

Name: Dr Swagata Sarkar				
Designation:	Associate Professor & Head			
Qualification:	AMIE (Gold Medal), M. Tech., ME(BIT/Mesra), MBA(TQM), MSc. (Psychology), Professional Certification in Artificial Intelligence and Emerging Trends (IITH), Chartered Engineer (IEI)			
Area of specialization:	Image Processing, Signal Processing, Antenna, Artificial Intelligence, Data Science			
Experience:	Industrial Experience		Teaching Experience	
	7.5 Years		11 Years	
Number of workshops / FDP attended:	Number of Workshops		Number of FDPs	
	13		35	
Publications:	Conference		Journal	
	National	International	National	International
	7	18	1	17
Patents:	National		International	
	1[FER Completed]		NIL	

**Professional Body
Membership:**

- Life Member, Indian Society for Technical Education (ISTE), India. **LM-88021**
- Member of Institution of Engineers (IEI), India, **M-1660904**
- Life Member, Institution of Electronics & Telecommunication Engineers (IETE), New Delhi, India. **M-500085**
- Life Member of Instrument Society of India (ISOI) **LM-2127**

Professional Body Membership:

- Member **IEEE 97713274** Computational Intelligence Chapter
- Life Member **SEEE**
- **Life Member** International Association of Engineers (**IAENG**) - 253917
- **Member All India Council of Technical Skill Development (AICTSD) 09200**

Staff Achievements:

- All India **HIGHEST RANK** in Electronics and Communication Engineering from Institution of Engineers (India)
- Received **BEST TEACHER AWARD** for five times
- Received **BSET APPRAISAL AWARD** by SRI SAIRAM ENGINEERING COLLEGE
- Recognized as **NPTEL BELIEVERS** by NPTEL, IIT
- Recognized as **NPTEL EVANGELISTS** by NPTEL, IIT
- Recognized as **NPTEL STAR PERFORMER** by NPTEL, IIT
- Recognized as **TOP 50 MOST POWERFUL WOMEN IN HIGHER EDUCATION ACROSS INDIA** by the Academic Council of ULEKTZ
- Recognized as **Technical Committee Member** by ASDF
- Received **BEST RESEARCHER AWARD** by D K International Research Foundation
- Received **EXCELLENCE TEACHING IN HIGHER EDUCATION AWARD** by D K International Research Foundation
- Received **LIFE TIME ACHIEVEMENT AWARD** by D K International Research Foundation
- Received **DR. RADHA KRISHNAN AWARD FOR BEST ENGINEERING COLLEGE TEACHER** by SEEE.
- Received Silver Medal and Certificate for his project titled “Chocoxin-Detection of Toxins in Chocolate”, under Electrical discipline at **50th All India Student Design Award organized by NATIONAL DESIGN AND RESEARCH FORUM, The Institution of Engineers (India)**
- Recognized as a Mentor for **SAMADHAN** project launched by **AICTE & MHRD**
- **Certified** as faculty advisor for the project **ROBOTIC HAMMER**, during the **Think Create Engineer** program conducted by **PALS** at the **IITM Campus, Chennai** from **December 17th to 20th, 2019**.
- **Received Cash Award of Rs. 5,000/-** from **INNOWAH, PALS, IIT** for the project titled “Removal of Arsenic and Microplastic contaminations from water”, 2020
- **Received Cash Award of Rs. 4,000/-** from **INNOWAH, PALS, IIT** for the project titled “Smart Vision Touch Free Sanitizer Dispenser”, 2021

Special Achievements:

Received sponsorship of **Rs.1,77,000/-** for the completion of the course **“Professional certification on Artificial Intelligence and Emerging Trends”** from **IIT Hyderabad** in association with **Talent Sprint by Sri Sairam Engineering College.**

Received **Orange World Record** from **Course Era** for Highest Number of Institutional Course Completion. Completed 236 courses in Course era.

