GOVERNMENT COLLEGE OF ENGINEERING, SALEM-11

(An Autonomous Institution Affiliated to Anna University, Chennai)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

(Accredited by NBA)



INDIVIDUAL FACULTY PROFILE

1. Name of the faculty : Dr.G.KAVITHAA
2. Designation & Department : Assistant Professor & ECE
3. College with address : Government College of Engineering, Salem-11
4. Gender : Female
5. Age : 39

6. Educational Qualifications:

Name of the Degree	Specialization/ Branch	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
Ph.D.	Information and Communication Engineering	2016	-	Anna University	-	-
ME	Communication Systems	2008	Sona College of Technology, Salem	Anna University Chennai	85	First class with distinction
BE	ECE	2003	IRTT, Erode	Bharathiar University	83	First class with distinction

7. Previous Experience as on November 2021:

Name of the College / Industrial	Designation	Date of Joining	Date of Relieving	Experience		
				Years	Months	Days
Government College of Engineering ,Salem	Assistant Professor	08.04.2013	-	8	8	-
Paavai Engineering College, Namakkal	Assistant Professor	02.06.2008	06.04.2013	4	10	-
VMKV Engineering College, Salem	Lecturer	02.12.2005	31.07.2006	-	8	-
Paavai Engineering College, Namakkal	Lecturer	24.05.2004	30.11.2005	1	6	-
VMKV Engineering College, Salem	Lecturer	19.05.2003	21.05.2004	1	-	-
Total Experience				16	8	-

8. Additional works:

S.No.	Work
1.	Assistant TEQIP Coordinator
2.	Department TEQIP Coordinator
3.	Electronic Circuits Lab Incharge
4.	Class Advisor for BE(ECE) 2016-2020 Batch
5.	Anna University Research Supervisor
6.	Member of BoS (GCE Salem & Adhiyamaan College of Engineering, Hosur)
7.	Reviewer for reputed journals
8.	Life member in ISTE
9.	Central Valuation (Zone 7)

9. FDP / Workshop Details:

Number of FDP/Workshop conducted	13
Number of FDP/Workshop Attended	49

10. Journal / Conference Publications:

	International	National
Number of Journal Publications	18	-
Number of Conference Publications	5	4
Number of Patents	-	4
Number of Book Chapters	-	3

Dr.G.Kavithaa, Assistant Professor / ECE

LIST OF FDP/ WORKSHOP ORGANIZED:

S.No.	Title of the Programme	Date	Domain or Area of Training	Number of participants	Year
1.	International Conference on Advances in Robotics, Energy and Network Systems (ICARENS 2017)	09.03.2017 to 10.03.2017	International Conference	Papers - 62	2017
2.	One Day workshop on “eSim, a first course in the IoT series”	21.09.2019	IoT and Electronics	Internal-7 External-13	2019
3.	FDP on “Advanced Techniques in Digital Signal and Image Processing using MATLAB”	07.06.2016 To 20.06.2016 (14 days)	Signal and Image Processing	Internal-43 External-8	2016
4.	Two week ISTE workshop on “Computer Networking”	30.06.2014 to 05.07.2014 (6 Days)	Computer Networks	Internal/25	2014
5.	Three Days Guest Lecture for the students of Government Engineering College, Raipur under TEQIP-III twinning activity	15.03.2021 to 17.03.2021 (3 Days)	Electronics and Communication	External/61	2021
6.	Two weeks Guest Lecture for the students of Government Engineering College, Raipur under TEQIP-III twinning activity	01.02.2021 to 12.02.2021 (12 Days)	Analog and Digital Electronics	External/61	2021
7.	Three Days Student workshop on Real Time Networking and Security at ECE Department, GCE, Salem	10.09.2020 to 12.09.2020 (3 Days)	Networking and Security	Internal/112	2020
8.	Two Days Student workshop on Hands-on training on Measuring Instruments	06.02.2020 to 07.02.2020 (2 Days)	Measurements and Instrumentation	Internal/70	2020
9.	Student Workshop on “Advanced Measuring Instruments”	13.02.2018 to 14.02.2018	Measurements and Instrumentation	Internal/114	2018
10.	Student Workshop on “Fundamentals of Computer Programming”	10.02.2017 to 11.02.2017 17.02.2017 to 19.02.2017 (5 days)	Fundamentals of programming	Internal/69	2017
11.	Student Workshop on “Advanced Microcontrollers”	10.02.2017 to 12.02.2017	Microcontrollers	Internal/65	2017
12.	Student Workshop on “Training on C, C++ Programming”	29.09.2016 To 15.10.2016 (30 hours)	Fundamentals of programming	Internal/65	2016
13.	Student Workshop on “Embedded System Design using RL78 Microcontroller”	23.09.2016 To 24.09.2016	Microcontrollers	Internal/65	2016

