

Name : Dr P.KAVITHA

Designation : Assistant Professor

Mail ID :pkavitheece@uce.annauniv.edu

- **Research Area**: Wireless Communication, Signal Processing

- **Educational Qualifications**:

Qualification	Department	Year (From -To)	Percentage	Class
B.E	ECE	1998-2002	81.2	First Class with Distinction
M.E	Communication Systems	2007-2009	9.28	First Class with Distinction
Ph.D	ICE	2019		

- **Experience: 17 Years 4 Months**

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
		DD-MM-YYYY	DD-MM-YYYY	
National Engineering College, Kovilpatti	Lecturer	18-11-2002	30-04-2003	5 months 13 days
	Lecturer	04-06-2003	20-07-2007	4 years 1 month 17 days
	Lecturer	01-06-2009	06-04-2011	1 year 10 months 6 days
	Senior Lecturer	07-04-2011	31-10-2011	6 months 25 days
	Assistant Professor (Sr. Grade)	01-11-2011	31-07-2018	6 years 9 months
Velammal College of Engineering and Technology, Madurai	Associate Professor	09-08-2021	02-02-2024	2 years 5 months 23 days
SRM Madurai College of Engineering and Technology, Sivaganga	Assistant Professor (Sr. Grade)	03-03-2025	28-11-2025	8 months 25 days
University College of Engineering Ariyalur, Ariyalur	Assistant Professor	01.12.2025	Till Date	5 months

- **Additional / Academic Responsibilities at University:**
  - Class in-charge for Second Year ECE students
  - Department Exam Cell In-charge

- **Professional Activities:**

  Life Member, ISTE

- **Completed B.E/M.E Projects:**

Number of M.E. Project Guided : **9**

1. Optimization of chunk size in multi cell OFDMA system
2. Joint subcarrier and power allocation in LTE advanced networks
3. Channel estimation for LTE downlink system in high mobility scenario
4. Detection and assessment of macular edema from color retinal images
5. Sample clock offset detection and correction in LTE downlink
6. Cell search with fast PSS detection and frequency synchronization for LTE based OFDM system
7. Performance analysis of LTE OFDM systems
8. Data rate improvement in underwater acoustic communication using MIMO OFDM
9. Quantifying the capacity loss in MIMO Adhoc networks due to imperfect CSIT

Number of B.E. Project Guided : **22**

- **Sponsored Research Activities:**

Name of the event	**Sponsored agency/ Funds received (Rs.)**	**Venue/Year**
Digital Communication	Anna university Supported	National Engineering College, 2016.
Ninth National Conference ADELCO	Self-supported	National Engineering College, 2013
Issues and Challenges in Underwater Acoustic Communication	DRDO – 30,000/-	National Engineering College, 2011
Workshop on Graphical System Design for Engineering Applications using LABVIEW-NEC, Kovilpatti	Self-supported	National Engineering College, 2010
(STTP) on Advances in Optical Fiber Technology & networks	AICTE – 2,00,000/-	National Engineering College, 2009

- **List of Seminar / Short Term Course /FDP/ Workshop attended: (Within India)**
  - Faculty Development Programme on Teaching Methods from 4.12.225 to 05.12.2025 at IIT Madras.
  - Online Faculty Development Programme on Recent Trends in Artificial Intelligence, Machine Learning, and VLSI Design and Development conducted NIT Warangal in association with Dr.B.C.Roy Engineering College, Durgapur during 28th April to 07th May 2025.
  - Online Faculty Development Programme on Machine Learning for Data Science using Python conducted NIT Warangal and Anil Neerukonda Institute of Technology and Science Visakhapatnam during 19th to 28th December 2022.

- Quality Improvement Programme on Technology Enabled Teaching Learning Process conducted by National Institute of Technical Teachers Training and Research at National Engineering College from 27th to 29th May 2017.
- Workshop on Periodic Structure and Metamaterial based antennas, National Engineering College, Kovilpatti, 6th, January 2017
- Workshop on Intellectual Property Rights, National Engineering College, Kovilpatti, 28 Jan. 2016.
- Workshop on Formulation of Research and Development Grant proposals by Scientists and Technologists, National Engineering College, Kovilpatti, 18- 20, November 2015.
- 17th ISTE & P Section Annual convention on Empowering Indian Engineering Education for Global Expectations, National Engineering College, Kovilpatti, 07-08, November 2014.
- Seminar on SCADA and its Recent Trends, National Engineering College, Kovilpatti, 18th April 2014.
- A Hands- on – Seminar on LATEX Essentials for Beginners, National Engineering College, Kovilpatti, 14 & 15 June 2013.
- Workshop on SMART Ph.D Planning – A Realistic Approach towards Goal, National Engineering College, Kovilpatti, 11th August 2012.
- AICTE sponsored two-day seminar on FPGA for DSP Applications, National Engineering College, Kovilpatti, 17-18, June 2011.
- One-day faculty Symposium on MIMO-OFDM Wireless Systems, SRM university, Kattankulathur, 27th January 2011.
- Workshop on Image Processing Applications using DSP Processors, National Engineering College, Kovilpatti, 24th and 25th September 2009.
- Mentors development programme conducted by department of Computer Science and Engineering and Information Technology, National Engineering /College, 11th & 12th September 2004.
- AICTE sponsored two week staff Development Programme on "Adaptive Signal Processing and their Applications to Speech Processing", R.V.S.College of Engineering and Technology, Dindigul, 3-15, May 2004.
- Faculty development programme on "Electronic Circuits II", conducted by College of Engineering, Guindy, Chennai from 11th to 15th November, 2003.

