

BIO DATA



Name : **Dr.R. RAJALAKSHMI**

Designation : Assistant Professor

Department : Electronics and Communication Engineering

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Google Scholar link :

<https://scholar.google.co.in/citations?hl=en&user=Y5eSU6kAAAAJ>

1. Educational Qualification

Degree	Branch / Specialization	Institute/University	Year of Passing
B.E	Electronics and Communication Engineering	RVS College of Engineering and Technology, Dindigul, Anna university	2007
M.Tech	VLSI Design	Kalasalingam Academy of Research and Education, Krishnankoil	2009
Ph.D	Information and Communication Engineering, Low power VLSI	Anna University, Chennai	2020

2. Professional/ Industry Experience

(in chronological order)

S.No	Designation	Institution/Organization	Period	
			From	To
1.	Assistant Professor	Ramco Institute of Technology, Rajapalayam	01.12.2021	Till Date
2.	Assistant Professor	Kalasalingam Institute of Technology, Krishnankoil	29.06.2011	30.09.2019
3.	Assistant Professor	Bannari Amman Institute of Technology, Sathyamangalam	30.06.2010	07.05.2011
4.	Assistant Professor	RVS College of Engineering and Technology, Dindigul	12.06.2009	05.05.2010

3. Research Interest

Low power VLSI, Physical design of VLSI circuits, IOT

Updated as on 10.02.2022

4. Publications

4.1 JOURNAL PUBLICATIONS

1. **Rajalakshmi, R**, Ramesh, SM & Sivakumar, P **2019**, ‘Slew and skew analysis for low power clock tree synthesis using clock distribution networks’, **Sensor Letters**, vol. 17, no. 8, pp. 641-653, DOI: doi.org/10.1166/sl.2019.4123, ISSN: 1546-198X.
2. P.Siva Kumar, **R Rajalakshmi**, M. Tarak Gopi, Pagadala.Kishore, J. Srinivasa Rao **2021**, “RFID based Smart Phone Interfaced Guidance system for Visually challenged Person”, Turkish Online Journal of Qualitative Inquiry, Vol. 12, No 6, pp. 6224-6229.
3. P.Siva Kumar, **R Rajalakshmi**, **2021**, “Vehicle Diagnostic Process by Reverse Engineering”, Turkish Online Journal of Qualitative Inquiry, Vol. 12, No 6, pp. 6216-6223.
4. **Rajalakshmi, R**, Ramesh, SM & Sivakumar, P **2021**, ‘Improved result of TSV and Slew aware 3D gated Clock Tree Synthesis using charge recycling configuration’, **3C Tecnologia**.
5. **Rajalakshmi, R** and S. Sri Kanchana Devi, **2015**, ‘Power minimization of systems using performance Enhancement Guaranteed caches’, **International Journal for Trends in Engineering &Technology**, Vol 5, Issue 2, Pp:189-192.
6. **Rajalakshmi, R** and J. Jayaseeli Pratheepa, **2015**, ‘An efficient Execution of clock Gating Technique for Logic circuits’, **International Journal for Trends in Engineering &Technology**, Vol 5, Issue 1, Pp: 106-110.
7. **Rajalakshmi, R**, G.Aruna, G.Ganga Lawanya, V.Anbu Nivetha, **2017**, ‘Internet Of Things Based Innovative Agriculture Automation Using AGRIBOT’ , **SSRG International Journal of Electronics and communication Engineering**.