LIST OF FDP/ WORKSHOP ATTENDED:

S.No.	Title of the Programme	Date	Venue	Duration	Year
1.	AICTE sponsored one week short term training programme on Emerging Trends in Advanced Signal and Image Processing (Slot-4)	03.05.2021 to 08.05.2021	Malla Reddy Engg College for Women	6 Days	2021
2.	AICTE-ISTE sponsored Online Induction / Refresher Program on “Machine Learning and Pattern Recognition (Phase-III)”	21.12.2020 to 26.12.2020	Dept of ETC, SSBT’s CE&T, Jalgoan	6 days	2020
3.	FDP on Next Generation Techniques in Wireless Communication	02.11.2020 to 06.11.2020	Ajay Kumar Garg Engg College, Ghaziabad, UP	5 days	2020
4.	Online Workshop on How to publish in Scopus indexed journal	31.10.2020	Gujarat National University, Gujarat	1 Day	2020
5.	ATAL Online FDP on "Capacity Building"	05.10.2020 to 09.10.2020	Dr H. S. Gour Vishwavidyalaya Sagar, M.P.	5 days	2020
6.	National Webinar on Management of Stress and anxiety through Yoga	03.10.2020 (11 – 12 pm)	Mangalore University	1 hour	2020
7.	Webinar on Enabling Communication Technologies for Smart Cities	03.10.2020 (10 – 11 am)	Sri Krishna College of Engg, Coimbatore	1 hour	2020
8.	CII Super 5 Series on Total Quality Management	9.10.2020 to 6.11.2020 on weekly basis	Confederation of Indian Industry Salem Zone	5 days	2020
9.	Hands-On Training on Contemporary Applications of Machine Learning / Artificial Intelligence for Computer Vision, TEQIP-III Sponsored	18.09.2020 To 19.09.2020	Department of ECE, GCE, Salem	2 Days	2020
10.	ATAL Online FDP on "Control Systems & Sensors Technology"	17.08.2020 to 21.08.2020	GCE, Srirangam	5 Days	2020
11.	One Day Online Webinar On "E-Learning Lab for Digital Electronic Circuits using LTSPICE"	14.08.2020	Department of ECE, TPGIT, Vellore	1 Day	2020
12.	Webinar on “Opportunities and Challenges for Artificial Intelligence”	04.08.2020	IEEE Madras Chapter	1 Day	2020
13.	Online FDP on “Research Aspects in Signal and Image Processing”	27.07.2020 to 31.07.2020	Dept of ECE, Mohamed Sathak AJ CE, Chennai	5 days	2020
14.	IEEE - ABET Webinar on Accreditation and Quality of Engineering Education in South Asia	08.07.2020 (1 Day)	IEEE India Council	1 Day	2020
15.	One week online certificate course on Digital Teaching Techniques	29.06.2020 to 04.07.2020	ICT Academy	1 week	2020
16.	Webinar on Recent Trends in Semiconductor Industry and ASIC verification	13.06.2020	Paavai Engg College, Namakkal	1 Day	2020
17.	IEEE webinar on Art and Challenges of writing papers for IEEE transactions	08.06.2020	IEEE Bangalore webinar – Learning series	1 Day	2020

