS with Special Emphasis on Mountain Ecosystems, Dehradun, 2016. Organised by Indian Society of Remote Sensing and Indian Society of Geomatics from 7 to 9 December 2016 at Indian Institute of Remote Sensing, Dehra Dun. Abstract in ISRS-ISG National Symposium
40. **Sudha Gupta**, “Broadband Residential Technology for high speed Internet access,” International Conference on wireless, mobile and multimedia, IET Mumbai 11-12 Jan 2008, pp. 279 – 282.
41. **Sudha Gupta**, and N.M. Singh, “Mobility and Routing in Wireless Adhoc Network: A Survey and Open Issues,” **IEEE International conference** on communication and signal processing, in proceeding, ICCSP 13 , A.E.C., Tamilnadu, India, 3,4 & 5th April 2013, pp 1869-1873.
42. Pragya Gupta and **Sudha Gupta**, “Performance Evaluation of Mobility Models on MANET Routing Protocols”, in proc., 3rd International conference on Advanced Computing and Communication Technologies (ACCT), 6-7 April, 2013, pp. 248 – 253 Rohtak India.
43. **Sudha Gupta** “ Introduction to Distributed Wireless Sensor Networks, Connectivity and Area Coverage issues: a survey” International Journal of Applied Engineering (IJAE), IJAE 2 (2012)pp. 108-114 .
44. **Sudha Gupta**, “high speed Broadband Technologies a road from copper to Fiber”, in proceeding, National Conference ,17th and 18th March 2006 at K.J.S.C.E. Vidhyavihar Mumbai India.
45. **Sudha Gupta** “SONET the future of networking”, in proceeding, National conference on “Communication, Information & Telemetric” 11th and 12th March 2005 at Coimbatore India.
46. Amruta Heble and **Sudha Gupta**, “Brain tumor detection using image processing” in proceeding 16th IRF international conference Pune 16th Nov. 2016 pp 76-19.
47. Hamish Dsouza and **Sudha Gupta**, “ A study in change detection in Vegetation cover in an urban environment: A Multi-spectral, Multi-Temporal analysis of Mumbai suburban using remote sensing” Journal of Agroecology & Resource management, Vol. 3, Issue 2, July-Sept. 2016 pp. 136-139.
48. Aditya Sawant and **Sudha Gupta**, “ Iris recognition using support vector machine” , IEEE International Conference, 2015 IEEE ICCIC Vickram college of engineering, Sivagangai District , Madurai, Tamilnadu, India, Dec. 10 – 12, 2015.
49. Kaveri Shah and **Sudha Gupta** “Performance Analysis of WLAN and WPAN using Network Simulator” International Journal of Global technology initiative, volume 4, issue 1, march 2015.
50. Kaveri Shah and **Sudha Gupta** “ Performance Comparison of Proactive and Reactive Routing in WLAN” International Conference on CCEEDS, pp.369-374, March 2015.

