



Dr. M. SIVA KUMAR, M.Tech., Ph. D.

Assistant Professor of ECE (Adhoc),

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Engineering, Pulivendula – 516390, Andhra Pradesh, India

Bio-data

Name	:	Malagonda .Siva Kumar
Official Address	:	Assistant Professor of ECE, Jawaharlal Nehru Technological University Anantapur, Pulivendula – 516390, Andhra Pradesh (India) Mobile :9493249046
Residential Address	:	D. No:12-1-994, Ashok Nagar, Ananthapuramu – 515 001Andhra Pradesh (India)
E-mail	:	sivakumar.ece@jntua.ac.in, m.sivakumar450@gmail.com
Nationality	:	Indian
Religion	:	Hindu

Educational Qualifications:

S. No.	Qualification	University/Institution	Specialization	Year of award
1.	Ph. D	VelTech Rangarajan Dr Sagunthala R&D Institute of Science and Technology	VLSI Design	2026 (Feb)
2.	M.Tech	JNTU Anantapur	VLSI Design	2010 (April)
3.	B.Tech	JNTU Anantapur	Electronics & Communication Engineering	2007 (April)

Teaching Experience: 15+ years of teaching UG & PG Courses

Subjects Taught:

Undergraduate courses	Post graduate courses
❖ Electronic Devices and Circuits ❖ Signals and Systems ❖ Electronic Circuit Analysis ❖ Pulse & Digital Circuits ❖ Digital Logic and Design ❖ Linear IC Applications ❖ Digital Signal Processing ❖ Analog Electronic Circuits ❖ Microprocessors and Microcontrollers ❖ VLSI Design ❖ Basic Electrical and Electronics Engineering	❖ Structural through Digital System design ❖ Mixed Signal Design ❖ Speech Processing ❖ Detection and Estimation Theory ❖ Mobile Networks ❖ Quantum Computing ❖ VLSI Design

- ❖ In addition, the laboratories of UG and PG programmes in the areas of Electronics and Computers have been dealt with.

Editor / Reviewer of Journals

- Editor Board member of Recent Trends in Control and Converter (2023 to date)
- Material Today Proceedings (Elsevier)
- Asian journal of environment & ecology. (Web of Science)
- Journal of Energy Research and Reviews (Web of Science)
- Journal of the Institution of Engineers (India) Series B. (Web of Science)
- International Journal of Informatics and Communication Technology (Scopus)
- International Journal of Electrical and Computer Engineering (Scopus)

Number of Research publications:

International Journals	:	25
International Conferences	:	06

Research Profile

- Web of Science ID: JYP-6555-2024,
- ORCID ID: <https://orcid.org/0000-0002-8056-760X>
- Scopus ID: 60250640100
- Google Scholar ID: <https://scholar.google.com/citations?user=FNrCAVUAAAAJ&hl=en>

List of publications:

International Journals:

Scopus List:

1. **Malagonda Siva Kumar**, Vempalle Rafi, Murkur Rajesh "Advancing semiconductor integration: 3D ICs and Perylene-N as superior liner material for minimizing TSV clamour coupling " International Journal of Informatics and Communication Technology (IJ-ICT) 14 N0 2(2025) pp. 476~483 ISSN: 2252-8776DOI: 10.11591/ijict.v14i2.pp605-613
2. **Malagonda Siva Kumar**, Vempalle Rafi, Murkur Rajesh ." DESIGN AND ANALYSIS OF MULTILEVEL INVERTER FOR ELECTRIC VEHICLE BY USING THE ANN." ARPJ Journal of Engineering and Applied Sciences, 20 N0 7(2025) pp. 386 – 393,ISSN: 24095656,DOI: 10.59018/042551
3. **Malagonda Siva Kumar**, Vempalle Rafi, Murkur Rajesh ." EFFECT OF PID CONTROLLER ON ELECTRIC VEHICLE CHARGING BY SYMMETRIC INTERLEAVING OF MODULAR CONVERTERS." ARPJ Journal of Engineering and Applied Sciences, 20 N0 7(2025) pp.955 – 967, ISSN: 1819-6608 ,DOI: 10.59018/042551
4. **M. Siva Kumar**, J. Mohanraj, N. Vinodh Kumar, and M. Valliammai. "An extensive survey on future direction for the reduction of noise coupling problem in TSV based 3-dimensional IC integration." Materials Today: Proceedings 46 (2021): 3502-3511. DOI: 10.1016/j.matpr.2020.11.975.
5. **Malagonda Siva Kumar** and Jayavelu Mohanraj."Modeling and Performance Analysis of TSV using Nanomaterial-Based Dielectric and Core for High Frequency Applications." International Journal of Intelligent Systems and Applications in Engineering 11, no. 3 (2023): 435-441.<https://ijisae.org/index.php/IJISAE/article/view/3193>
6. **Malagonda Siva Kumar** and Jayavelu Mohanraj. "Noise coupling reduction using temperature enhanced device for future integrated circuit integration applications." Int J Reconfigurable & Embedded Syst 13, no. 2 (2024): 307-314. DOI: 10.11591/ijres.v13.i2.pp307-314.
7. **Malagonda Siva Kumar** and Jayavelu Mohanraj. " Electrical signal interference minimization using appropriate core material for 3D integrate circuit at high frequency applications International Journal of