18.	Industrial Training for Faculty on Communication and Networking Technologies	08.06.2020 to 26.06.2020	RGMTTC, BSNL, Chennai	3 weeks	2020
19.	TEQIP-III Sponsored Two day FDP on Design, Develop and Deliver online courses through MOODLE platform	23.04.2020 to 24.04.2020	DTE SPIU - Tamil Nadu & CIT, Coimbatore	2 days	2020
20.	TEQIP III sponsored FDP on Embedded Control and Monitoring using LabVIEW	24.02.2020 to 01.03.2020	GCE, Salem	7 days	2020
21.	TEQIP III sponsored FDP on Cyber Security and Ethical Hacking – Securing the connected world	22.01.2020 to 28.01.2020	GCE, Salem	7 days	2020
22.	NPTEL course Effective Writing	Jan – Apr 2020	IIT, Roorkee (Online)	4 Weeks	2020
23.	NPTEL course Matlab Programming for Numerical Computation	Jan – Apr 2020	IIT, Madras (Online)	8 Weeks	2020
24.	FDP on “Neuro Linguistic Programming Techniques on Effective Teaching”	20.06.18 to 21.06.18	GCE, Salem	2 days	2018
25.	FDP on “Embedded Systems and VLSI Design”	09.05.2018 to 15.05.2018	GCE, Salem	7 days	2018
26.	FDP on “Industrial Drives Automation and Intelligent Control”	01.03.17 to 07.03.17	GCE, Salem	7 days	2017
27.	Workshop on Formulation of Funded Research and Development Project Initiatives for Engineering Faculty	24.02.2017 to 25.02.2017	Jaipur	2 days	2017
28.	GIAN Course on “Ultra-Large-Scale Integration (ULSI) Technology and Nanoelectronic Devices”	19.12.2016 to 24.12.2016	IIT Kharagpur	6 days	2016
29.	Workshop on “Outcome Based Education”	14.10.2016 to 15.10.2016	GCE, Salem	2 days	2016
30.	FDP on “89C51 Based Embedded System Applications - Industrial Perspective”	26.07.2016 to 01.08.2016	GCE, Salem	7 days	2016
31.	FDP on “Advanced Techniques in Digital Signal and Image Processing using MATLAB”	07.06.2016 to 20.06.2016	GCE, Salem	14 days	2016
32.	Workshop on “Outcome based Education and Accreditation”	08.02.2016 to 09.02.2016	GCE, Salem	2 days	2016
33.	FDP on “System Design using SoC FPGA”	05.01.2016 to 11.01.2016	GCE, Salem	7 days	2016
34.	FDP on “Hands on Training on Big Data Analytics”	10.12.15 to 16.12.15	GCE, Salem	7 days	2015
35.	FDP on “Hands-on training on Advanced Measuring Equipment”	03.11.15 to 09.11.15	GCE, Salem	7 days	2015
36.	FDP on “Advanced Technology in Solar PV System – Industrial Perspective”	27.10.15 to 02.11.15	GCE, Salem	7 days	2015
37.	“Foundation Skills in Integrated Product Development (FSIPD)” Train-the-Trainer Program	27.09.15 to 01.10.15	Anna Univ, Chennai	5 days	2015
38.	FDP on “Workshop: An Introduction to Outcome Based Education”	06.05.15	GCE, Salem	1 day	2015

39.	Two-week ISTE STTP on “Introduction to Design of Algorithms”	(27.04.15 to 24.05.15- online activity equivalent to one week & 25.05.15 to 30.05.15- Physical)	GCE Salem Remote Center	2 weeks	2015
40.	FDP on “The Art Of Teaching: Pedagogical Tools And Techniques”	09.12.2014 to 11.12.2014	GCE, Salem	3 days	2014
41.	ISTE workshop on “Computer Programming”	(20.05.14 to 15.06.14 - online activity equivalent to one week & 16.06.14 to 21.06.14- Physical)	GCE Salem Remote Center	2 weeks	2014
42.	Coordinators’ Workshop on Computer Networking	05.05.2014 to 09.05.2014	IIT, Bombay	5 days	2014
43.	Workshop on “Essentials of embedded systems and their applications”	05.03.2014 to 07.03.2014	Ooty	3 days	2014
44.	FDP on “Emerging Directions in Digital Image Processing”	04.11.2013 to 10.11.2013	GCE, Salem	7 days	2013
45.	FDP on “EMI/EMC and RF circuit design”	21.10.2013 to 27.10.2013	GCE, Salem	7 days	2013
46.	National Workshop on “Network Simulation Tools”	09.10.2013 to 10.10.2013	Anna Univ Regional Centre, Coimbatore	2 days	2013
47.	Workshop on “VLSI labs solutions using Tanner EDA and Mentor Graphics tools”	16.08.2013 to 17.08.2013	GCE, Salem	2 days	2013
48.	ISTE workshop on “Analog Electronics”	04.06.2013 to 14.06.2013	GCE Salem Remote Center	11 days	2013
49.	FDP on “SoC and Advanced Digital Design using VHDL”	13.05.2013 to 26.05.2013	GCE, Salem	14 days	2013