Responsibility:

1. As a **Mentor of Change (MoC)**, Assigned by AIM, NITI AAYOG -ATL, JAIGOPAL GARODIA NATIONAL HIGHER SECONDARY SCHOOL, EAST TAMBARAM & KENDRIYA VIDYALAYA, KANCHIPURAM.
2. Team Lead for **SAIRAM Robotics Club**
3. Member for **Governing Council**
4. Coordinator and Organizer for various workshops, Seminars, STTP, National conference and International conference.
5. Received Grant from ISTE, TNSCST to organize National workshop, Conference, STTP and Seminar.
6. **IEEE Computational Intelligence** Student Chapter, Madras Section, **Advisor**
7. **Curriculum and Syllabus Development board Chair Person for Artificial Intelligence and Data science for Sri Sairam Engineering College (Autonomous)**

INVITED TALKS

1. Delivered Lecture on "Basic Electronics Concept" at Turn On LED Lights, Puducherry on 17.1.2019
2. Delivered Lecture on "Past Present Future Applications of Robots and its Challenges" at Sri Sairam Engineering College, Chennai on 13.5.2019
3. Delivered Lecture on "Psychological Test" at Sri Sairam Engineering College, Chennai on 12.12.2019
4. Delivered Lecture on "Robotics and its Applications" at Sri Sairam Engineering College, Chennai on 16.4.2020
5. Delivered Lecture on "Computer Ethics, Discrimination, Social Responsibility, Whistle Blowing" at Sri Sairam Engineering College, Chennai on 1.6.2020

6. Delivered Lecture on "Latex for Resume writing, Letter Writing and Preparation for Research Article" at Vinayaka Rao Patil Mahavidyala, Vijipur, Aurangabad on 17.6.2020
7. Delivered Lecture on "Recent Trends in Microsoft Antenna Technology" at Paavai Engineering College, Tamilnadu on 15.7.2020
8. Delivered Lecture on "Recent Trends in Microsoft Antenna Technology" at Paavai Engineering College, Tamilnadu on 15.7.2020
9. Delivered Lecture on "Cognitive Radio, Wireless Sensor Network, Applications and Challenges" at Vivekananda College of Engineering, Tamilnadu on 22.7.2020
10. Delivered Lecture on "Cognitive Radio, Wireless Sensor Network, Applications and Challenges" at United Innovators, Tamilnadu on 19.9.2020
11. Delivered Lecture on "Importance of Data Science for AI" at Sri Sairam Engineering College, Chennai on 17.11.2020
12. Delivered Lecture on "Humanoid Robot" at Sri Sairam Engineering College, Chennai on 10.12.2020
13. Delivered Lecture on "Role of Natural Language Processing in Artificial Intelligence" at Sri Sairam Engineering College, Chennai on 14.12.2020
14. Delivered Lecture on "Introduction to Python and its applications" at Jai Gopal Garodia National Higher Secondary School, Chennai from 20.4.2020 to 18.12.2020[Friday Only]

CHAIR PERSON

1. Paper presentation Chair persons for International conference on "Computing and Communication Technologies" on 26th and 27th FEB 2010.
2. Technical Committee Member for International Conferences conducted by ASDF.

REVIEWER

1. IAENG International Journal of Applied Mathematics
2. International Journal of Communication Systems
3. IEEE Access
4. Journal of Imaging Science and Technology

PATENT

1. “Multilayered Arsenic and Particulate Removal Water Filter for Taps”

Design Application No: 339139-001. (FER Defended) Date of Filing Application: 12/05/2021 FER Date: 20/03/2021

FUNDED PROJECTS

Sl. Nos.	Project Title	Funding Agency	Approved Budget	Status
1.	E-Tongue as an analytical gustatory tool and food quality detector	DST-IEDC	Rs 1,00,000/	Completed
2.	Chocoxin-Detection of Toxins in Chocolates	TNSCST	Rs 10,000/	Completed
3.	Energy Efficient Lithium Battery Design	Touch Solar	Rs 2,00,000/	Ongoing
4.	Smart Tube Light	Turn on LED Lights	Rs. 3,00,000/-	Completed

TECHNICAL COMMITTEE MEMBER

Technical program committee member of ASDF.

<https://intcongress.com/committee/>

RESEARCH PROJECT

1. **Surveillance Drone** Team with members from different departments with Sponsorship of Rs. 65,000/- by Sri Sairam Engineering College
2. Development of **Virtual Lab** for Communication Engineering by **PALS, IIT Madras**.