Electrical and Computer Engineering (IJECE) 14, no. 3 (2024): 2500-2507. DOI: 10.11591/ijece.v14i3.pp2500-2507

8. **Malagonda Siva Kumar** and Jayavelu Mohanraj." Enhancement of Liner Materials Based on Nanomaterials to Promote Sustainability in Noise Intercourse." International Journal of Informatics and Communication Technology (IJ-ICT) 13 N0 3(2024) pp. 476~483 ISSN: 2252-8776

UGC Listed:

9. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Assessing the Performance of Machine Learning Techniques in Achieving Keyword Coverage through Semantic Data Analysis** ” Accepted for publication in Recent Trends in Analog Design and Digital Devices, Volume 09 Issue 01 Jan-Apr, 2026, HBRP Publication Page 1-14 , e-ISSN: **3048-7560**, <https://doi.org/10.5281/zenodo.17627281>
10. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Design and Performance Enhancement of Microstrip Patch Antenna Using Metamaterial Structures**” Accepted for publication in Recent Trends in Analog Design and Digital Devices, Volume 09 Issue 01 Jan-Apr, 2026, HBRP Publication Page 1-14 , e-ISSN: **3048-7560**, <https://doi.org/10.5281/zenodo.17627802>
11. **M.Siva Kumar**, T. C. Sanjeeva Rayudu “**Comparative Analysis of Advanced Shielding Techniques for Crosstalk Mitigation in Multi-walled Carbon Nanotube TSVs**” Accepted for publication in International Journal of Embedded System and VLSI Design, Vol. 1, Issue 1 (January – June, 2025) pp: (12-21), e-ISSN: 2581-8449, MAT Publications, www.matjournals.com.
12. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Advancing 3D IC Integration Using BCB as a Dielectric Material**” Accepted for publication in Recent Trends in Control and Converter, Volume 8 Issue 1 Jan-Apr, 2026, HBRP Publication Page 28-35 ,e-ISSN: **3048-7560**, <https://doi.org/10.5281/zenodo.14944242>
13. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**An Efficient VLSI Implementation of the SMS4 Cipher Using a Twisted BDD S-Box Architecture**” Accepted for publication in Recent Trends in Control and Converter, Volume 8 Issue 1 Jan-Apr, 2026, HBRP Publication Page 28-35,e-ISSN: **3048-7560**, <https://doi.org/10.5281/zenodo.15228942>
14. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Novel Approach to Suppress Crosstalk in Through-Silicon Vias**” Accepted for publication in Recent Trends in Control and Converter, Volume 8 Issue 1 Jan-Apr, 2026, HBRP Publication Page 28-35 ,e-ISSN: **3048-7560**, <https://doi.org/10.5281/zenodo.15228942>
15. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Shift Register with Low Power and Area Efficient Pulsed Latches** ” Accepted for publication in Research and Review: VLSI Design, Tools and It's Application, Volume 1 Issue 1, HBRP Publication Page 17-26,June 2025, ISSN No: 2582-4384: DOI: <https://doi.org/10.5281/zenodo.15129838>
16. **M.Siva Kumar**, TC.Sanjeeva Rayudu “**Multipurpose Surveillance Snail Robot Based on IoT** ” Accepted for publication in Research and Applications: Embedded System, Volume 7 Issue 1, , HBRP Publication Page 1-7, January 2023, ISSN No: 2582-4384: DOI: <https://doi.org/10.5281/zenodo.10460899>
17. **M.Siva Kumar**, S.Neelima , P.Dilleep, T.Avinash, G.Vandana “**Improved Heat dissipation in Three-Dimensional Integrated Circuits**” Accepted for publication in Journal of Optoelectronics and Communication, Volume 6 Issue 1, HBRP Publication, Page 28-35, March 2024, ISSN No: 2582-4384: DOI: <https://doi.org/10.5281/zenodo.10851498>
18. **M.Siva Kumar**, T. C. Sanjeeva Rayudu “**A HW/SW Co-Verification Method for Ask Using FPGA Test**” Accepted for publication in Journal of VLSI Design and Signal Processing, Volume-9, Issue-3 (September-December, 2023), e-ISSN: 2581-8449, MAT Publications, Page 18-28, March 2024, ISSN No: 2582-4384: www.matjournals.com.
19. **M.Siva Kumar**, T.C.Sanjeeva Rayudu “**A Novel Approach for Breast Tumour Detection and**

