

Dr. P.Poornima					
Designation:	Assistant Professor				
Qualification:	M.E., Ph.D.				
Area of specialization:	Applied Electronics				
Experience : (As On July 2025)	Industrial Experience		Teaching Experience		
	-		8.7 Years		
Number of workshop / FDP attended:	Number of Workshops		Number of FDPs		
	6		21		
Publications:	Conference		Journal		
	National	International	SCI	Scopus	Others
	1	5	2	11	3
Patents:	National		International		
	4		-		
Professional Body Membership:	IEEE IETE ISTE-LM IAENG				
Staff Achievements:	<ul style="list-style-type: none"> • Contributed as Resource Person and delivered lecture on the topic of “Research opportunities in 6G” for the FDP organized by the Department of ECE, Sri Sairam Engineering College on 11th April 2025. • Contributed as Resource Person and delivered lecture on the topic of “Traffic Tech Wearables” organized by the IEEE VTS St. 				

	<p>Joseph's College of Engineering Student chapter on 24th March 2025.</p> <ul style="list-style-type: none"> • Participated as an Academic mentee in the Professional Mentorship Program organized by the IEEE India Council Industry Academia Young Professionals Committee (IAYPC) held from 20th August 2024 to 20th December 2024. • Contributed as Reviewer for the 2024 IEEE Technology & Engineering Management Society Conference: Asia -Pacific 2024, held on 25th to 27th September 2024, Bali, Indonesia. • Participated as ATAL mentor for the ATL Tinkerpreneur event organized by Atal Innovation Mission in 2024. • Contributed as Reviewer for the 2024 International Conference on Communication, Computing and Internet of Things, held on 17th and 18th April 2024. • Contributed as Reviewer for the IEEE sponsored Second International Conference on Networking and Communications 2024, organized by Department of Networking and Communications, School of Computing, SRMIST, held between 02nd and 04th of April 2024. • Participated as Proctor for the IEEE Xtreme 17.0 event organized by IEEE in October 2023. • Delivered guest lecture in the six days FDP titled “Powering IoT using Raspberry Pi or Arduino” organized by the Department of ECE, CEG campus, Anna University in 2023. • Participated in Smart Hackathon-2017 Finale.
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Workshop Details:	Sl. No.	Title	Venue	Month/Year
	1.	Fundamentals of Quantum Computing	BosonQ Psi corp and KwantumG Research labs	27/06/2024 to 11/07/2024
	2.	Telecom Technology	BSNL-AU Joint certificate course	26/02/2024 to 30/03/2024
	3.	5G Mobile Communications	NTIPRIT, Ghaziabad	14/08/2023 to 21/09/2023

	4.	5G Design Workshop : Circuit Design using ADS	Elmack Technologies	15/2/2021 to 19/2/2021
	5.	Research Scholars' Colloquium	SSN college of Engineering ,Chennai	21/08/2019
	6.	Writing Scientific Research Paper– Phase VI	SSN College of Engineering, Chennai	24/08/2018
FDP Details:	Sl. No.	Title	Venue	Month/Year
	1.	AR & VR with Emphasis in Unreal Engine	Monolith Research and Training labs	27/05/2024 to 31/05/2024
	2.	Next Generation AI – Research Perspectives	NIT- Nagaland	18/03/2024 to 22/03/2024
	3.	UHV-II	All India Council for Technical Education.	23/01/2024 to 27/01/2024
	4.	Statistical Analysis with Excel	Research Foundation of India	05/06/2023 to 09/06/2023
	5.	Powering IoT using Raspberry Pi or Arduino	Department of ECE, College of Engineering, Anna University	30/01/2023 to 04/02/ 2023
	6.	AI & ML in next generation communication technologies	Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology	25/08/2022 to 04/09/2022
	7.	Neuromorphic Computing for AI	AICTE- ISTE Refresher/Induction Programme	24/12/2021 to 31/12/2021
	8.	Advances in Control systems & sensor Technologies	IIIT Pune	27/11/2021 to 01/12/2021