4.2 CONFERENCE PUBLICATIONS

1. **R.Rajalakshmi**,M.Vinothini N.Yogalakshmi,M.Yoheswari (2019,) “ARDUINO Based footstep Power Generation”, International conference on Emerging Trends in Engineering and Technology (ICETET’19), at Pandian Saraswathi Yadav Engineering College, Sivagangai
- 2.**Rajalakshmi R**, Benita Priyanka J (2019), “Diagnostic of Vehicle Bus Data and Fault Diagnosis Automation using CAN”, International Conference on Electrical Communication and Computing (ICECC-2019) at Tagore Engineering College, Chennai.
3. **Rajalakshmi R**, Atshayakiruthika M, Muthumari K, Muthupriya R(2019), “IOT Based Smart Farming Using Cloud Computing”, National conference on Recent Trends in Information, Communication and Computing Technology (RTICCT19) at K.S.R. College of Engineering, Tiruchengode.
4. **Rajalakshmi R**, Benita Priyanka J (2019), “Vehicle Diagnostic Process by Reverse Engineering”, International Conference on Innovations in Engineering, Science and Technology (ICIEST-2019) at Kalasalingam Institute of Technology, Krishnankoil
5. **Rajalakshmi R**,G.Nijanthan,K.Mohamed Ashik,M.Ramkumar(2018), “Fire Fighter Minion”, International Conference on Recent Trends in Engineering, Computers, Information Technology and Applications (ICRTECITA-2018) at PSNA College of Engg and Technology, Dindigul.
6. **R.Rajalakshmi**, M.K.Deepika, N.Lavanyadevi(2018), “FPGA-IOT Based Reconfigurable Data Acquisition System for Industrial Sensors” , International Conference on Emerging Trends in Engg and Technology, at SCAD College of Engg and Technology, Tirunelveli
7. **R.Rajalakshmi**, S.Anusuya, S.Madhubala(2017), “Obstacle and Slew Aware 3d Gated Clock Tree Synthesis”, National Conference on Advanced Signal Processing, Communication & Networking (ASPCN’17) at PSNA College of Engg and Technology, Dindigul.
8. **R.Rajalakshmi** and E.Uma Maheswari (2017), “Fast Power and Zero Skew Aware Gated Clock Tree Synthesis”, Nat.Conf on Recent Trends in Electrical,Electronics ,Communication & Computing Technologies, at P.S.R.Rengasamy College Of Engineering For Women,Sivakasi
9. **R.Rajalakshmi**,.G.Aruna,,G.GangaLawanya,V.Anbu Nivetha(2017), “Internet of Things Based Innovative Agriculture Automation using AGRIBOT”, International Conf on Recent Trends in

Engg, Computers, Information Technology And Applications (ICRTECTTA-2017), at PSNA College of Engg and Technology, Dindigul.

10. **R.Rajalakshmi**, S.Rajavigneshwari(2017), “A Survey of 3D Clock Tree Synthesis”, International Conf on Recent Trends in Electrical, Electronics and Communication Engineering (REECE-17), at P.S.R Engineering College, Sivakasi

11. **R.Rajalakshmi**, R.Devi, S.Kanagalakshmi(2016), “ Low power consumption in Clock Tree Synthesis using Clock Gating”, International Conf on Innovations in computer science & Technology (ICICST-2016), at Alagappa University

12. **R.Rajalakshmi**(2016), “Integrated Critical Real time Application for ATM Security System, National Conference NCETSVC’16, at S.Veerassamy Chettiar College of Engg and Technology,Puliangudi

13. **R.Rajalakshmi**, Shri Prasanna, Sheik Mohamed and Sethunarayanaiyappan,(2016), “Clock Skew & Latency Aware Clock Tree Synthesis using Adjustable Buffers”, National Conference NCETSVC’16, at S.Veerassamy Chettiar College of Engg and Technology, Puliangudi

14. J.Jayaseeli pratheepa and **R.Rajalakshmi**(2015), “Reduction of Power consumption in LASIC using STT-RAM technology”, Int.conf.on Int.sys & con (ISCO), pp: 482-487, Jan 2015.

15. S.Srikanchana Devi and **R.Rajalakshmi**(2015), “Energy and Efficient Implementation of matching factored forms for simplifying clock gating logic”, Int.conf.on Int.sys & con(ISCO),pp:575-580,Jan 2015.

16. **Rajalakshmi, R** and S. Sri Kanchana Devi (2015), “An efficient Execution of clock Gating Technique for Logic circuits,” International Conference on Trends in Technology and Engineering (ICTTE’15), at Arjun college of Technology

17. **Rajalakshmi, R** and J. Jayaseeli Pratheepa, (2015), “Power minimization of systems using performance Enhancement Guaranteed caches, International Conference on Trends in Technology and Engineering (ICTTE’15), at Arjun college of Technology

18. **R.Rajalakshmi**, A.Karthik,V.Muthuraja,V.Vjayakumar(2015), “An Efficient parity-based Error Correcting Technique for Combinational Circuits”, International Conf. on Advance Research and Innovation in Engineering, Science, Technology and Management(ICARSM),April 2015,at ARS college of Engineering, Chennai