LIST OF PUBLICATIONS:

Ph.D Guidance

Number of scholars completed: 01

Number of scholars under guidance: 05

Book Chapters:

1. Dr. B. Ramesh, Dr. G. Kavithaa, Dr. S. Satish Kumar, Dr. T. Karthikeyan, (2021) 'Materials Engineering and Technology – Ferrous and Non-ferrous Metals', Contemporary Research in Engineering and Management (CREM, July 2021), ISBN: 978-93-91193-03-4, pp 1–29. Publisher – Manglam Publications, Delhi-110 053, India.
2. Dr. B. Ramesh, Dr. G. Kavithaa, Dr. S. Satish Kumar, Dr. T. Karthikeyan, (2021) 'Materials Engineering and Technology – Heat treatment and Surface heat treatments', Emerging Research in Engineering and Management (EREM, June 2021), ISBN: 978-93-90856-12-1, pp 51–70. Publisher – Anvi Books and Publishers, Delhi-110 053, India.
3. Dr. B. Ramesh, Dr. G. Kavithaa, Dr. S. Satish Kumar, Dr. T. Karthikeyan, (2021) 'Materials Engineering and Technology – Basic concepts, Phase diagrams and Phase transformation', Advancements in Engineering and Management (AIEM, May 2021), ISBN: 978-93-91193-01-0, pp 223–247. Publisher – Manglam Publications, Delhi-110 053, India.

Patent Published

1. Title of invention: Recurrent deep neural classifiers for improving SDN-IOT Network based software recommendation system, Publication date: 08.01.2021
2. Title of invention: Smart water purifier module, Publication date: 08.01.2021
3. Title of invention: Deep learning classifier for processing mobile computing IOT based healthcare systems, Publication date: 15.05.2020
4. Title of invention: A method to securely transact data in blockchain transactions, Publication date: 07.02.2020

Journals:

International:

1. G. Kavithaa, P. Balakrishnan, S.A. Yuvaraj, 2021, "A Prognostic Energy Optimization Technique with unified power quality conditioner for energy stabilization in grid system", in Computers & Electrical Engineering, Elsevier, Vol. 94, 2021, 107360, ISSN 0045-7906, pp: 1 – 15.
2. Kavithaa, G., Balakrishnan, P. & Yuvaraj, S.A. 2021, "Lung Cancer Detection and Improving Accuracy Using Linear Subspace Image Classification Algorithm", in Interdisciplinary Sciences: Computational Life Sciences (2021), Springer, https://doi.org/10.1007/s12539-021-00468-x, pp: 1 – 8.
3. Preetha R, Kavithaa G, 2021, "Adaptive binary search tree structure for energy efficient data collection in WSN", in International Research Journal of Engineering and Technology (IRJET), April 2021, Vol. 08, Issue. 04, ISSN 2395-0056, pp: 3186 – 3192.
4. Raju Rameshkumar, **G.Kavithaa**, 2021, "An efficient cyber security using cyber data encryption security algorithm for communication", in Mukt Shabd Journal, Vol. 10, issue. 03, March 2021, ISSN 2347-3150, pp: 136 – 148.
5. **G.Kavithaa** et al, 2021, "Time dependent anomaly detection system for smart environment using probabilistic timed automaton", in Journal of Ambient Intelligence and Humanized Computing, Springer, January 2021, DOI: https://doi.org/10.1007/s12652-020-02769-3
6. A.Sheryl Oliver, **Kavithaa.G**, S.A. Yuvaraj et al, 2021, "Accurate prediction of heart disease based on bio system using regressive learning based neural network classifier", in Journal of Ambient Intelligence and Humanized Computing, Springer, January 2021, DOI: https://doi.org/10.1007/s12652-020-02786-2
7. Hao Zou, Fang Xie, Bo Du**, G.Kavithaa**, 2020, Useful lifetime estimation of solder joints in power semiconductors employed in current source and voltage source inverters, Soldering & Surface Mount Technology, ISSN: 0954-0911, December 2020, https://doi.org/10.1108/SSMT-05-2020-0018.
8. **Dr.G.Kavithaa** et al, "Reliability Enhancement of a power semiconductor with optimized solder layer thickness", IEEE Transactions on Power Electronics , June 2020, Volume: 35, Issue: 6, pp: 6397 - 6404, **DOI:** 10.1109/TPEL.2019.2951815
9. A.Sangeetha, Dr.M.Chandrasekaran, **Dr.G.Kavithaa**, 2020, "Time situate recurrence estimation technique for efficient data collection in war field sensor network", in Microprocessors and Microsystems, Elsevier, March 2020, Volume 73, https://doi.org/10.1016/j.micpro.2020.102988