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51. Sanjog Mahiman, **Sudha Gupta**, “Error diagnosis in energy-efficient data aggregation techniques “, International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE) Volume 3, Issue 7, July 2014.
52. Sanjog Mahiman, **Sudha Gupta**, “A relative performance of SPIN and LEACH Protocol for data aggregation” in proceedings of 13th IRF International Conference, 20th July-2014, Pune India.
53. Sujata Jadhav and **Sudha Gupta**, “Traffic Management in wireless Network using STORM”, in proceedings, Interface 2014, 3rd International Conference on Management systems, pp. 85-89, VJTI Mumbai 27-28 June 2014.
54. Rashmi Maheshwari, **Sudha Gupta**, “prolonging Stability Period in Clustered Wireless Sensor Network”, in proceedings of International conference on Electrical, Electronics and Computer Engineering (ICEECE), pp.99-102, Bangalore, 1 June, 2014.
55. Manoj Kavedia and **Sudha Gupta**, “Smart solution for Tunnel Ligating System”, in proceedings of 10th IRF International Conference, 1st June-2014, Pune, India, ISBN: 978-93-84209 pp.73-77.
56. Rohan A Mandhare and **Sudha Gupta** “HSV based Satellite Image Fusion”, International Journal of Emerging Trends in Electrical and Electronics Vol. 4, Issue. 1, June-2013, pp. 13-16.
57. Rohan A Mandhare and **Sudha Gupta** “Pixel-Level Image Fusion using Brovey and Wavelet transform”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, June 2013 Vol. 2, Issue 6, pp 1-4.
58. Pragya Gupta and **Sudha Gupta**, “Performance Evaluation of MANET Routing Protocols in Random Waypoint Mobility Model”, in proc., International Conference and Workshop on Emerging Trends in Technology, March 2013, Thakur College of Engg. Mumbai, pp.25-30.
59. Pragya Gupta and **Sudha Gupta** “Mobile Cloud Computing: The Future of Cloud” , International Journal of advanced research Electrical, Electronics and instrumentation Engg., Vol. 1, Issue 3, September 2012, pp. 134-145.
60. Dolly Kalav and **Sudha Gupta**, “Congestion Control in Communication Network Using RED, SFQ and REM Algorithm”, International Refereed Journal of Engineering and Science (IRJES), Volume 1, Issue 2 (October 2012), PP.41-45.
61. Dolly Kalav , and **Sudha Gupta**, “Congestion Control in Communication Network Using RED Algorithm” in proc., the National Conference “NCNTE-2012” at Fr. C.R.I.T., Vashi, Navi Mumbai, Feb. 24-25, 2012. Pp. 35-43.
62. Dolly Kalav and **Sudha Gupta**, “Congestion control in communication Network using Hybrid Model” , in proc., International conference on New Development and Challenges in Engineering, Technology and Management, Tasgaunkar college of Engineering. Karjat, 22nd March 2012.
63. Pragati Upadhyay and **Sudha Gupta**, “Change detection techniques using Remote Sensing”, in proc., International conference on New Development and Chalanges in Engineering, Technology and Management, Tasgaunkar college of Engineering. Karjat, 22nd March 2012.
64. Pragati Upadhyay, and **Sudha Gupta** “Introduction to Satellite Imaging Technology and creating Images using Raw Data obtained from Landsat Satellite”, in proc., (IRJES) ISSN (Online) 2319-183X, (Print) 2319-1821 Volume 1, Issue 2 (October 2012), PP.41-45.



**Book/Book chapter/Book review**

65. **Sudha Gupta**, Faruk Kazi, and Navdeep Singh, “Blackout Prediction in Smart Power Transmission System”, *Lambert academic publishing UK, April 2019*.
66. Mihir Khara, Devashri Naik, Dhruvik Shah and **Sudha Gupta**, “Intelligent Monitoring and Control of Vertical Farms for Metropolitan Areas”, presented in ICCIPS 2021, published in *Springer book series - Algorithms for Intelligent Systems (AIS)2021*
67. **Sudha Gupta**, Faruk Kazi, Sushama Wagh, Ruta Kambli, “Neural Network based Early Warning System for an Emerging Blackout in Smart Grid Power Networks”, **Intelligent Distributed Computing, Springer International Publishing, Switzerland**, Vol. 321 , pp 173-183 2015.
68. Mrunmayi Joshi, Sudha Gupta and Snehal Shinde “Enhancing Urban Elderly Healthcare with Generative AI: A Virtual Medical Assistant for Remote Consultation” , (ICTEAH – 2025) 5th-6th June 2025, KJSCE Mumbai. Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, second t Published2025, Imprint CRC Press.
69. Akshat, Himanshu, Payal and Sudha Gupta “Cotton Leaf Disease Detection System for Precision Pest Management in Crops using Computer Vision and Machine Learning” ICTEAH-5<sup>th</sup> and 6<sup>th</sup> June 2025, Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, second t Published2025, Imprint CRC Press.
70. Indu Dokare and Sudha Gupta, “AI -driven seizure detection using EEG”, ” International Conference on Technologies for Energy, Agriculture, and Healthcare, (ICTEAH – 2024) 15th-16th April, 2024, KJSCE Mumbai. Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, First Published2025, Imprint CRC Press, eBook ISBN9781003596707
71. Bhavesh Sangtani, Sudha Gupta, Ayesha Hakim “Nurse Bot: Autonomous Remotely Operating Nurse Assistant Robot” International Conference (ICTEAH – 2024) 15th-16th April, 2024, KJSCE Mumbai. Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, First Published2025, Imprint CRC Press, eBook ISBN9781003596707
72. Sarika Mane, Makrand Kulkarni and Sudha Gupta “Energy Prediction for Efficient Resource Management in IoT-Enabled Data Centers” International Conference (ICTEAH – 2024), 15th-16th April, 2024, KJSCE Mumbai. Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, First Published2025, Imprint CRC Press, eBook ISBN9781003596707
73. Nandita shrivatsan, Sudha Gupta “Design and development of drip monitoring of IV system” International Conference (ICTEAH – 2024) 15th-16th April, 2024, KJSCE Mumbai. Book chapter Technologies for Energy, Agriculture, and Healthcare Edition1st Edition, First Published2025, Imprint CRC Press, eBook ISBN9781003596707.
74. Internet Communication, by Ramesh Gaunkar and **Sudha Gupta** Published by Nandu Publication 2007.
75. Reviewed book “Electronics Communication System” 4e by Kennedy, published by Tata McGraw hill. (Sept. 2005 ).