START-UP & INCUBATION

The Start-Up **TECHNO RAISE PVT. LTD.** successfully incubated at the premises of SRI SAIRAM ENGINEERING COLLEGE on **18.1.2021** under the **Directorship of Dr. Swagata Sarkar with DIN 09033453.**

CONSULTANCY

1. Received honorarium from NPTEL for translation of **Design of Internet of Things.**
2. Received honorarium from NPTEL for translation of **Design of Internet of Things.**
3. Received honorarium from NPTEL for translation of **Computational Electromagnetics.**
4. Received honorarium from NPTEL for translation of **Computational Electromagnetics.**
5. Received honorarium from NPTEL for translation of **Basic Electric Circuits.**
6. Received honorarium from **United Innovators** for consultancy project titled “Landmark Recognition”.
7. Received honorarium from **United Innovators** for consultancy project titled “Machine Learning Model for Character Recognition”.
8. Received honorarium from **Research Scholar, Bangalore** for consultancy project titled “Application of Artificial Intelligence for Resource Management”.

Educational Qualification:

Qualification	Board/university	Year of passing	Percentage
S.S.L.C.	W.B.B.S. E	1996	82%
H.S.C.	W.B.C.H.S.E.	1998	72%
Diploma in electronics & communication engineering	W.B.S.C.T.E.	2002	88%
AMIE	IEI(INDIA)	2006	77.6% (All India First Rank)
M.Tech in mobile communication & networking technology	W.B.U.T.	2009	88.8%

ME in instrumentation & control system	BIT Mesra	2011	79.8%
MBA	Sikkim Manipal University	2013	80%
PhD	Sathyabama university	2018	Completed
MSc Psychology	Tamilnadu Open University	2019	Completed
BA Hindi	Dakshin Bharat Hindi Prachar Sabha[M/17853/2018]	2019	First Class
Professional Certification in Artificial Intelligence and Emerging Trends	IIT, Hyderabad	2019-20	Completed

Professional Qualification:

Certification	Subjects	Grade
Certificate in basic computing	Ms office, Foxpro, Internet	A+
Diploma in hardware & networking	Troubleshooting of hardware & network devices, Lan configuration	A
Cisco Certified Network Associate (CCNA)	Cisco routings & switching's	909
Red hat Certified Engineer (RHCE)	Red Hat installation, server configuration, troubleshooting, administration	95%

Certification for software's	C, C++, JAVA, VB6, Python	A
Certification on Programmable Logic Controller (PLC)	Programming on plc, cnc	Qualified

Professional experience:

Name of the Company	Designation	Duration	Total experience
Health Care Electronics	Service Engineer	July 2002 to June 2003	1 year
Accel ICIM frontline ltd.	Associate Engineer	July 2003 to January 2006	2 years 6 months
CMC LTD.	Senior faculty in hardware, networking, security & MCA, BCA for N.S.O.U.	February 2006 to Oct 2008	3 years
Rajiv Gandhi college of engineering	Associate Professor & HOD, IT	January 2010 to May 2012	2 year 5 months
Sri Sairam Engineering College	Assistance Professor	June 2012 to May 2019	7 years
Sri Sairam Engineering College	Associate Professor	June 2019 to May 2021	2 Years
Sri Sairam Engineering College	Associate Professor & HOD Artificial Intelligence and Data Science	June 2021 till date	