- Segmentation from MRI Images Using Image Processing Techniques”** Accepted for publication in Research and Applications: Embedded System, Volume 6 Issue 2 , HBRP Publication Page 22-29, June 2023, ISSN No: 2582-4384: [DOI: https://doi.org/10.5281/zenodo.8020473](https://doi.org/10.5281/zenodo.8020473)
20. **M.Siva Kumar, T.C.Sanjeeva Rayudu “SYSTEM FOR PREVENTING ACCIDENTS IN DEADLY AND HILLY AREAS”** Accepted for publication in International Journal of Novel Research and Development, Volume 8, Issue 7 July 2023, ISSN: 2456-4184 | IJNRD.ORG, IJNRD2307063
 21. **M.Siva Kumar, TC.Sanjeeva Rayudu “Spectrum Sensing using Cumulative Sum Algorithm”** Accepted for publication in **Mukt Shabd Journal ,Volume 9,Issue 7(August-2022),** ISSN No:2347 3150 (https://m.box.com/shared_item/https%3A%2F%2Fapp.box.com%2Fs%2Fdk0jyfxoeu2e8yfl86nwa6ldos9lfek8)
 22. **M.Siva Kumar, P.Nagamallaiah “A Novel Approach for Edge Detection of Angiogram Images Using Classical Image Processing Technique”** , Accepted for publication in International Journal of Electrical Electronics & Computer Science Engineering , Volume 5, Issue 1 (February, 2018) | pp-57-60, ISSN: 2278 – 909X .
 23. **M.Siva Kumar, P.Nagamallaiah “Performance Evaluation Of GIG Codes for DS-CDMA Communication Over Rayligh Flat Fading Channel ”.**Accepted for publication in International Journal of Advanced Research in ECE (IJARECE) ,volume(6), Issue(5), May 2017,pages: 434-439, ISSN:2278-909X.
 24. **M.Siva Kumar, P.Nagamallaiah, “ Design And Implementation Of A PCI Express Physical Layer Transmit Protocol ”.** Accepted for publication in International Journal of Engineering Research Online (IJOER) ,volume(4), Issue(3), May 2016,pages:140-145, ISSN:2321-7758.
 25. **M.Siva Kumar, P.V.Kusuma “Performance Evaluation Of Maximal Sequences In Presence Of Broadband Jammer For Pass BFSK System Over AWGN Channel”** Accepted for publication in International Journal of Advanced Research in ECE (IJARECE) ,volume(5), Issue(5), May 2016,pages:1420-1425, ISSN:2278-909X.

International Conferences

1. **M.Siva Kumar “Satellite Image Segmentation”** International Conference on Recent Trends in Engineering and Technology(ICRTET-2022) Organized by KSRM College of Engineering,Kadapa held on 29th December 2022
2. **M. Siva Kumar, J. Mohanraj “An extensive survey on future direction for the reduction of noise coupling problem in TSV based 3-Dimensional IC Integration ”** Materials Today Proceedings, ELSEVIER, 3rd International Conference on Materials, Manufacturing and Mechanical Engineering for Sustainable Developments - (ICMSD2020) organized by Sri Sai Ram Institute of Technology, Sai Leo Nagar, West Tambaram, Chennai,Tamil Nadu, 19th 20th November 2020, Volume 46,Part 9,2021,Pages 3502 3511.<https://doi.org/10.1016/j.matpr.2020.11.975>
3. **M.Siva Kumar, T.C.Sanjeeva Rayudu, “Design of Dual band L-slot Microstrip patch Antenna for wireless communication,”** Proceedings of International Conference on Recent Challenges in Science,Engineering and Technology(ICRCSET), organized by Chalapathi Institute of Technology , Guntur,, Andhrapradesh during 28th-29th February 2020, ISBN :978-93-89107-81-4
4. **M.Siva Kumar, P.Naga Mallaiah, “Design and Implementation of single stage fully Differential Class AB Amplifier with Adaptive Biasing,”** Proceedings of Advanced in Engineering ,Technology and Sciences (NCAETS 2019), organized by Sphoorthy Engineering College , Nadergal (v), Hyderabad, Telangana during 4th April 2019,Volume 9,Issue 4 -2019, pp. 459-462 (ISSN: 2394 -2886).
5. **M.Siva Kumar, P.Naga Mallaiah, “A Mobile Based Health Care Application For Heart Rate And Body Temperature Monitoring System Using Arduino UNO ”** ,Proceedings of National Conference on Emerging