19. **R.Rajalakshmi**, M.Buvansehwaran, N.Thirumalai kumar and Mohamed Thariq Shaik Swathiq(2014), “Design and Realization of Area and Block based partitioning for parallel flip-chip Power-grid analysis, Nat.Conf. on Innovative Trends in Electronics Communication & Computing Technologies, at April 2014.at P.S.R. Engineering college, Sivakasi

20. M.Meena, S.Mutheeswari, G.Muthumari and **R.Rajalakshmi**(2014),”BIST controller Identifying faults coverage for Embedded memory”, National conference on Emerging Communication Trends, March 2014,at P.S.R. Engineering college, Sivakasi

21. **R.Rajalakshmi** and S.Bhuvaneshwari(2009), “A scan based low power Built In Self-Test scheme for high fault coverage, National Conf on Signal Processing and Communication Technologies, at Kamaraj college of Engg and technology, Virudhunagar

22. **R.Rajalakshmi** and S.Bhuvaneshwari(2009), “A selective trigger scan architecture for low power dissipation and high fault coverage in BIST, DRDO sponsored 4th National conference on Artificial Intelligence based Electrical Machines and Drives (ELCON’09), at National Engineering College, Kovilpatti

4.3 Book/Book chapter publications

Nil

5. Funded Projects

S. No.	Title of the project	Funding Agency	Duration	Amount	Status
1	DST-NIMAT	DST-NSTEDB & EDII	2017-2018	Rs.1,00,000/-	Completed
2	DST-NIMAT	DST-NSTEDB & EDII	2018-2019	Rs.1,00,000/-	Completed
3	DST-NIMAT	DST-NSTEDB & EDII	2019-2020	Rs.1,00,000/-	Completed

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6. Ph.D. guidance

Sl.No	Scholar name	University	Topic	Status
-	-	-	-	-

7. Short term Courses / Seminars /FDP/Workshop/ConferenceAttended:

Sl. No	Title of the event	Organized by	Date	
			From	To
1.	Five Days ATAL FDP on "Smart Grid – Drivers, Challenges and Opportunities"	SASTRA Deemed to be University, Thanjavur	04.01.2022	08.01.2022
2.	Five Days ATAL FDP on "Silicon Photonics: Future of Integrated Circuits"	Visvesvaraya National Institute of Technology (VNIT), Nagpur.	20.12.2021	24.12.2021
3.	One Week International Workshop on "Machine Learning & Its Applications"	Indira Gandhi National Tribal University, Amarkantak	24.01.2022 28.01.2022	28.01.2022
4.	Two Days Workshop on " Write Research Article using LaTeX "	Aditya College of Engineering, Andhra Pradesh	27.12.2021	28.12.2021
5.	Webinar on "IOT:An Innovative multidisciplinary approach and its related startups"	Incubation Unit, GCE, Ramanagaram	17.12.2021	17.12.2021
6.	Webinar on "Applications of Bayes Theorem in Machine Learning and Cyber Security with Case Studies"	Gopalan College of Engg & Management, Bangalore.	22.12.2021	22.12.2021
7.	Webinar on Funding Opportunities	Kalasalingam Academy of Research and Education	21-01-2022	21-01-2022
8.	Quiz "Petroleum Conservation Research Association (PCRA),	Ministry of Petroleum & Natural Gas, Govt of India	28-12-2021	28-12-2021
9.	My Gov 2021 Quiz on Honouring India's Heroes	Ministry of Electronics and Information Technology	28-12-2021	28-12-2021
10.	Awareness Quiz to fight against spread of Coronavirus and completed Omicron Awareness Quiz	Vivekananda College, Tiruvedakam West, Madurai – 625 234, Tamilnadu, India	17-01-2022	17-01-2022
11.	One day Seminar on "Deep Learning and Data Analytic Techniques using Image Processing"	Kalasalingam Institute of Technology	11.07.2018	11.07.2018
12.	National Seminar on "Research & Employment Opportunities in VLSI Testing & Verification (NSRETV'16)"	Kalasalingam Academy of Research and Education, Krishnankoil	02.04.2016	02.04.2016