	9.	Cognitive radio, Antennas and millimetre wave communication	Saranathan College of Engineering	07/06/2021 to 11/06/2021
	10.	EC8351 – Electronic Circuits I	MIT, Anna University	24/05/2021 to 29/05/2021
	11.	Lab on Chip	SRMIST kattankulathur – ATAL sponsored	18/01/2021 to 22/01/2021
	12.	5G and beyond Wireless Technologies : Modelling and Simulations using MATLAB	TEQIP III sponsored short-term course, IIT Indore	24/12/2020 to 26/12/2020
	13.	National Seminar on Cyber Security	VIT, Chennai	21/12/ 2020 to 22/12/2020
	14.	Inculcating Human values in Technical Education	AICTE	14/12/2020 to 18/12/2020
	15.	Research Methodologies Using recent Tools and techniques	A.V.C college of Engineering	20/06/2019 to 22/06/2019
	16.	Cyber security threats - Conclave	SSN College Of Engineering	27/02/2018 to 28/02/2018
	17.	IoT- Application Development using Raspberry Pi	A.V.C College of Engineering	16/11/2017 to 18/11/2017
	18.	EC6402- Communication Theory	MRK Institute of Technology (Anna university sponsored)	1/12/2016 to 7/12/2016

	19.	MATLAB and its applications	Parisutham Institute of Technology and Science.	August 2016
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Publication Details:

- Prabu, R. T., **Pandian, P.**, Rajendran, R., Murthy, G. S., Kanchana, R., Vijayakumar, S., & Saber, S. K. (2025). Simulative study of different photonic crystal fibers (PCFs) types configuration based optical fiber communication channel system for short range indoor applications. Journal of Optical Communications, (0). **(Scopus Indexed)**
- **Pandian, P.**, Susithra, K., Panchami, B. G., & Reshma, R. (2025). Intelligent Agriculture. In Ethical Impacts of Using AI for Sustainable Development (pp. 23-56). IGI Global Scientific Publishing. **(Book Chapter & Scopus Indexed)**
- **Pandian, P.**, & Disney, A. (2025). Integrating AI With IoT: Challenges and Solutions. In Merging Artificial Intelligence with the Internet of Things (pp. 1-32). IGI Global Scientific Publishing. **(Book Chapter & Scopus Indexed)**
- **Pandian, P.**, Selvaraj, C., & Yugha, R. (2025). Quantum Computing for Optimization and Its Applications. In Optimization Tools and Techniques for Enhanced Computational Efficiency (pp. 237-254). IGI Global Scientific Publishing. **(Book Chapter & Scopus Indexed)**
- Ashok, P., Suganya, R., Lekha, P., **Poornima Pandian.**, et.al., Developed a Machine Learning and Deep Learning Model for 5G MIMO Data Based Beam Selection and Intelligent Network Analytics. SN COMPUT. SCI. 6, 203 (2025). **(Scopus Indexed)**
- Wekalao, J., Mandela, N., Selvam, A. K., Venugopal, S., Ravi, D., **Pandian, P.**, & Rashed, A. N. Z. (2024). Graphene metasurface based biosensor for COVID-19 detection in the terahertz regime with machine learning optimization using K-nearest neighbours regression. Plasmonics, 1-23. **(SCI Indexed)**
- Subbiah, P., Nagappan, K., Tamil, S. A., **Poornima.**, & Bellam, K. (2024). Industry 4.0 in Manufacturing, Communication, Transportation, Healthcare. In Industry 4.0, Smart Manufacturing, and Industrial Engineering (pp. 299-316). CRC Press. **(Scopus Indexed)**
- **Pandian, P.**, Selvaraj, C., & Priyanga, S. (2024). Spectrum Sensing and Sharing for Internet of Things. In Spectrum and Power Allocation in Cognitive Radio Systems (pp. 224-240). IGI Global. **(Scopus Indexed)**

- **Pandian, P., & Selvaraj, C. (2023).** An incentive-based dynamic energy efficient spectrum allocation for cognitive radio networks. *Automatika*, 64(4), 1234-1243. *(SCI Indexed)*