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### ❖ Awards and Recognition:

Event	Date	Venue	Award/Recognition Details
Power and Energy Summit 2019	17 <sup>th</sup> -19 <sup>th</sup> Feb 2019	Dubai UAE	Invited Speaker
Travel Grant to college teachers for presenting papers in international conference	16 <sup>th</sup> to 19 <sup>th</sup> November 2018	Bangkok Thailand	Received UGC International Travel Grant
KJSCE Research and Recognition Award	For the year 2016-2018	KJ Somaiya college of Engineering Vidyavihar Mumbai	Paper publication in Elsevier Electrical Power and Energy system Journal
8 <sup>th</sup> international conference on Electronics communication and Network	16 <sup>th</sup> to 19 <sup>th</sup> November 2018	Bangkok Thailand	Best Oral presentation
ISTE staff Chapter KJSCE	For the year 17-18	KJ Somaiya college of Engineering Vidyavihar Mumbai	Publication in peer reviewed Journal (Inderscience )
KJSCE Research and Recognition Award	For the year 2014-2016	KJ Somaiya college of Engineering Vidyavihar Mumbai	Paper publication in IEEE Transaction of Industrial Electronics
EESA Departmental day	For the year 2009 – 2010	Department of Electronics Engineering KJSCE	Best Teacher Award
AICT,ISTE Approved STTP on Recent trends in wireless Technology	20 <sup>th</sup> Jan 2021	SIES GST Mumbai	Invited speaker delivered lecture on IoT and sensor Network
AICT,ISTE Approved STTP on Sensor, IoT and Machine learning	3 <sup>rd</sup> June 2020	KJSCE Vidyavihar	Invited speaker delivered lecture on
ISTE Approved STTP on "Advanced Networking & PLC Automation"	5 <sup>th</sup> Jan 2009	LT College of Engineering Navi Mumbai	Invited speaker Delivered lecture on Data communication and Networking and "Internet Networking"
ISTE approved STTP on "Broadband Communication current trends and applications"	June 19th to 30th 2006.	KJSCE Mumbai.	Invited speaker Delivered lecture on Wireless networking followed by Lab session

### Project Guided/On Going

UG: Guided: more than 70, Ongoing:04, PG: Guided: 20, Ongoing: 01, PhD: Completed 1, about to complete-02, Ongoing: 04

### Research Activities:

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**a. Research Proposal: 08, PhD completed -1, ongoing-07, MTech Project 20, UG-70+ internship-15+**