Publications

1. **Swagata B Sarkar**, “Design and Analysis of 5.2 GHz Fractal Rectangular Microstrip Patch Antenna Using Hilbert Curve” IEEE INTERNATIONAL CONFERENCE ON WIRELESS COMMUNICATIONS, SIGNAL PROCESSING AND NETWORKING (WISPNET) March 2017.(**Web of Science & Scopus Indexing**) DOI: 10.1109/WISPNET.2017.8299707.
2. **Swagata B Sarkar**, “Design and Analysis of 5.2 GHz Rectangular Microstrip Patch Array Antenna using Split Ring Resonator” Fourth International Conference on Signal Processing, Communication and Networking (ICSCN), March 2017.(**Web of Science & Scopus Indexing**) DOI: 10.1109/ICSCN.2017.8085654.
3. **Swagata Sarkar**, Ranganathan H, “An Approach to Identify Subject Specific Human Emotions” International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM), May 2015.(**Web of Science & Scopus Indexing**) DOI: 10.1109/ICSTM.2015.7225385.
4. **Swagata Sarkar**, “Metamaterial based Reconfigurable Fractal Body Worn Antenna -A Review” Seventh International Conference on Advanced Computing (ICoAC), 2015.(**Web of Science & Scopus Indexing**). - -
5. Muthukumaran P, **Swagata B Sarkar**, “Solid waste disposal and water distribution system using the mobile adhoc network” INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN COMMUNICATION, CONTROL, SIGNAL PROCESSING AND COMPUTING APPLICATIONS (IEEE-C2SPCA-), October 2013.(**Web of Science & Scopus Indexing**) DOI: 10.1109/C2SPCA.2013.6749351.
6. **Swagata Sarkar**, “Multimodal Analysis of Human Fear” International Journal of Innovative Technology and Exploring Engineering, September 2019.(**Scopus Indexing**) DOI: 10.35940/IJITEE.K1909.0981119. - -

7. **Swagata Sarkar**, “Human Fear Analysis using Signal and Image Processing” International Conference on Computing and Communications Technologies (ICCCT), February 2019.(**Scopus Indexing**) **DOI:** 10.1109/ICCCT2.2019.8824815. - -
8. **Swagata Sarkar**, “Signal and image based analysis of human fear using FPGA” International Journal of Recent Technology and Engineering, 2019.(**Scopus Indexing**) **DOI:** 10.35940/IJRTE.C5013098319.098319. - -
9. **Swagata Sarkar**, B Karthikeyan, S Sri Ajay, C M Sarath, “Relaxation Aid for Intellectual Disabilities” International Conference on Communication, Computing and Internet of Things (IC3IoT),February 2018.(**Scopus Indexing**) **DOI:** 10.1109/IC3IOT.2018.8668148. -
10. **Swagata Sarkar**, Aparna Devi S, Hemamalini P, Veena S, “Non-Destructive Method of Foreign Object Detection in Food Products” International Conference on Communication, Computing and Internet of Things (IC3IoT),February 2018.(**Scopus Indexing**) **DOI:** 10.1109/IC3IOT.2018.8668148.
11. **Swagata Sarkar**, Ranganathan H, “Detection and Analysis of Bimodal Human Emotions Based on Speech and Physical Parameters” Journal of Computational and Theoretical Nanoscience, July 2017.(**Scopus Indexing**) **DOI:** 10.1166/JCTN.2017.6850. -
12. **Swagata B Sarkar**, “Design and analysis of annular ring Triangular microstrip Patch Antenna” International Conference on Computing and Communications Technologies (ICCCT), Feb 2017.(**Scopus Indexing**) **DOI:** 10.1109/ICCCT2.2017.7972236. -
13. **Swagata B Sarkar**, “Metamaterial based reconfigurable fractal body worn antenna — A review” Seventh International Conference on Advanced Computing(ICoAC), Dec 2015.(**Scopus Indexing**) **DOI:** 10.1109/ICOAC.2015.7562781. - -
14. **Swagata B Sarkar**, “Design and Analysis of Multiband Octagonal Microstrip Patch Antenna with different Annular Ring” ICTACT JOURNAL OF MICROELECTRONICS 2 (2), 237-242 **DOI:** 10.21917/ijme.2016.0040, ISSN: 2395-1680 (ONLINE).