10. **Dr.G.Kavithaa**, M.Prithivi Raj, 2020, “Memristor based high speed and low power consumption memory design using deep search method”, in Journal of Ambient Intelligence and Humanized Computing, Springer, March 2020, pp 1-13.
11. **Dr.G.Kavithaa**, M.Prithivi Raj, 2019, “Dynamic signal driving strategy based high speed and low powered dual edge triggered flip flop design used memory applications”, in Microprocessors and Microsystems, Elsevier, November 2019, Volume 71, https://doi.org/10.1016/j.micpro.2019.102879
12. **Dr.G.Kavitha** 2018, “Multi Attribute Real Time Traffic Inference Algorithm for Botnet Detection in Mobile Ad Hoc Network”, in Wireless Personal Communications, Springer, October 2018, Volume 102, Issue 4, pp 3465–3476, https://doi.org/10.1007/s11277-018-5384-3
13. **Dr.G.Kavitha**, Dr.M.Santhi, 2016, “Link Establishment based on Energy Efficient for Qos Improvement using Low Propagation Delay Minimum Spanning Tree in MANET”, in Asian Journal of Research in Social Sciences and Humanities, Vol. 6, Issue 9, Special, pp. 23-32, ISSN 2249-7315, DOI NUMBER: 10.5958/2249-7315.2016.00942.4
14. **Dr.G.Kavitha**, Dr.P.Valarmathie, 2016, “An Algorithm for imputing missing values in microarray gene expression data”, in Asian Journal of Research in Social Sciences and Humanities, Vol :6, Issue : 6 special, pp: 289 – 301, ISSN 2249-7315, DOI : 10.5958/2249-7315.2016.00397.X
15. **Kavitha, G** & Sundararajan, J 2014, ‘Spot Selection Technique Based Adhoc on Demand Distance Vector Routing (SSRP) for QoS Improvement in MANET Using Mobility Traces’,in International Journal of Applied Engineering Research (IJAER) ISSN 1087-1090 vol.9,no.23, pp. 22361-22377.
16. **Kavitha, G** & Sundararajan, J 2014, ‘Optimal Link Managed On Demand Routing Protocol in MANET for QoS Improvement’, International Journal of Engineering and Technology (IJET), ISSN: 0975-4024, vol. 6, no.1, pp. 146-154.
17. **Kavitha, G** & Sundararajan, J 2014, ‘A Traffic Aware AODV Routing Protocol for Mobile Ad Hoc Networks’, Australian Journal of Basic and Applied Sciences, vol. 8, no. 1, pp. 197-206.
18. **Kavitha, G** & Sundararajan, J 2012, ‘An Intelligent Routing Protocol for MANETs using Radial Basis Function Neural Networks’, in European Journal of Scientific Research (EJSR) ISSN 1450-216X, vol.89, no.3, pp. 342-349, Impact Factor 0.736.