Trends in Information, Management and Engineering Sciences (NC'e-TIMES#1.0-2018) , Organized by Annamacharya Institute of Science and Technology, Rajampet ,kadapa(dist) during 14 th and 15 th March 2018, pp. 101 – 104 (ISSN: 2395- 1303)

6. **M.Siva Kumar**, Chandra Mohan Reddy Sivappagari,, “ **Reduction Of PAPR In LTE Systems Using Modified PTS Method** ” ,Proceedings of International Conference on advanced computing and communication system (ICACCS 2017), Organized by Sri Eshwar college of engineering , Coimbatore during 6th to 7th January 2017, pp. 432-436.(ISBN-978-1-5090-4558-7)

Workshops attended:

Online Mode :

1. 30 Days master class on “**Embedded Systems**” held on 27.03.2023 to 27.04.2023 organized by the Pantech e Learning pvt ltd.Chennai.
2. One week faculty skill development program on “**Research Methodology,Design and Innovation**” held from 16.12.2022 to 21.12.2022 organized by the department of Electronics and Instrumentation Engineering,CVR college of Engineering,Ibrahimpattam,R.R Dist,Telangana.
3. One Week STTP on “**Teaching and learning pedagogy**” (online mode) from 18 May, 2020 to 22 May, 2020 organized by REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.
4. One Week International Skill Enhancement Programme-2020 webinar series on “**Programming and simulation software** ” held during June 22 nd to June 27 th ,2020 organized by Dayananda Sagar University, Bangalore in association with IEEE Bangalore Section.
5. One week FDP on “**Recent Trends in Electronics Industry(RTEI-2020)**” from 18.05.2020 to 23.05.2020 organized by ECE Department, Annamacharya Institute of Technology and Sciences, Rajampet.
6. One week online FDP on “**Recent IT Technologies, Writing Papers and Funding Proposals**”, organized by Dept. of Computer Science & Information Technology at RIT, under RIT-Center for Teaching and Learning in association with CSI and IEEE Bombay Section from 20 June to 24 June, 2020.
7. One Week STTP on “**Advanced Research Methodology**” from 11May, 2020 to 15 May, 2020 organized by REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.
8. One week Online Faculty Development Program on “**Opportunities & Challenges in Electronics & Allied Industries in India post COVID-19**” from 25th to 30th May 2020 organized by Department of Electronics Engineering in association with Institution’s Innovation Council (IIC) of Vivekanand Education Society's Institute of Technology.
9. One Week Faculty Development Program on “ **Online Teaching Etiquette and Best Practices**” from 10-05-2020 to 15-05-2020, Organized by Santhiram Engineering College, Nandyal in collaboration with Talentio Solutions India Pvt. Ltd., Hyderabad.
10. One week National Faculty Development Program and Online Training on ‘**Moodle Learning Management System**’ organized by KJ. Somaiya Institute of Engineering and Information Technology in association with Spoken Tutorial Project, IIT Bombay from 26th -30th May 2020.
11. One Week Online Faculty Development Program on “**Cyber Security**” organized by the Department of Computer Science and Engineering, in association with Supraja Technologies held from June 19th to 24th 2020.

