Sri Sai Ram Engineering College
Department of Electronics and Communication Engineering

Name: **Dr.Balaji.N**	
Designation:	Assistant Professor
Qualification:	B.E.,M.Tech., M.Sc(Yoga)., Ph.D
Area of Specialization:	VLSI Design
Experience:	Teaching- 16 Years & 6 Months
	Industry: Nil
Number of Workshops/ Conferences/ FDP Attended:	48

Publication:	Journal:
	     National:Nil
	     International:09

	Conference:
	     National: Nil
	     International:18

Research Guidance:	Guided 25 UG Projects till date
General:	Ministry of AYUSH certified Yoga Instructor.
Staff Achievement	NIL

Teaching Experience

S. No	Name of the Institution	Designation	Department	Period of Experience
1.	Veltech Multi Tech SRS Engg College, Chennai.	Assistant Professor	Electronics and Communication Engg	1 Yrs & 11 Months
2.	R.M.K Engineering College, Chennai	Assistant Professor	Electronics and Instrumentation	5 Years
3.	Sri Sairam Engineering College, West Tambaram, Chennai	Associate Professor/Silver	Instrumentation and Control Engineering	9 years &7 months (Till date)

Industry Training Attended:

Six Days Faculty Industrial Training Program at PULSAR from 21/2/2022 to 26/2/2022.

FDP Attended:

1. Three day Online Faculty Development Program on "Embedded System Design Methodologies using Intel FPGA" organized by the Department of Electronics and Communication Engineering, Velammal College of Engineering and Technology in association with Intel Technology India Pvt ltd from 15.12.2021 to 17.12.2021.

2. Innovation Ambassador -Advanced Training conducted by MoE's Innovation Cell & AICTE from 30.6.21 to 30.7.21

3. AICTE Organized 5 Days online FDP on Inculcating Universal Human Values in Technical Education from 12.7.2021 to 16.7.2021.

4. ATAL Online FDP on "Introduction to Software Robots and Automation" Bharathiar Cenetenary Memorial Government Women's Polytechnic College from 7.6.21 to 11.6.21.

5. AICTE Sponsored Two weeks FDP on Machine Learning Techniques for Imaging and Healthcare with PYTHON by Sri Sairam Engineering College from 28.01.21 to 10.02.22.

6. STTP on Recent Trends in Computational Intelligence for Healthcare Monitoring systems conducted by Bannari Amman Institute of Technology, Sathyamangalam on 14th to 19th December 2020.

7. ATAL FDP on Augmented Reality (AR)/ Virtual Reality (VR) Conducted by Guru Nanak Dev Engineering College, Ludhiana on 23rd to 27th November 2020.

8. TEQIP-III Sponsored Multidisciplinary Research Innovation in Engineering, Science and Technology for Sustainable Development conducted by BIPIN TRIPATHI KUMAON INSTITUTE of TECHNOLOGY DWARAHAT ALMORA on 26th October to 7th November 2020.

9. ATAL FDP on Internet of Things Conducted by Kongu Engineering College, Erode, on 21st to 25th Dec 2020.

10. Attended five days FDP on Process Modelling & Control at Sairam Engineering College

11. Attended two days FDP on Outcome Based Education Conducted by IQAC of Sri Sairam Engineering College.

12. Attended FDP on Methodologies & practices for profitable Research through patents & IPR at Sairam Engineering College.

13. Attended ICT Academy sponsored FDP on Presentation Skills Level1 at Dhaanish Ahmed college of Engineering.

14. Attended Faculty development program on Teaching Excellence in Engineering & Management Curriculum at Sairam Engineering College.

15. Attended Faculty development program on Linear Integrated Circuits and its Applications at KCG College of Technology.