13.	Workshop on “The Art of Writing Winnable Project Proposal for Funding	Kalasalingam Institute of Technology	07.10.2017	07.10.2017
14.	One day Workshop on “Research Paper Writing	Kalasalingam Institute of Technology	24.06.2017	24.06.2017
15.	Two-day National Workshop on “Outcome Based Education”,	Kamaraj College of Engineering and Technology	27.01.2017	28.01.2017
16.	Hands-on National Workshop on “Research Methodology” (how to do a good Ph.D/write paper/Thesis in LATEX),	Kalasalingam Academy of Research and Education	09.02.2016	10.02.2016
17.	One day Workshop on “MIMO-OFDM Wireless System”,	SRM University, Chennai	28.08.2010	28.08.2010
18.	Participated 2nd International Conference on New Computer Science and Engineering Trends(NCSET2021),	World Advanced Science	30.12.2021	30.12.2021
19.	AICTE sponsored one-week STTP on “Supporting Open Technologies for Deployed Artificial Intelligence”	P.S.R. Engineering College, Sivakasi	07.12.2020	12.12.2020
20.	TEQIP-III sponsored one week FDP on “Design, Modeling, Simulation and Analysis of Advanced Electronic Circuits”	Thiagarajar College of Engineering, Madurai	08.11.2017	14.11.2017
21.	FDP organized by PMO-IEDP (Programme Monitoring Office- Innovation & Entrepreneurship development Programme)	Anna University, Tirunelveli	22.08.2017	24.08.2017
22.	One day Training Program on “Insights of NBA Accreditation-CO/PO attainment Calculation”	Kalasalingam Institute of Technology	20.06.2017	20.06.2017
23.	Anna University Approved Seven Days FDTP on EC6501-Digital Communication	Sethu Institute of Technology, Kariapatti	14.06.2017	21.06.2017
24.	Anna University Approved Seven Days FDTP on EC6703-Embedded & real Time Systems,	Kalasalingam Institute of Technology	15.05.2017	22.05.2017
25.	Two weeks- FDP on “Entrepreneurship” sponsored by NSTEDB (Under DST-NIMAT Project)	Kalasalingam Academy of Research and Education	07.11.2016	19.11.2016
26.	Faculty Empowerment Programme on “Teaching Learning Methodology”,	Voice Training and Research Institute at Kalasalingam Institute of Technology	05.11.2016	05.11.2016
27.	FDTP on “Flipped Class Room	Kalasalingam Institute of Technology	02.11.2016	02.11.2016

28.	One day Faculty Awareness Programme on “Assessment & Accreditation	Kalasalingam Institute of Technology	14.11.2015	14.11.2015
29.	FDP on “Myself Development & Transformation”	Kalvi Training & Research Institute, at Kalasalingam Institute of Technology	22.8.2015	22.8.2015
30.	FDP on “Fine Tuning Presentation	Kalasalingam Institute of Technology	30.06.15	30.06.15
31.	One week FDP on “Digital Signal Processing	Kalasalingam Academy of Research and Education	29.04.15	02.05.15
32.	Two-day Faculty Empowerment programme on “21 st Century Engineering Education	Kalasalingam Institute of Technology	27.04.15	28.04.2015
33.	Two days FDP on “Effective Class room Management	Kalasalingam Institute of Technology	21.03.2013	22.03.2013
34.	IEEE sponsored short term course on “HDL Package	Bannari Amman Institute of Technology	11.10.2010	13.10.2010
35.	FDP on “Instructional Design & Delivery system conducted by NITTR	Bannari Amman Institute of Technology	07.07.2010	13.07.2010

8. Short term Courses / Seminars /FDP/Workshop/Conference organized:

Sl. No	Title of the event	Organized by	Date	
			From	To
1.	National Conference on Advanced Research in VLSI And Microprocessor/Microcontroller (ARIVAM’15) in March 2015,	Kalasalingam Institute of Technology	26.03.2015	26.03.2015
2.	DST -NSTEDB, Govt of India, New Delhi and EDII,Ahmedabad sanctioned Rs.1,00,000/- for conducting five Entrepreneurship Awareness Camps under DST-NIMAT Project for the Academic year 2017-18	Kalasalingam Institute of Technology	26.04.2017	June 2018
3.	DST -NSTEDB, Govt of India, New Delhi and EDII,Ahmedabad sanctioned Rs.1,00,000/- for conducting five Entrepreneurship Awareness Camps under DST-NIMAT Project for the Academic year 2018-19	Kalasalingam Institute of Technology	03.07.2018	June 2019
4.	DST -NSTEDB, Govt of India, New Delhi and EDII,Ahmedabad sanctioned Rs.1,00,000/- for conducting five Entrepreneurship Awareness Camps under DST-NIMAT Project for the Academic year 2019-20	Kalasalingam Institute of Technology	12.08.2019	June 2020

