Ms. M. UMA	
Designation:	**Assistant Professor**
Qualification:	**M.E., Ph.D.,(Pursuing)**
Area of specialization:	**COMMUNICATION SYSTEMS**

Experience : (As On June 2025)	**Industrial Experience**	**Teaching Experience**
	-	**9 Years 5 Months**

Number of workshop / FDP attended:	**Number of Workshops**	**Number of FDPs**
	8	**23**

Publications:	**Conference**		**Journal**		
	National	**International**	**SCI**	**Scopus**	**Others**
	1	**3**	**-**	**1**	**2**

Patents:	**National**	**International**
	7	**-**

Professional Body Membership:	**ISTE – Life Member** **IETE - Life Member** **IEEE - Member**
Staff Achievements:	• Served as a Resource Person and delivered a Guest lecture on the topic "8086 Architecture and Pin Configuration"

organized by Department of ECE, Francis Xavier Engineering College, Tirunelveli on 3rd February 2026.

- Completed Certification course on PANCHAYAT ADMINISTRATION and RURAL DEVELOPMENT SCHEMEs during Sep 2025.
- Received NPTEL Discipline Star, NPTEL Believer, NPTEL Motivated Learner Certifications during July-Dec 2025.
- Received Top Performing Mentor Certificate for the NPTEL online Certification Course during Jan – Apr 2025.
- Served as a Resource Person and delivered a Guest lecture on the topic "Classification and Applications of Power Amplifiers" organized by Department of ECE, Francis Xavier Engineering College, Tirunelveli on 6th August 2025.
- Received IETE Mentor Certificate for mentoring the Project titled SMART HYBRID SWITCH OPTIMUM ENERGY NATIONAL ENERGY CONSUMPTION WITH IOT INTEGERATION in ELITECCOM 2025 Project Expo - Fourth National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication and Computers organized by IETE Chennai Centre during 20, February 2025.
- Participated as Proctor for the IEEE Xtreme 18.0 event organized by IEEE in October 2024.
- Contributed as Reviewer for the 2024 International Conference on Communication, Computing and Internet of Things, held on 17th and 18th April 2024.
- Won a cash prize for publishing a paper in the Annexure II Journal in K.L.N.C.I.T in the year 2015.
- Secure 100% Result in Digital Signal Processing in the year 2012 K.LN.C.IT.
- Students guided by me got Best Project award in the year 2015 in K.LN.C.IT.

Workshop Details:	Sl. No.	Title	Venue	Month/Year
	1.	Awareness Workshop On Intellectual Property Rights & Innovation - 2022 (IPR – 2022)	Centre for Intellectual Property Rights (CIPR), Anna University, Chennai	September 2022

	Sl. No.	Title	Venue	Month/Year
	2.	Advanced Electromagnetics and Applications	SSN College of Engineering, Chennai	May 2021
	3.	Universal Human Value on the theme Inculcating Universal Human Values in Technical Education	All India Council For Technical Education	December 2020
	4.	TEQIP Sponsored Workshop On "Computational Electromagnetics And Antennas	Thiagarajar College Of Engineering	March 2014
	5.	Wavelet And Sparse Signal Processing	KLN College Of Information Technology	February 2014
	6.	National Workshop On Statistical Data Processing Research Focus	KLN College Of Information Technology	September, 2013
	7.	Research Issues In Microwave And Optical Networks	KLN College Of Information Technology	June, 2011
	8.	Circuit Simulation & PCB Design Using OrCAD	Anna University Regional Center Coimbatore	February,2011
FDP Details:	**Sl. No.**	**Title**	**Venue**	**Month/Year**
	1.	"Cutting-Edge RF/mm-Wave and THz Antenna Technologies for modern Defence, Space and 5G/ 6G Wireless Applications"	NIT Warangal,	May 2025
	2.	ATAL FDP on Recent Developments in RF and Antenna Design for various applications	Government Engineering College, Rajkot	JAN 2025

	3.	ATAL FDP on Quantum Computing: From Theory to Practice	Manipal Institute of Technology, Bengaluru	Jan 2025
	4.	Emerging Research Trends in Artificial Intelligence and Internet of Things	Sri Sairam Engineering College, Chennai	Feb 2024
	5.	ATAL FDP on Emerging Technologies for 5G/6G Wireless Communication	DON BOSCO Institute of Technology	Sep 2024
	6.	Future Trends and Design Challenges in 5G/6G Wireless Technologies	Vel Tech Multi Tech Dr.Rangarajan Dr.Sakunthala Engineering College	Nov 2024
	7.	Professional Development Programme on ICT for Teaching and Learning	NITTR Chennai	June 2024
	8.	Faculty Development Program on Universal Human Values - II	Sri Sai Ram Engineering College	Dec 2023
	9.	ATAL *Sponsored* Six Days Faculty Development Program On *"Quantum Computing and Its Future Scope"*	Sri Sai Ram Engineering College	Dec 2023
	10.	6 weeks/ 36 Hrs Online Certificate Course in 5G Mobile Communications	Wireless Access Divisio NTIPRIT, Ghaziabad.	Aug-Sept 2023
	11.	Five Days Short Term Training Program (STTP) on "Breaking Boundaries in Healthcare: Futuristic Antenna Design for Telemedicine and Biomedical Applications using Artificial Intelligence	CARE College Engineering, Trichy	Aug 2023