Sr. No	Project Title	Sponsoring Agency	Year	Amount (in Lakh)	Status
1	Comprehensive soil analysis for enhanced crop cultivation"	SVU seed grant for Research	2023-24	2,35,000 /	ongoing
2	Design and implementation of Fundus camera for detection of Diabetic Retinopathy *	KJSCE research scheme	2019	0.30000	Completed
3	Design and development of drip monitoring of IV to provide safety healthcare in ICU	KJSCE research scheme	2020	0.16000	Completed
4	Telemedicine based approach to detect Diabetic Retinopathy using non-mydriatic fundus images	KJSCE research scheme	2020	0.65000	completed
5	IOT Based Solar Power Plant Monitoring and Control: A Pilot Project for Smart College Campus.	Central Power research Institute Bangalore India.	2017	41.0168	Submitted
6	IoT based solar power station monitoring	AICTE Research promotion scheme	2018	23.5329	Submitted
7	Design and development of automated urine analyzer for public toilets to prevent from urinary tract infections	Mumbai university	2018	0.24680	submitted
8	Intimation of accident or any mishap occurred in a remote area or during odd hours.	Mumbai University	2018	0.22500	Submitted

**\*First Prototype completed under KJSCE Biomedical Engineering and Technology Innovation Centre (BETIC). Completed two MTech projects and MTech students received star innovation awards in the SVV foundation day 2018.**

- b) Nurturing research culture among the students by floating projects, offering internships and guiding in writing high quality technical Papers. This resulted in publication of technical papers in international conferences and journals by UG/PG students.
- c) Actively involved in designing of course content like AIML, IoT, Industrial IoT, WSN & IoT etc. along with lab development proposals.

**❖ STTP / Workshops/ Training Courses Organized**

Name of the Course	Dates /Duration	Venue
Course coordinator for one week interdisciplinary AICT ISTE approved course on Industrial IoT system design	10 <sup>th</sup> June to 14 <sup>th</sup> June 2019	K.J.S.C.E. Vidyavihar

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from sensing to mitigation”		
Organizing team member for Medical device hackathon (MEDHA 2018)	7 <sup>th</sup> & 8 <sup>th</sup> July 2018	K.J.S.C.E. Vidyavihar in association with IIT Bombay
Organizing team member for Medical device hackathon (MEDHA 2017)	16 <sup>th</sup> & 17 <sup>th</sup> July 2017	K.J.S.C.E. Vidyavihar in association with IIT Bombay
Course coordinator for one week ISTE approved STTP on “ Wavelet Transform and its application: Hands on”	19 <sup>th</sup> to 23 <sup>rd</sup> December 2016	K.J.S.C.E Vidyavihar Mumbai
Workshop Jointly organized by IITB and KJSCE on “AEQULE Simulation/ Reconfigurable Hardware Lab”.	3 <sup>rd</sup> Sept. 2011	KJSCE Vidyavihar Mumbai
Coordinator for two days workshop on “ Industry institute interaction for Technology Development and implementation	Two days - 22 <sup>nd</sup> and 23 <sup>rd</sup> Feb.2007	Convocation Hall University of Mumbai Fort.
Course coordinator for ISTE approved interdisciplinary short term training Program on “Broadband communication current trends and applications”	Two weeks June 19th to 30th 2006.	K.J.S.C.E. Vidyavihar Mumbai