15. **Swagata Sarkar**, Dhamodharan M, “Performance Analysis of Solar Panel with Different Shading Effects” IETE Convention, 2019.
16. **Swagata Sarkar**, V Srihari Sudarshan, A Deepak Kumar, G Kirupashanker, “Robotic Hummingbird: Design of a Control Mechanism for a Hovering Flapping Wing Micro Air Vehicle” IETE Convention, 2019.
17. **Swagata Sarkar**, Aswathy S Kumar, Aparna R, “DRONE AIDED HEALTH DEVICE” IETE Convention, 2019.
18. **Swagata Sarkar**, Sanjana R, Raalakshmi S, Harini T J, “Tamil Speech Accent Detection using Modified Mel Frequency Cepstral Coefficient Algorithm” International Journal of Engineering and Technology, Vol 7, No 2.33 (2018): Special Issue 33, **DOI:** 10.14419/ijet.v7i2.33.14202 (**Scopus Indexing**).
19. **Swagata Sarkar**, S Veena, “Design of Compact Vivaldi Antenna for Ultra-Wide Band Applications” NCRTCT18.
20. **Swagata Sarkar**, “Simulation and Analysis of Channel Allocation for Cognitive Radio System” IJRTER, 2017. (**UGC Indexing**)
21. **Swagata Sarkar**, “Soil quality monitoring using wireless sensor network” IJRTER, 2017, Vol. 3, Issue 8, pp. 218-222 (**UGC Indexing**)
22. **Swagata Sarkar**, H Ranganathan, “Detection of human fear using physical parameters-an analytical approach” Advances in Computational Sciences and Technology, Vol 10, Issue 9, pp. 2841-2849, ISSN 0973-6107(**Google Scholar Indexing**).
23. **Swagata Sarkar**, H Ranganathan, “Human Emotion Detection using Deep Learning Neural Network-A Review” International Journal of Pharmacy and Technology, Vol 9, Issue 1, pp. 5967-5971, eISSN 0975-766x (**Google Scholar Indexing**).

24. **Swagata Sarkar**, H Ranganathan, “Design and Analysis of Bimodal Human emotions using FPGA” International Journal of Pharmacy and Technology, Vol 9, Issue 1, pp. 5967-5971, eISSN 0975-766x (**Google Scholar Indexing**).
25. **Swagata Sarkar**, Hemamalini P, “A Review on Data Analytics Software” NCRTCC17.
26. **Swagata Sarkar**, Veena S , Vani R, “IoT Antenna Applications – A Review”, ICCST17.
27. **Swagata Sarkar**, Veena S, “The detection of toxins in chocolate”, ICABBS17.
28. **Swagata Sarkar**, Veena S, Vani R, “Wearable antenna”, MIT, Symposium.
29. **Swagata Sarkar**, Veena S, HEMAMALINI P, “Chocoxin the effect of toxins in chocolate”, ISC 17.
30. **Swagata Sarkar**, “Design and Analysis of I & J cut microstrip antenna” International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol 5, Issue 9, pp. 7595-7600, ISSN (Print): 2320 – 3765 ISSN (Online): 2278 – 8875 (**Google Scholar Indexing**).
31. **Swagata Sarkar**, Rohinie R, Bavya L, “Pesticide detection in beverages using impedance immuno sensor” CEEE, 2017.
32. **Swagata Sarkar**, Janani R, “Biosensor-A Multi-dimensional Approach” NCVRT, 2016.
33. **Swagata Sarkar**, “A Novel Approach for Bimodal Human Emotion Recognition” ICBWT, 2016.
34. **Swagata Sarkar**, “Performance Analysis of Human Speech Emotions using Modified MFCC Algorithm” ICBWT, 2016.
35. **Swagata Sarkar**, H Ranganathan, “Human emotion Classification based on Fuzzified Physical Parameters” CEET, KUALALAMPUR, MALAYASIA, 2016, DOI-10.15224/978-1-63248-087-3-58, Electronic ISBN: 978-1-63248-087-3.