16. Attended Faculty development program on Discrete Time Signal Processing at Bannari Amman Institute of technology.

17. Attended Faculty development program on VLSI Design Conducted by Anna university at SSN College of Engineering.

18. Attended Faculty development program on Digital System Design Conducted by

Anna university at Vellamal Engineering College

19. Participated in 21st international conference on VLSI design.

Workshop Attended:

1. 7-Days Hands on Training on "Advanced Industrial Automation" Conducted by Sri Sairam Engineering College from 25/10/21 to 1/11/21.

2. International workshop on Natural Insprired Computing applied to engineering conducted by Sri Sairam Engineering College from 23/7/2021 to 26/7/2021.

3. Online Workshop on esim Conducted by VIT Chennai on 14th to 16th May 2020.

4. Attended 3 days Hands on Workshop on Robotics System Design in collaboration with M/s Digital Shark Technology Pvt. Ltd, Bangalore at Sairam Engineering College.

5. Attended 3 days Workshop on "Rapid Prototyping- IoT and Embeded System design" in collaboration with M/s Digital Shark Technology Pvt. Ltd, Bangaluru at Sairam Engineering College.

6. Attended 5 days workshop on DCS and Field Instruments at Sairam Engineering College.

7. Attended Workshop on Analog Mixed Signal and Digital Design Using CADENCE TOOLS.

8. **Coordinator** for Workshop "New outcome based Accredation" conducted by National Board of Accredation, Newdelhi.

9. Attended three days training on **Building Management System** conducted by Johnson Controls, Pune.

Conference Attended:

1. **N.Balaji,** "Implementation Of Conventional Control Algorithm For Boilers Using Raspberry Pi", 6th International Conference on Chip, Circuitry, Current, Coding, and Combustion & Composites – 2018 at Sri Sairam college of Engineering, Bengaluru, Karnataka, 28th and 29th Nov 2018.

2. **N.Balaji, "**Voice-O-Mata Using IoT", First International Conference on Circuits, Signals, Systems and Securities ICCSSS 2020- at Bannari Amman Institute of Technology, Coimbatore on 11th and 12th December 2020.

3. **N.Balaji,** "NO WAY,BUT TO MAKE IT SMART" ENERGY INDUSTRY: INTEGRATING ARTIFICIAL INTELLIGENCE" , Second International Conference on Emerging Trends in Materials, Computing and Communication Technologies 'ICETMCCT 2021', ANNAI VAILANKANNI COLLEGE OF ENGINEERING, AVK Nagar, Pottalkulam during December 9, 2021 and December 10, 2021.

4. **N.Balaji,** Machine Learning based Estimation of Room Occupancy Using Non-Intrusive Sensors, 2022 International Conference on Communication, Computing and Internet of Things, IC3IoT 2022 - Proceedings, 2022.

5. **N.Balaji,** Cloud-O-Col for PLCS Using IoT, Proceedings of the 2021 4th International Conference on Computing and Communications Technologies, ICCCT 2021, 2021, pp. 309–312.

6. **N.Balaji,** Combined Economic-Emission Dispatch of External Optimization Integrating Renewable Energy Resources Stochastic Wind and Solar

Seminar Attended:
1. Attended Technical Lecture on "Fire & Gas and Safety Systems" at Annamalai University Alumni Club. MHRD IIC online session Entrepreneurship Development: Entrepreneurship, Business Idea, and Business Model Canvas on 5th May 2020.

2. MHRD IIC online session Design Thinking and Innovation: The Double Diamond Process: Entrepreneurship, Business Idea, and Business Model Canvas on 6th May 2020.

3. MHRD IIC online session IPR and Technology Transfer: Intellectual Property (IP) Management at Early Stage of Innovation and Start-ups on 7th May 2020.

4. MHRD IIC online session Entrepreneurship Development: Understanding Angel and Venture Capital Funding on 8th May 2020.

5. MHRD IIC online session Legal and Ethical Steps - Productive Entrepreneurship and Startup on 12th May 2020.

6. MHRD IIC online session Entrepreneurship Development: Innovating Self- Screen and Identify right opportunities on 13th May 2020.