### STTP / Workshops/Conference Attended:

Name of the Course	Dates /Duration	Venue
AICTE Training And Learning (ATAL) Academy FDP on “WSN and IoT”	10th Feb to 14th Feb 2023	Rungta College of Engineering and Technology, Bhilai.
AICTE Training And Learning (ATAL) Academy FDP on “Industrial internet of things using Labview”	3rd to 7th Jan 2022	KLE Dr. M.S. Sheshgiri College of Engineering & Technology, Belagavi.
AICTE Training And Learning (ATAL) Academy FDP on “ Recent trends and advances in ANN and Deep learning”	20 to 24th Dec 2021	Delhi Technological University, Delhi.
AICTE Training And Learning (ATAL) Academy FDP on "Data Sciences"	From 15 <sup>th</sup> to 19 <sup>th</sup> 2021 /One week	Institute of Aeronautical Engineering. Director ATAL
AICTE Training And Learning (ATAL) Academy FDP on "Internet of Things"	From 1 <sup>st</sup> to 5 <sup>th</sup> Feb 2020/one week	Institute of Technical teachers training and research Chainni
FDP on “Sensors, IoT and Machine learning”	From 1 <sup>st</sup> to 5 <sup>th</sup> June 2020/one week	KJ Somaiya College of Engineering Mumbai
FDP on “Future of Automation and Control Technology”	From 26 <sup>th</sup> to 30 <sup>th</sup> December 2020/ One week	VJTI Mumbai
FDP on Recent trends in Green Energy and Smart Grid Techology	From 20 <sup>th</sup> to 25 <sup>th</sup> December 2019	VJTI Mumbai
One week AICTE & ISTE approved course on " Networking Fundamentals with Hands on Training (in Collaboration with CISCOAcademy)	1 <sup>st</sup> July to 6 <sup>th</sup> July 2019	K.J.S.C.E. Vidyavihar
AICTE and ISTE approved one week course on Sensor and its Applications	4 <sup>th</sup> to 9 <sup>th</sup> Dec. 2017	K.J.S.C.E. Vidyavihar
QIP and continuation programmer IIT	9 <sup>th</sup> to 13 <sup>th</sup> December 2016	V.J.T.I. Matunga Mumbai

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Delhi and COE-CNDS VJTI “Renewable energy and Ancillary Services”.		
STTP “Machine learning and its Application	30 <sup>th</sup> June to 2 <sup>nd</sup> July 2014	IISC Bangalore
One week STTP on “Smart Grid: perspectives in cyber security”	13 <sup>th</sup> to 17 <sup>th</sup> January 2014	VJTI Mumbai
QIP and continuation programmer IIT Madras and COE-CNDS VJTI “Nonlinear State Estimation”	6 <sup>th</sup> to 8 <sup>th</sup> January 2014	VJTI Mumbai
Nonlinear Dynamical System: Modeling and Analysis	27 <sup>th</sup> and 28 <sup>th</sup> May, 2013	VJTI Mumbai
IETE Approved state level faculty Development Program on “Wireless Networking and Simulation”	2-3 March 2013	PCCOE Pune
Two week ISTE workshop on “Solar Photovoltaic : Fundamentals, Technologies and Applications ”	12 <sup>th</sup> December to 22 <sup>nd</sup> December, 2011	Conducted by IIT Bombay K.J.S.C.E. remote center
Workshop Jointly organized by IITB and KJSCE on “AEQULE Simulation/ Reconfigurable Hardware Lab”.	3 <sup>rd</sup> Sept. 2011	KJSCE Vidhyavihar Mumbai
Two days workshop on emerging technologies in communication network	26-27 August 2011	FCRCE Bandstand Bandra (W) Mumbai
Two week ISTE workshop on “Basic Electronics” conducted by IIT Bombay	28 <sup>th</sup> June to 8 <sup>th</sup> July, 2011	K.J.S.C.E. remote center
One Week QIP on “ Satellite Image Processing and Analysis”	3-7 Jan 2011	IIT Bombay
Workshop on “Best Practices in Network Simulator-2”	27 <sup>th</sup> to 30 <sup>th</sup> Dec 2010	Xavier Institute of Engineering Mahim, Mumbai
Goal setting, Team work and leadership workshop	4 <sup>th</sup> and 5 <sup>th</sup> April 2008	SIMSR Vidhya Vihar Mumbai
AICTE Approved and ISTE sponsored STTP on “Advancement in Wireless Communication”	23 <sup>rd</sup> to 27 <sup>th</sup> June 2008.	L.T. College of Engineering Koperkharane Navi Mumbai
International conference on wireless, mobile and multimedia organized by IET 11-12 Jan 2008.	Two days - 22 <sup>nd</sup> and 23 <sup>rd</sup> Feb.2008	Intercontinental the grant Mumbai
Workshop on “Power Electronics”	One day -4 <sup>th</sup> March 2006	K.J.S.C.E. Vidhyavihar Mumbai
Seminar on “LASER and Applications”	5 <sup>TH</sup> and 6 <sup>TH</sup> Feb. 2006.	Shah & Ankar college of Engg.
one day Workshop on Information Technology Trends and challenges	30, August 2005	KJSCE
STTP on embedded system design (Organizing committee member)	13-24 June 2005	KJSCE Vidyavihar Mumbai
DEP course on “Communication Networking”	Four Months Jan-May 2005	IIT Mumbai
STTP course on “Telecommunication Networks” from 13 to 27 may 2005.	15 days 13 to 27 may 2005.	ISTE & EXTC Department KJSCE
STTP course on “Advance Digital Communication System”	15 days- Dec.6 <sup>th</sup> to 18 <sup>th</sup> 2004	Thadomal shahni college of Engineering Bandra.