36. **Swagata Sarkar**, H Ranganathan, “Human Emotion Detection using Image Fusion Technique” IOSR Journal of Electronics and Communication Engineering (IOSR-JECE), 2016, vol. 11, issue 2, pp. 10-15, e-ISSN: 2278-2834, p- ISSN: 2278-8735.
37. **Swagata Sarkar**, H Ranganathan, “A Novel Approach for Bimodal Human Emotion Recognition” CIIT journal of Biometrics & Bioinformatics, 2016, vol. 8, issue 3, pp. 66-69.
38. **Swagata Sarkar**, “Simulation and analysis of energy detection of spectrum in Cognitive radio system” International Journal of Computer Science and Technology, 2016, vol. 6, issue 3, pp. 165-166.
39. **Swagata Sarkar**, “Metamaterial based fractal body worn antenna-A Review” International Journal of Advanced Foundation and Research in Computer, 2016, vol. 2, issue 8, pp. 88-93 (**Google Scholar Indexing**).
40. **Swagata Sarkar**, Gokulakrishnan, Gopi Krishnan, Sathish “Real time patient monitoring system based on ECG signals” International Association of Scientific Innovation and Research, 2016, vol. 3, issue 12, pp. 261-264 (**Google Scholar Indexing**).
41. **Swagata Sarkar**, “Impact of Metamaterial in Antenna design: A Review” International Journal of Electrical and Computer Engineering, 2015, vol. 8, issue 1, pp. 87-90.
42. **Swagata Sarkar**, “An approach to identify the randomness of human generated numbers” ICHCI, 2013.
43. **Swagata Sarkar**, “Television Channel Logo Recognition” IJCRD, 2015, vol. 1, issue 4, pp. 38-41.

Programs Organized

1. Workshop on “Basic Autonomous Robots” by SP Robotic Works on 30th-31st August, 2013.
2. Guest Lecture on “Role of Instrumentation Engineers in Core Industries” by Mr. Vishnuvardhan J, Operation Head, Trend Automation on Monday, 30th December, 2013 at 2 PM in the Main Auditorium.

3. Two-day workshop on “Introduction to MATLAB & LabVIEW” by Prof. V. R. Ravi, Professor, Velammal Engineering College, on 17th and 20th January, 2014, at Virtual Instrumentation Laboratory.
4. Guest lecture on “Engineering in Industrial applications”, by Mr. N Vasanthan, Project Manager, Pro-Design Engineering Services Pvt. Ltd. on 3.7.14.
5. Workshop on “Make Object, Gadgets and Robots”, by Mr. A Parthiban, EPR labs on 9.7.14.
6. Workshop on “Distributed Control System and Programmable Logic Controllers”, by Mr. P. Anand Rajkumar, Senior Manager, Customer Care Division, Yokogawa India Ltd. from 21.7.14 to 25.7.14.
7. Workshop on “Cybertronics” by SP Robotic Works on 26th August, 2014
8. Workshop on “Embedded System and Its Applications” by Mr. M. Barani Kumar on 10th September, 2014
9. Workshop on “Entrepreneurship Awareness Camp” sponsored by NSTEDB, Department of Science and Technology, Government of India New Delhi, organized by IEDC in association with Department of Electronics and Instrumentation Engineering, Sri Sairam Engineering College, 23rd-25th March, 2015.
10. One Day Workshop on “PRODUCT DESIGN USING EMBEDDED SYSTEMS & ROBOTICS” on 24/06/2015 by Mr. A. Parthiban, EPRLABS, Chennai.
11. Guest Lecture on “Prospect of Instrumentation engineers in core industries” by Mr. Krishnamurthy, Head – Training & Development, Control Concepts on 29th July, 2015.
12. Yokogawa India Ltd organized five-day workshop on” Distributed Control System Fundamentals and Programmable Logic controller” from 13th to 17th July 2015.
13. “SP Robotic Works” organized two day “Robotics Workshop, Bionics “on 22nd and 23rd August, 2015.
14. Two Days Workshop on “Autonomous Robotics” on 22nd and 23rd September 2016.
15. Six days Workshop on “Kaizen Robotics”, by Lema Labs on 16th to 21st September 2019.
16. Conducted Innovative Project and Logo Design Competition on 21.10.2020
17. Conducted AutoCAD Training on 30.11.2020 to 10.12.2020 for Robotics Club.
18. Guest Lecture on “Virtual Tour on Robotics” by Dr. G Kalairasaan, Professor, VIT University on 6th March, 2021.
19. Conducted “Ideathon on Robotics and drone Technology” on 18.3.2021.
20. Conducted Bootcamp on Robotics for one month.