Conference:

International:

1. Dr.G.Kavithaa, 2020. ‘Review of efficient energy consumption techniques to improve network lifetime in wireless sensor networks’ in the international web conference on smart engineering technologies 2020 (IWCSET - 2020), organized by Ramco Institute of Technology, Rajapalayam during 26 & 27th June 2020.
2. Dr.G.Kavitha & Dr.M.Santhi, 2017, “Qos Improvement Based Security Enhancement For Link Activity Monitoring Service In Mobile Ad Hoc Network”, in the Proceedings of the International Conference on Advances in Robotics, Energy and Network Systems (ICARENS 2017) Organized by Government College of Engineering, Salem on March 9 - 10.
3. Kavitha, G & Sundararajan, J 2011, ‘Self Organizing Map-Multicast Zone Routing Protocol (SOM-MZRP) in Mobile Adhoc Networks’, in the Proceedings of the International Conference ICATS2011 Organized by Paavai Engineering College during June 16-18.
4. Kavitha, G & Sundararajan, J 2009, ‘Reliable MAODV Protocol for Mobile Ad hoc Networks using RBF Neural Networks’, in the Proceedings of the International Conference Icon RFW-09 organized by IETE Bangalore Chapter during 7-10 October.
5. Kavitha, G & Sundararajan, J 2009, ‘A Neural Network Based Multicast Ad-hoc on Demand Distance Vector Protocol for Mobile Ad-hoc Networks’, in the Proceedings of the International Conference on Signal and Image Processing (ICSIP-2009) organized by Vidya Vikas Institute of Engineering and Technology, Mysore, Karnataka during 12-14 August.

National:

1. M.Prithiviraj & **G.Kavithaa** 2019, “Review paper on low power VLSI design techniques”, in the Proceedings of the National Conference on Innovation in Electrical Power and Energy Systems NCIEPES’19 Organized by M.Kumarasamy College of Engineering, Karur on 8th March 2019.
2. M.Prithiviraj & **G.Kavithaa** 2019, “Analysis of Vedic Multiplier for CMOS and CPL Logics”, in the Proceedings of the National Conference on Technological Innovations in Medicine and its Applications Organized by Department of biomedical Engineering, Vistas on 5th & 6th March 2019.

3. **Kavitha, G** & Sundararajan, J 2016, 'Hop count based Link establishment for improving QoS using distributed time sequence in MANET', in the Proceedings of the National Conference NCAPEID2016 Organized by Government College of Engineering, Salem on 18th March 2016.
4. **Kavitha, G** & Sundararajan, J 2015, 'Location Aided Routing Based Secured Link Establishment for transferring data and improving the QoS in MANET's', in the Proceedings of the National Conference NCAPEID2015 Organized by Government College of Engineering, Salem on 31st March 2015.

REVIEWER

Acting as reviewer for

- Cluster Computing (Springer),
- The Journal of Supercomputing (Springer),
- Wireless Personal Communications (Springer),
- Design Automation for Embedded Systems (Springer),
- Journal of Ambient Intelligence and Humanized Computing,
- ETRI Journal (Wiley),
- Journal of Electrical Engineering and Technology
- Concurrency and Computation: Practice and Experience (Wiley)
- Measurement and Control

Acted as reviewer for

- International Conference on Frontiers in Smart System Technologies (FSST2019, 3rd – 5th April 2019), Veltech Rangarajan Dr.Sagunthala R & D Institute of Science and Technology, Chennai, Tamilnadu, India
- 2nd International Conference on Recent Developments in Control Automation and Power Engineering (RDCAPE 2017, 26th – 27th October, 2017), Amity University, Uttar Pradesh, Noida, India.
- IEEE International Conference on Innovations in Electronics, Signal Processing and Communication (IESC 2017, 6th – 7th April, 2017), National Institute of Technology, Meghalaya, Shillong, India.
- International Conference on Advances in Robotics, Energy and Network Systems (ICARENS 2017, 9th – 10th March, 2017), Government College of Engineering, Salem, TamilNadu, India.