7. MHRD IIC online session Entrepreneurship Development: Understanding Role and Application of Marketing Research at Idea to Start-Up Stage - Foundation Level on 14th May 2020.

8. MHRD IIC online session Entrepreneurship Development: Innovation Risk Diagnostic: Product Innovation Rubric (PIR) on 15th May 2020.

9. MHRD IIC online session Entrepreneurship Development: Use of Market Data and Application of Marketing Research Tools and Methodology - Advance Level on 20th May 2020.

10. MHRD IIC online session Entrepreneurship Development: Frugal Innovation and Social Entrepreneurship on 21st May 2020.

11. MHRD IIC online session Entrepreneurship Development: Interaction with Student Innovators and Entrepreneurs Emerged from Smart India Hackathon (SIH) on 22nd May 2020.

NPTEL Online Certifications:
➢ NPTEL FDP certification on Enhancing soft skills and personality.
➢ NPTEL certification on Emotional Intelligence.
➢ NPTEL certification Development Research Methods
➢ NPTEL certification Yoga And Positive Psychology For Managing Career And Life
➢ NPTEL certification Digital Electronic Circuits

- ➢ NPTEL certification Learning Analytics Tools
- ➢ NPTEL certification Roadmap for patent creation
- ➢ NPTEL certification Innovation by Design
- ➢ NPTEL certification Natural Language Processing
- ➢ NPTEL certification Data Analytics with Python

List of National and International Journal publication:

S.NO	TITLE OF THE PAPER	JOURNAL DETAILS	PUBLICATION DATE	VOL/EDITION DETAILS
1.	IoT based patient Monitoring system using raspberry Pi3 and LabVIEW	Pakistan Journal of Biotechnology ISSN:1812-1837	October-2017,	Vol-14, issue-3
2.	Aircraft Tracking Using Automatic Dependence Surveillance – Broadcast	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	November 2017	Volume 5 Issue XI.
3	FPGA implementation of smart water quality monitoring system	International Journal of Innovative Technology and Exploring Engineering	September 2019.	Volume-8, Issue 11
4	Process automation of demineralization plant using Delta PLC, wonderware intouch and Delta HMI	International Journal of Recent Technology and Engineering	September 2019	Volume-8, Issue 3
5	Voice-O-Mata Using IOT	IOP Conference Series: Materials Science and Engineering	March 2021	Volume 1084
6	IoT enabled temperature sensing system of molten metal in welding	Materials today: Proceedings	December 2020	-
7	Cloud-O-Col for PLCS Using IoT	4th International Conference on Computing and Communications Technologies (ICCCT)	16-17 Dec. 2021.	-
8	Machine Learning based Estimation of Room Occupancy using Non-intrusive Sensors	International Conference on Communication, Computing and IoT	10th to 11th March 2022.	-
9	Combined	INTEGRATING ARTIFICIAL	December 9, 2021	-

Economic-Emission Dispatch of External Optimization Integrating Renewable Energy Resources Stochastic Wind and Solar	INTELLIGENCE in the Second International Conference on Emerging Trends in Materials, Computing and Communication Technologies 'ICETMCCT 2021'	and December 10, 2021.	

Patent Details

Title of the Invention	Application Number	Date of Filing	Publication Date
Hybrid Tricycle With To And Fro Action of Steering Mechanism	202041019166A	05/05/2020	05/06/2020
Optimizing Coal Loading for Efficient Rail Transport Addressing Overloading and Underloading Challen	202441065299A	29/08/2024	13/09/2024
The Role of advanced AI and Robotic Technology in Cardiovascular and Orthopaedics Surgery which is Revolutionizing Health care/Medical science - a deep analysis.	202441045114A	11/06/2024	21/06/2024
Intergrated Modern Agriculture System	202541036622A	16/04/2025	09/05/2025