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Vacation Training	Two months, 21 <sup>st</sup> August to 13 <sup>th</sup> Oct. 2000	Larsen & Toubro Powai Mumbai
IET Annual Symposium & exhibition on emerging trends in electronics and telecommunication	18 <sup>th</sup> and 19 <sup>th</sup> April 2003	ACPCE Navi Mumbai
International conference and workshop on Electronics and Telecommunication Engineering	22-23 February 2013	Thakur college of Engineering and Technology
IET international conference on wireless, Mobile and Multimedia Networks	11-12 January 2008	The Inter-Continental Hotel The Grand Mumbai, India
Two days conference on “Institute Industry Interaction”	22 <sup>nd</sup> and 23 <sup>rd</sup> Feb.2007	University of Mumbai Fort.
National conference on Trends in Telecommunication: Copper to Fiber	17-18 March 2006	KJSCE Vidyavihar Mumbai Jointly organized by IEEE Bombay section, IETE Mumbai center and IET Maharashtra

### Excursions/Industrial visits organized:

Name of the Industry/Place Visited	No. of Students	Class	Date
Industrial visit at DDK Doordarshan kendra Mumbai	43	SY EXCP	18th Feb 2024
EESA Industrial Visit to Hyderabad	69	SY & TY all branch	24 <sup>th</sup> to 29 <sup>th</sup> Feb 2020
Industrial Visit Festo India – Santacruz mumbai	21	Faculty and students	12 <sup>th</sup> June 2019
Visit to Somaiya data center for M.Tech. ETRX students	13	M.Tech. ETRX	8 <sup>th</sup> April 2017
Visit to Somaiya data center for M.Tech. ETRX students	11	M.Tech. ETRX	9 <sup>th</sup> March 2015
EESA Industrial visit to kerala	65	SE,TE and BE	18 <sup>th</sup> to 29 <sup>th</sup> Dec. 2005
SCADA Kalwa Mumbai	31	Conducted Industrial visit during two week STTP	22 <sup>nd</sup> June 2006
Center of Excellence in Telecommunication Transmission MTNL	31	Conducted Industrial visit during two week STTP	23 <sup>rd</sup> June 2006
L&T Infotech. Networking section powai Mumbai.	31	Conducted Industrial visit during two week STTP	28 <sup>th</sup> June 2006
Co-coordinator for one day Visit to MTNL Powai	36	BE students	15/10/05
Visited to Integrated Circuit Fabrication Lab IIT Bombay	15	Faculty	11 <sup>th</sup> June- 2004

### **Social Initiative: Organized/Coordinated**

- International Yoga day celebration at KJSCE on 21<sup>st</sup> June 2019, 2020 and 2021.
- Diabetic checkup and awareness camp for faculty, staff and students on 23<sup>rd</sup> March 2019.
- Workshop on meditation on music for faculty, staff and students on 13<sup>th</sup> Oct 2018 for faculty, staff and students.
- Tree Plantation drive from 2018 to till date (except during lockdown 2020-22).

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- International Yoga day celebration at KJSCE on 21<sup>st</sup> June 2018.
- Art of self-healing workshop for faculty, staff and students of KJSCE on 17<sup>th</sup> March 2018.
- Faculty Picnic to Kumar resort Lonawala 11<sup>th</sup> September 2009.

#### **Personal Information**

- **Marital Status:** Married.
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