➢ **International Conferences Participated:**

➢ Publications :

a. International Journals:

- Kavitha Kamatchi, Kavitha Pillappan, Angayarkanni V and Prabu Krishnan, "SLIPT Enabled Ground-to-UAV FSO Communication for SAGNET in 6G-IoT Systems," in *IEEE Transactions on Green Communications and Networking*, vol. 9, no. 3, pp. 1268-1279, Sept. 2025.
- P. Kavitha, K. Kavitha, "Hybrid NOMA for Latency Minimization in Wireless Federated Learning for 6G Networks", Radioengineering, vol. 32, no.4, pp. 594-602, December 2023.
- P.Kavitha, V.S.Madhumitha, R.Sameena Banu, and M.V.Subashree, "Performance Improvement of PSO Based Resource Allocation for Secure URLLC", International Journal of Innovative Research in Computer and Communication Engineering, Volume 10, Issue 5, May 2022.

- P. Kavitha, S. Shanmugavel, "Analytical Evaluation of Chunk-based Tractable Multi-cell OFDMA system", Radioengineering Journal, vol. 27, no.1, pp. 313-325, April 2018.(Impact Factor: **1.048**)
- P. Kavitha, S. Shanmugavel, "Spectral Efficiency Analysis of Multi Cell OFDMA System with Sectoring", ICTACT Journal on Communication Technology, vol.: 08, no.: 01, March 2017.
- D. Sivasankari, P.Kavitha, "Outage probability and outage capacity in multi-cell OFDMA system" I*nternational Journal of Applied Engineering Research,* 2015, 10(49), pp. 221–226
- S. Deepa Princy, P. Kavitha, "Joint subcarrier and power allocation in LTE-advanced networks", I*nternational Journal of Applied Engineering Research,* 2015, 10(49), pp. 300–305.

➢ Conferences

- P. Kavitha, S. Shanmugavel, "Spectral Efficiency Analysis of Chunk Based Multi-Cell OFDMA System Over Nakagami-m Fading Channel", International Conference on Advanced Computing & Communication Systems 2017.
- P. Kavitha, S. Shanmugavel, "Performance Analysis of Resource Allocation in LTE OFDMA Systems", International conference on Smart System Technologies 2017.
- P. Kavitha, S. Shanmugavel , "Spectral efficiency analysis of Multi-cell OFDMA System with sectoring", International Conference on Broadband and Wireless Technologies, June 2016.
- D. Sivasankari, P. Kavitha, "Outage probability and outage capacity in Multi-cell OFDMA system", International Conference on Emerging Trends in Engineering, Technology & Management(ICETM-2015), 16-18 April 2015.
- S. Deepa Princy, P. Kavitha , "Joint Subcarrier and Power Allocation in LTE-Advanced Networks", International Conference on Emerging Trends in Engineering, Technology & Management(ICETM-2015), 16-18 April 2015.
- B. Dinesh Kumar, P. Kavitha P and V.Vijayarangan, "Channel Estimation for LTE Downlink System in High-Mobility Scenario", AICTE Sponsored National Conference on Research Challenges in Wireless Communication Systems and VLSI Design (NCWCV-14), 14th and 15th March,2014 organized by Department of Electronics and Communication Engineering, PSG College of Technology, Coimbatore.
- B.S. Sujethra, P. Kavitha , "Detection Assessment of Macular Edema from Color Retinal Images", International Conference on Emerging Trends in Science, Engineering, Business and Disaster Management (ICBDM-2014) , 28th February, 2014.
- R. Saranya, P.Kavitha, "Sample Clock Offset Detection and Correction in LTE Downlink", National Conference on Recent Trends in Information and Communication Engineering (NCRTICE-2013), 20th March 2013.
- R. Saranya, P.Kavitha, "Detection and Correction of Sample Clock Offset in LTE downlink", International Conference on Computational intelligence and advanced manufacturing research(ICCIAMR – 2013).
- S.Aruna Geetha, P.Kavitha, "Cell Search with PSS detection & frequency synchronization for LTE", National Conference on Computational Emerging Trends in information and communication, 2013.

- M.Vijayalakshmi, P.Kavitha, V.Vijayarangan, "Various Equalization Techniques in Receiver of MIMO OFDM System based LTE Standard", International Conference on Electronics and Communication Engineering (ICECE 2012), 6-7 April 2012.
- M.Vijayalakshmi, P.Kavitha, V.Vijayarangan, "Performance comparison of LTE based MIMO OFDM System", International Conference Emerging Trends in information and Communication, 2012.
- Naveena A.Priyadharsini, P.Kavitha, "Data rate improvement in Underwater Acoustic Communication Using MIMO OFDM", National Conference "PECON 2K11" conducted by Government College of Engineering, Tirunelveli, March 2011.
- K.Karpagavalli, P.Kavitha, "Quantifying the capacity loss in MIMO ADHOC Networks due to Imperfect CSIT", in the proceedings of RACT'10.
- G. Ananthi, P. Kavitha , K. Ulagammal, S. J. Thiruvengadam, "Performance Analysis of MIMO Ad Hoc Networks with Finite Rate Feedback and Imperfect CSIT", International Conference on Wireless Communications, Networking and Mobile Computing(Wicom'09), China, Page:1- 4.

DECLARATION:

I CERTIFY THAT THE INFORMATION FURNISHED ABOVE IS CORRECT TO THE BEST OF KNOWLEDGE AND BELIEF.

DATE: Signature With date