Conference Details

- Saikrishnan, S., & **Pandian, P.** (2025, June). CNN-Driven QAM-Modulation Classification for Cognitive Radio-based IoT Networks. In 2025 1st International Conference on Radio Frequency Communication and Networks (RFCoN) (pp. 1-6). IEEE. *(Scopus Indexed)*
- Raja, J., **Pandian, P.**, Jebaraj, J., & Shakhikaavya, R. (2024, October). Unmanned Coconut Tree Climbing Machine with Improved Gripping Using Gecko Technology. In 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (pp.1-5). IEEE. *(Scopus Indexed)*
- Panjavarnam, B., **Poornima, P.**, & Subathra, K. (2024, April). Network Traffic Prediction in 4G-LTE Using Machine Learning Techniques. In 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT) (pp. 1-6). IEEE. *(Scopus Indexed)*
- **Pandian, P.**, Bose, P., Uma, M., Susithra, K., Panchami, B. G., & Reshma, R. (2024, April). Intelligent Sensor Based Smart Irrigation System for Sustainable Agriculture. In 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT) (pp. 1-5). IEEE. *(Scopus Indexed)*
- **Pandian, P.**, Selvaraj, C., Bhalaji, N., Depak, K. A., & Saikrishnan, S. (2023, April). Machine learning based spectrum prediction in cognitive radio networks. In 2023 International Conference on Networking and Communications (ICNWC) (pp. 1-6). IEEE *(Scopus Indexed)*
- **Poornima, P.**, & Chithra, S. (2020). Optimization of sensing time in cognitive radio networks based on localization algorithm. In Sustainable Communication Networks and Application: ICSCN 2019 (pp. 38-48). Springer International Publishing. *(Scopus and WoS Indexed)*

Online Courses details

Sl. No	Title	Certification Authority	Month/Year
1.	Teaching and Learning in General Programs: TALG	IIT	October 2025

2.	Technical Communication for Engineers	IIT	October 2025
3.	Principles of Digital Communications	IIT	October 2025
4.	Quantum Expert with Amazon Braket	IISc Bangalore and QPiAI Technologies	June 2025
5.	Communication Networks	IIT-M	April 2025
6.	Principles of Communication Systems – I	IIT-M	April 2025
7.	Principles and Techniques of Modern Radar Systems	IIT-M	October 2024
8.	Simulation of Communication Systems Using MATLAB	IIT-M	October 2024
9.	Introduction to Quantum Computing: Quantum Algorithms and Qiskit	IIT-M	October 2024
10.	Principles of Signals and Systems	IIT-M	April 2024
11.	Eight modules of NITTT	NITTTR	February 2024
12.	Machine Learning and Deep Learning - Fundamentals and Applications	IIT-M	October 2023
13.	Electromagnetic Theory	IIT-M	October 2023
14.	MATLAB programming for Numerical Computation (NPTEL)	IIT-M	January – March 2021 (8 weeks)

PATENTS DETAILS:

S.NO.	Title of the Patent	Application No.	Issue date	Status
1	An Efficient Wireless Power Transfer System with Meta surface for 5G Applications	202441091288	23/11/2024	Published

2	Design and Implementation of Modified Rectangular Dual Band Antenna for ISM Band Applications	202441069789	20/09/2024	Published
3	Compact wideband octagonal shaped Complementary Split Ring Resonator (CSRR) for sub – 6 GHz fifth generation applications.	202441026949	12/04/2024	Published
4	Miniaturized Honeycomb-Shaped Frequency Selective Surface (FSS) for mm Wave 5G Applications.	202441018039	22/03/2024	Published

FUNDED PROJECTS:

- Coordinator of Sri Sairam Engineering College sponsored Five days FDP on “Perspectives of 6G towards Next-Gen Communications” conducted in the year 2025 with the sanctioned amount of Rs.65,000.
- Co-Coordinator of AICTE-ATAL sponsored Six days FDP on “Quantum Computing and its future scope” conducted in the year 2023 with the sanctioned amount of Rs.3,50,000.