Certifications: General

1. Completed MISSION-10X by WIPRO from 2nd-6th August, 2011, at Gojan School of Business and Technology, Chennai
2. Completed Hands on Training on “Digital Image Processing and Pattern Recognition using MATLAB” by Scientific Computing Solutions, from 23-24th August, 2014.
3. Completed Hands on Training on “Biomedical Signal Processing” by Scientific Computing Solutions, from 6th September, 2014.
4. Completed Hands on Training on “Artificial Neural Network for Machine Learning and Pattern Classification using MATLAB” by Scientific Computing Solutions, from 20-21st September, 2014.
5. Completed Hands on Training on “Artificial Neural Network, Fuzzy logic and Genetic Algorithm in Pattern Recognition and Machine Learning Applications” by Scientific Computing Solutions, from 11-12th April, 2015.
6. Completed Short Term Training Program on “Recent Trends and Research Issues in Wireless Communication” by Scientific Computing Solutions, from 3-8th August, 2015.
7. Completed author workshop on 2nd November, 2015, Anna University, Chennai.
8. Completed Hands on Training on “Big Data Analytics and Machine Learning using R Software” by Scientific Computing Solutions, from 25-27th March, 2016.
9. Certified as Internal Auditor by Creative Management Consultant on 8th June ,2018
10. Completed Informal Learning Program in Student Counselling from Coimbatore Psychological Foundation on March 2019 with Outstanding Grade.
11. Completed “Certificate Course on Effective Patent Search and Drafting-2019” conducted by CIPR, Anna University Chennai during 2nd to 6th December, 2019 at College of Engineering Guindy Campus, Anna University, Chennai.

Certifications: Udemey

1. Completed “Python for Beginners” on 14th August, 2019
2. Completed “Numpy Stack in Python” on 22nd September, 2019
3. Completed “Data Science, Machine Learning and Data Analysis with Python” on 10th November, 2019
4. Completed “Artificial Intelligence” on 11th November, 2019
5. Completed “Machine Learning with Python” on 14th December, 2019
6. Completed “Artificial Intelligence Master Class” on 14th December, 2019
7. Completed “Deep Learning in Python” on 31st December, 2019
8. Completed “Deep Learning and Artificial Intelligence” on 30th March, 2020

9. Completed “Complete 2020 Machine Learning & Data Science Bootcamp” on 1st April, 2020
10. Completed “Hands on Artificial Neural Network” on 6th April, 2020
11. Completed “Learning Python for Data Analysis and Data Visualization” on 21st April, 2020
12. Completed “Artificial Intelligence Master Class” on 31st July, 2020
13. Completed “Matplotlib Tutorial” on 6th September, 2020

Workshop/Conferences/FDP:

1. Participated as a Registered delegate in the 15th Annual Convocation of IEI(India) from 2nd-4th November, 2007 at Dehradun, UP.
2. Attended FDP on “Transmission Lines and Wave Guides” held from 24th to 30th May, 2010 at Anna University, Chennai.
3. Attended FDP on “Network Simulator-2” held from 21st to 22nd August, 2010 at Sathyabama University, Chennai.
4. Attended Workshop on “PID Controller” held from 17th to 18th September, 2010 at MIT Campus, Anna University, Chennai.
5. Attended Workshop on “RF Engineering for Wireless Networks” held from 8th to 9th October, 2010 at MIT Campus, Anna University, Chennai.
6. Attended FDP on “EDA Tools for VLSI Design and Signal Processing” held from 15th to 18th November, 2010 at SSN College of Engineering, Chennai.
7. Attended FDP on “Biomedical Signal Processing” held from 20th to 24th December, 2010 at SSN College of Engineering, Chennai.
8. Attended Workshop on “VLSI for Signal Processing” held from 14th to 15th March, 2011 at MIT Campus, Anna University, Chennai.
9. Attended Workshop on “NS-2” held from 24th to 25th March, 2011 at Velammal Engineering College, Chennai.
10. Attended FDP on “Advanced VLSI Design” held from 17th to 19th November, 2011 at SSN College of Engineering, Chennai.
11. Attended FDP on “Antenna and Wave Propagation” held from 24th to 30th November, 2011 at Anna University, Chennai.
12. Attended Technical Seminar on “Issues in Preparing Research Thesis and Project Proposal” held from 16th to 17th March, 2012 at MIT Campus, Anna University, Chennai.
13. Attended Workshop on “Recent Development in Neural Networks” held from 3rd to 5th October, 2012 at MIT Campus, Anna University, Chennai.