5.	Organized “ANNA UNIVERSITY Approved Two weeks FDTP on Linear Integrated Circuits”	Kalasalingam Institute of Technology	12.11.2018	24.11.2018
6.	Organized “ANNA UNIVERSITY Approved 7 days FDTP on Embedded and Real Time Systems”	Kalasalingam Institute of Technology	15.05.2017	22.05.2017
7.	Organized “ANNA UNIVERSITY Approved 7 Days FDTP on Digital Image Processing	Kalasalingam Institute of Technology	06.06.2016	13.06.2016

9. Online Courses

Sl. No	Course title	University	Date
1.	MATLAB Onramp	Mathworks Training Services	07.12.2021
2.	MATLAB Fundamentals	Mathworks Training Services	14.12.2021
3.	Introduction to the Internet of Things and Embedded Systems	Coursera-University of California, Irvine	18.01.2022
4.	Funding Hacks for Researchers	Researcher Academy Elsevier	13.01.2022
5.	The key to successful Academic collaborations	Researcher Academy Elsevier	27.01.2022
6.	Making Academia-Industry Collaborations Work	Researcher Academy Elsevier	07.02.2022

10. Patents filed/ awarded:01

1. Dr P Sivakumar, Dr Hasmath Farhana Thariq Ahmed, **Dr R Rajalakshmi**, Mr Kannadasan B, Jegajothi, Dr.C.Naresh, "Machine Learning Method & System For Solving a Prediction Problem from larger data source" 202141050927, Dec 3, 2021.

11. Membership in Professional societies:

Life Member ISTE (MISTE).

12. Awards, Recognition & Achievements:

Any others (Board of studies/Governing Council/Staff Selection/Reviewer/other duties)

Award:

- School Third Rank in SSLC Examination, Sri.V.V. Higher Secondary School, Theni.

Recognition:

- University Rank Holder in M. Tech, Kalasalingam Academy of Research and Education.
- Meritorious Contribution to the development of Institution Kalasalingam Institute of Technology.
- Organized Total fifteen Entrepreneurship Awareness Camps (EACs) sponsored by Department of Science & Technology National Science and Technology-Entrepreneurship Development Board (DST-NSTEDB), Govt of India, New Delhi & EDII-Entrepreneurship Development Institute of India, Ahmedabad. -Amount sanctioned Rs.3,00,000/- for fifteen EACs for the Academic years 2017-2018, 2018-2019 and 2019-2020.

Achievements:

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- Guest Lectured delivered a Topic titled “Identification of Opportunities for Entrepreneurs” sponsored by DST-NSTEDB, New Delhi and EDII, Ahmedabad.
- Organized Guest Lecture on “Entrepreneurship” in connection with FORGE organization Coimbatore and Anna University Regional Campus-Tirunelveli for ECE, EEE, CSE, IT & Civil students during September 2017.
- Guest Lecture delivered and special Training given on “VLSI Design & Digital Electronics” to Final year ECE Students in connection with Placement Drive(CADENCE) during December 2017.
- Produced 100% Result in various subjects for Anna University Examinations from 2009-till date.
 - ✓ Digital Signal Processing (Nov/Dec 2009) -100%
 - ✓ VLSi Design techniques (2014-2015) -100%
 - ✓ CMOS Digital VLSI Design (Nov/Dec 2018 & Jan 2019)-100%
 - ✓ Testing of VLSI-100% (Apr/May 2018) -100%
 - ✓ Low power VLSI-100% (Apr/May 2015) -100%
- Industry visited: KELTRON, Kerala and Chips Software Systems, Kerala

Other Responsibilities:

- Acted as Institution **IEDC-Innovation and Entrepreneurship Development Cell** Co-ordinator.
- Acted as Internal Academic Auditor and Internal stock verification incharge for Lab
- Acted as Project co-Coordinator for UG
- Acted as Class Co-Ordinator for UG and PG
- Acted as Exam cell coordinator for the department.
- Guided M.E and B.E projects
- Acted as a External Examiner for university practical examination both UG & PG
- Acted as a valuator for central valuation.
- Acted as a students counselor
- Acted as Timetable In-charge & University Lab Schedule
- Acted as UG project Review Panel member
- Acted as Cell Incharge-Yoga, Scholarship.
- Acted as Tamil Mandram cell member
- Acted as Member in Discipline committee
- NBA Criteria-5 Incharge.