	12.	FDP on DEEP LEARNING TOOLKITS AND THEIR DIVERSE USES	Department of CSBS Association with LTIMINDTree. Sri Sai Ram Engineering College	July 2023
	13.	Faculty Empowerment Programme on Powering IoT Using Raspberry Pi or Arduino	CEG Campus, Anna University Chennai.	March 2023
	14.	Research Trends in Antenna Design and Beyond Applications	CARE College of Engineering	December 2022
	15.	Five Days Short Term Training Program (STTP) on Antenna Design: Future Trends and New Applications	CARE College of Engineering, Trichy in association with IEEE CARE Students Branch-Madras Section & Tesla Minds, Chennai	August 2022
	16.	Three Day Induction Program for Research Scholars	Center for Research, Anna University Chennai	March 2022
	17.	"AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Modern Antenna Technologies for Futuristic Wireless Communication Systems"	Guru Jambheshwar University of Science and Technology, Hisar,	August 2021
	18.	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "MEMS Technology & Microsensors	National Institute of Technology Meghalaya.	July 2021

19.	Recent Trends In Antenna And Microwave Technology	CARE College of Engineering, Jointly organized by IEEE Students Branch- Madras Section	June 2021
20.	AICTE QIP Short Term Course on Principles and Advances in Electromagnetics	IIT MADRAS	March 2021
21.	International Webinar On Digital Transformation And Opportunities In Emerging Technologies	Dr.NGP Institute Of Technology	August 2020
22.	IEEE- MADRAS SECTION Sponsored National Seminar On Recent Trends In Rf, Antennas And Mic	KLN College Of Engineering	April 2015
23.	Innovative Research Prospects On Wireless Sensor Networks	KLN College Of Information Technology	December 2014

Publication Details:

1. Published a book Chapter titled "Advances in artificial pancreas technology: A comprehensive review and future prospects" in the book A Study on Next Generation Materials and Devices in the year 2025.
2. Presented a paper titled "Early Parkinson's Disorder Prediction byRandom Forest on multimodal bio medical information in the International Conference on Digital Innovation for Sustainable Solutions (ICDISS - 2025) organized by School of Computer Applications, Manav Rachna International Institute of Research and Studies during Nov 2025.
3. Presented a paper titled "Design of A High Gain and Isolated Orthogonal Polarized Dual-Port Slotted MIMO Antenna for ISM Band Application" at the International Conference on Wireless Communication, Signal Processing and Networking (WiSPNET 2025) organized by SSN College of Engineering, Chennai and the same is published in IEEE Xplorer.

4. Published a Paper titled "Intelligent Sensor Based Smart Irrigation System For Sustainable Agriculture" in the IEEE Xplorer in the year 2024.
5. M Shanmuga Priya, M Uma, Automotive Antenna Technology: An Overview And Innovations, International Journal of Research and Analytical Reviews (IJRAR), May 2023, Volume 10, Issue 2
6. D. Venugopal, A. Sivanantha Raja, M. Uma, Multistage Compression of Encrypted Images for Band Effective Secured Transmission and Reconstruction, INTERNATIONAL JOURNAL OF TOMOGRAPHY AND SIMULATION, published by CESER. Vol. 25, Issue 1, (2014).
7. A Fast and Efficient De-Noising algorithm for the removal of salt and pepper noise from highly corrupted images." presented in a National level conference on Signal Processing, Communication and VLSI Design., organised by Anna University Coimbatore from 07-May-2010 to 08-May-2010.

Online Course Details:

Sl.No	NPTEL COURSE	Certification Authority	Month/ Year
1.	Principles of Digital Communications	IIT Bombay	Oct 2025
2.	Ethics in Engineering Practice	IIT Kharagpur	Oct 2025
3.	Teaching and Learning in General Programs: TALG	IISc Bangalore	Aug 2025
4.	Technical Communication for Engineers	IIT Rhoorkee	Aug 2025
5.	Digital Communication using GNU Radio	IIT Bombay	Apr 2025
6.	Principles of Communication Systems – I	IIT - Kanpur	Apr 2024
7.	Simulation of Communication Systems Using MATLAB	IIT - Guwahati	Oct 2024
8.	Principles of Signals and Systems	IIT - Kanpur	Apr 2024
9.	Machine Learning and Deep Learning - Fundamentals and Applications	IIT - M	Oct 2024

10.	Eight modules of NITTT	NITTTR	February 2024

Patent Details:

1. Published a Patent Titled Published a Patent Titled AI-ENHANCED PREDICTIVE MAINTENANCE SYSTEM FOR INDUSTRIAL IOT USING HYBRID TIMESERIES MODELING during the year 2025.
2. Published a Patent Titled Published a Patent Titled MACHINE LEARNING BASED APPROACH FOR AUTOMATING HARDWARE ARCHITECTURE DESIGN during the year 2025.
3. Published a Patent Titled Published a Patent Titled MEMS-BASED ENERGY HARVESTING DEVICE FOR WIRELESS SENSORS during the year 2025.
4. Published a Patent Titled MIMO ANTENNA SYSTEM OPTIMIZED FOR 5G NETWORKS during the year 2024.
5. Published a Patent Titled Design and Implementation of Modified Rectangular Dual Band Antenna for ISM Band Applications during the year 2024.
6. Published a Patent Titled Published a Patent Titled Design and Implementation of Modified Rectangular Dual Band Antenna for ISM Band Applications during the year 2024.
7. Published a Patent Titled Published a Patent Titled Miniaturised Honeycomb-Shaped Frequency Selective Surface (FSS) for mmWave 5G Applications during the year 2024.