12. One week Awareness Program on “**MATLAB**” organized by Department of E&TC Engineering, and ISTE Student Chapter, S.S.B.T.'s, College of Engineering & Technology, Bambhori, Jalgaon, (M. S.) India during 12th –16th June 2020 .
13. Five day Faculty Development Program on “**Recent Trends in Image Processing**” organized by Gates Institute of science and technology held during 15th -19th June 2020.
14. Five day National level online FDP on “**Moodle learning management system**” organized by CSE department , Ananatha Lakshimi Institute of Science and Technology in association with Spoken Tutorial IIT Mumbai during 8th to 12th June 2020.
15. Five Days Online Faculty Development Programme on “**Recent Communication Tools And its Application**” Organized by Department of Electronics and Communication Engineering from 19th to 23rd May, 2020.
16. Five day online short term training program on “Internet of things and its applications in Industry” jointly organized by department of Instrumentation Engineering, Ramrao Adik Institute of technology ,Navi Mumbai & B.R Automation Pvt.Ltd from June 8 -12 ,2020
17. Three Day National Level Online FDP on “**Research Topics in VLSI and Industry Trends**” organized by the Department of Electronics and Communication Engineering, GMR Institute of Technology, Rajam, AP, during 29th to 31st May 2020.
18. 3-Day National Level Webinar Series on "**Research Techniques & Challenges**" which was jointly organized by Shivajirao S. Jondhle College of Engineering & Technology and Shivajirao S. Jondhle Polytechnic , Asangaon. from 26th -28th May 2020.

Offline Mode:

1. Three Day Training Programme on “**Machine Learning and Deep Learning using MATLAB** ” during 11th March to 13th March 2019 at JNTU Anantapuram, organized by CoreEL technologies private limited Bangalore.
2. One Week FDP on “**Aspiration development program for self & Professional Empowerment** ” during 27th November to 1st December 2018 at JNTU Anantapuram organized by JNTU Anantapuram.
3. Ten days FDP on “**Embedded Real Time Systems**” during 01st to 10th February 2017 at JNTU Anantapuram organized by NIT Warangal.
4. Four day Professional development program on “ **Internet of things (IoT) for digital world** ” at Tirupathi on 19th and 22nd December 2016. Organized by ESCI.
5. Faculty Development Program (FDP) on “**VLSI Design flow using Xilinx Vivado targeting Xilinx 7 series FPGA and Zynq SOC architecture** ” at CoreEL Technologies During 6th to 10th September 2016 , Bangalore .
6. Two day National level hands- on training program on “**VLSI design Advancements using Xilinx tools** ” at JNTUACE , Pulivendula on 26th and 27th August 2016.Sponsored by TEQIP II.
7. Two day National level hands- on training program on “**MSP 430 and TIVA Microcontrollers**” under Texas instruments university program from 23rd to 24th July 2016 at JNTUACE, Pulivendula

8. Faculty Development Program (FDP) on “**Patent Drafting and Filling**” at JNTUACE ,Pulivendula on 23rd April 2016.Sponsored by TEQIP II Organized by ESCI
9. Two day National level FDP on “**Entrepreneurship Development Initiative in India**” at JNTUACE, Pulivendula during 16th to 17th March 2016.Sponsored by ED II-16 in collaboration with IEEE Hyderabad.
10. Faculty Development Program (FDP) on “**Advanced Digital signal Processing**” at National Institute of Technology ,Warangal, during 22nd to 26th Feb 2016.Sponsored by MICT, Govt. of India Organized by Electronics & ICT Academy, Department of ECE.
11. Faculty Development Program (FDP) on “**Entrepreneurship Development**” at AU college of Engineering, Andhra University ,Visakhapatnam From 16th to 18th December 2016.Sponsored by TEQIP II Organized by ESCI.
12. A Hands-on workshop on “**Linear Integrated Circuits: A Systems Approach**” Pulivendula during 25th & 26th September 2015.Organized by JNTUACE, Pulivendula, Sponsored by Texas Instruments-Ti University.
13. “**Instructional Excellence in Intelligent Systems**” Under the Intel College Excellence Program, conducted in JNTUACE, Pulivendula during 22nd to 24th April 2, 2014.
14. A Two day National workshop on “ **Digital Image Processing and Pattern recognition using MATLAB (DIP-PRM 2014)**” Under the Intel College Excellence Program, conducted in JNTUACE, Pulivendula during 24th & 25th January 2014. Sponsored by TEQIP I.
15. A Two – week ISTE workshop on “**Analog Electronics**” Conducted by IIT Kharagpur From 4th to 14th June 2013 Foreign Visits:

Declaration:

I hereby declare that the information furnished above is true to the best of my knowledge

Dr. M. SIVA KUMAR

Date: 12-03-2026

Pulivendula.