14. Attended FDP on “Fundamental Analysis and Processing of Image and Video with Computing Techniques” held from 20th to 21st September, 2013 at SSN College of Engineering, Chennai.
15. Attended Course on “DCS & PLC Overview” held from 5th to 8th August, 2013 at Sri Sairam Engineering College, Chennai.
16. Attended Short Term Course on “Simulation and Graphical System Design using MATLAB and LABVIEW” held from 9th to 20th December, 2013 at NITTTR, Chennai.
17. Attended FDP on “Design, Simulation, Fabrication and Testing microstrip Antennas” held from 11th to 15th May, 2015 at B S Abdur Rahman University.
18. Attended Hands on Training Program on “Soft Computing Using MATLAB”, at Department of Computer Technology, MIT Campus, Anna University during 9-11th October, 2015.
19. Attended Workshop on “Advancements in Biomedical Signal and Image Processing” sponsored by UGC-DRS at MIT Campus, Anna University by the Department of Electronics Engineering, 29th-30th October, 2015.
20. Attended FDP on “Applied Soft Computing” held from 9th to 15th June, 2016 at Anna University, Chennai.
21. Attended Workshop on “Instrumentation Detail Engineering Workshop” at Sri Sairam Engineering College by Trend Instrumentation and Automation Pvt. Ltd., Thanjavur, June 30, 2016.
22. Attended FDP on “Process Control” held from 16th to 23rd December, 2016 at Anna University, Chennai.
23. Attended FDP on “Design of Microstrip Antenna Array using HFSS” held from 5th to 7th October, 2017 at B S Abdur Rahman University.
24. Attended Workshop on “Rapid Prototyping-IoT and Embedded System Design” at Sri Sairam Engineering College by Digital Shark Technology Pvt. Ltd., Bengaluru, 12th-14th, November, 2018.
25. Attended Workshop on “Design and Development of Smart Drones” held from 4th to 5th February, 2019 at B S Abdur Rahman University.
26. Attended Workshop on “Intellectual Property Rights and Innovations” at Sri Sairam Engineering College, July 20, 2019.
27. Attended FDP on “Renewable Energy Systems” held from 22nd to 26th July, 2019 at Sri Sairam Engineering College.

AICTE FDP

28. Attended FDP on “Artificial Intelligence” held from 25th to 29th May, 2020 at NITTTR, Chandigarh.
29. Attended FDP on “Data Sciences” held from 14th to 18th December, 2020 at IIIT, Vadodara.
30. Attended FDP on “Wearable Devices” held from 11th to 15th January, 2021 at Saintgits College of Engineering.
31. Attended FDP on “Internet of Things” held from 1st to 5th February, 2021 at Knowledge of Technology.

NPTEL FDP

32. Completed FDP and Course on “Teaching and Learning in General Programs”.
33. Completed FDP and Course on “Stress Management”.
34. Completed FDP and Course on “Research Writing”.
35. Completed FDP and Course on “Patent Drafting for Beginners”.
36. Completed FDP and Course on “Design for Internet of Things”.
37. Completed FDP and Course on “Introduction to Human Computer Interaction”.
38. Completed FDP and Course on “Educational Leadership”.
39. Completed FDP and Course on “Emotional Intelligence”.
40. Completed FDP and Course on “Python for Data Science”.
41. Completed FDP and Course on “Data Science for Engineers”.
42. Completed FDP and Course on “Digital Image Processing of Remote Sensing Data”.
43. Completed FDP and Course on “Biomedical Signal Processing”.
44. Completed FDP and Course on “Entrepreneurship Essentials”.
45. Completed FDP and Course on “Roadmap for Patent Creation”.
46. Completed FDP and Course on “Teaching and Learning in Engineering”.
47. Completed FDP and Course on “Enhancing soft Skills and Personality”.
48. Completed FDP and Course on “Development Research Methods”.