

Kings College of Engineering

Department of Electronics and Communication Engineering

Name : Mr. Balakrishnan.R	
Designation:	Assistant Professor
Qualification:	B.E., M.B.A., M.E., (PhD)
Area of Specialization:	Communication Systems.
Experience:	Teaching UG & PG: 12 yrs.
	Industry: 14.7 Yrs
No of Industrial visit Arranged	5
No. of workshop / Conferences / FDP attended :	120
Publication :	Journal International: - 02
	Conference National: 7 International: 9
Membership :	ISTE Life Member-LM100199) IEEE Member
Languages Known:	Tamil, English, Telugu, Kannada, Hindi.

Achievements :	1. Received project grand Rs 7500/ from TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY. Chennai.(2023-24.) 2. School First Rank in HSC. Govt. Higher Sec.School, MuthuramalingaPuram- Aruppukkottai -Taluk , Virudhunagar – Dist. 3. Mathematics 100marks out of 100 in SSLC.
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Journals publications:

1. Balakrishnan R , Swetha SM, “ Algorithms and techniques for Artificial Intelligence Based Border Security System” , IJRPR, ISSN 2582-7421, Volume-4, Issue-4, pp 4753-4757, April 2023.
2. Balakrishnan.R, Sowmiya.T, Tamilaruvi.G, Vinitha.M,” Data gathering and low power consumption in sensor modes with wireless energy transfer” IJREST,March 2016,Volume 3,Issue3.

Conference publications:

International

1. Balakrishnan R, “ Adaptive Neural network for channel Estimation and signal detection in MIMO- OFDM- FSO System” International conference on Sustainable Technologies in Engineering and Science (ICSTES’25)” Kings college of Engineering, Punalkulam, Pudhukottai Dist on 8 and 9.05.2025.
2. Balakrishnan R, “Underwater Wireless Communication Network for Fisherman Safety using Microcontroller”, International conference on Recent Trends in Engineering & Science (ICRTES-2024), Kings college of Engineering, Punalkulam, Pudhukottai Dist on 2 and 3.05.2024.
3. Balakrishnan R , Swetha SM, “ AI based border security system using IoT” International conference on Computing, Communication and control(IC4), Kings college of Engineering, Punalkulam, Pudhukottai Dist. On 26.04.2023.
4. Balakrishnan R, Ananthavalli K, Nivethiya T, Santhiya S, Sheela T,”BER performance of OFDM with differential index modulation for Visible Light Communication” International conference on Intellectual Research in science, Engineering and Management (ICIRSEM 2022) , St.Joseph”s College of Engineering and Technology, Thanjavur, on 28.05.2022.
5. Balakrishnan R,etl “Advanced Fire Detection System in Indian railways” ICLTSET’21, Karpagam Institute of Technology, Coimbatore from 26.03.2021 To 27.03.2021.

6. Balakrishnan R, etl " Advanced design of solar powered agricultural robot" IC3IoT-2020- Sri SAI RAM Engineering College, Chennai from 20.02.2020 to 22.02.2020.
7. Balakrishnan R, etl "Detection and classification of brain tumor using sum and k-NN based clustering" International -JCCRESJ-2017, Jayaram college of Engineering and Technology, Trichy on 17.03.2017.
8. Balakrishnan.R , B. Vidhya,etl,"Advanced floating – point ALU embedded system in FPGA. International conference on Research Vogues in information & communication Technologies, vol.1,No.1. February – 2014.
9. Balakrishnan R, etl "Multi Domain Graph –based Detection and Soft Channel Estimation of MIMO – OFDM for Multi-selective Channels." ICEEET'13)- Muthayammal Engineering College, Rasipuram, Tamilnadu on 25.04.2013.

National

10. Balakrishnan R, etl ,"Communication during national disaster with the help of black box" – NCACCPS 2K19- St.Joseph's college of engineering and technology, Thanjavur on 09.03.2019.
11. Balakrishnan R, etl ,"Analysis of 4 X 4 MIMO- Antenna Systems using angular diversity", St.Joseph's college of engineering and technology, Thanjavur on 23.03.2018.
12. Balakrishnan R, etl ,"Systematic Approaches to inculcate professional competencies and holistic development among engineering students"- 46th ISTE Annual National Convention & National Conference 2017- Gulzar Group of Institutes, Ludhiana,Punjab state from 10.02.2017 to 12.02.2017.
13. Balakrishnan R, etl ,"Bit Error Rate Comparison for various modulation in four domain for MIMO OFDM Using MD-GSIR" - NCSPVD' 16 - Kings College of Engineering, Punalkulam on 28.12.2016.
14. Balakrishnan R, etl ,"Advanced Floating Point ALU Embedded system in FPGA"-SURYA RISE'14 , SURYA Engineering College, Erode on 11.03.2014.
15. Balakrishnan R, etl ,"3D Factor Graph-based Channel Estimation and Data Detection of MIMO-OFDM for Multi-selective Channels"-NCE'13 - Anna University Tirunelveli, Tamilnadu on 12.04.2013.
16. Balakrishnan R, etl ,"Soft Channel Estimation and Data Detection for MIMO – OFDM using Multi dimensional Graph based Soft Iterative Receiver",NCMOC'13- AlagappaChettiar College of Engineering &Tecnology, Karaikudi, Tamilnadu on 18.03.2013.

EVENT(INDUSTRIAL VISIT) Arranged:

1. BHEL Trichy - 4 days
2. CECRI Karaikudi- one day
3. BSNL Thanjavur- one day
4. NIFTEM Thanjavur- one day

FDP/ STTP Attended: (ATAL, TEQIIP, NITTTR, OTHERS)

ATAL FDP

1. Attended one week ATAL FDP on “Antennas & RF Circuits for Radio Frequency Energy Harvesting Applications for energizing low power devices” organized by Tripura University from 24.02.2025 to 01.03.2025.
2. Attended one week ATAL FDP on “AI-Enhanced 6G: Pioneering the Next Generation of Wireless Innovation” organized by Bannari Amman Institute Of Technology from 10.02.2025 to 15.02.2025.
3. Attended one week ATAL FDP on “Next Generation Communication” organized by S.V.P.M ‘S College of Engineering , Malegaon BK Baramati from 20.01.2025 to 25.01.2025.
4. Attended ATAL FDP on “ 5G Antenna Design Engineering “ conducted by MAILAM ENGINEERING COLLEGE from 06.12.2021 to 10.12.2021.
5. Attended ATAL FDP “High Speed Wireless and Optical Technologies for developing Global Network” conducted by ATAL, Chandigarh College of Engineering and Technology from 04.10.2021 to 08.10.2021.
6. Attended ATAL FDP on “Signal Processing for 5G and IOT” conducted by ATAL, Indian Institute of Information Technology Kalyani from 06.09.2021 to 10.09.2021.
7. Attended AICTE sponsored 2 Weeks FDP on “Computer vision & image Processing: Research issues ,Innovation and Applications” conducted by PSNA College of Engg& Tech From 30.12.2020 to 13.01.2021.
8. Attended ATAL FDP on “Internet of Things” conducted by KoneruLakshmaiah Education Foundation from 14.12.2020 to 18.12.2020.

9. Attended ATAL FDP on " Recent trends and Applications in Biomedical signal and image processing" conducted by G.H. Raison college of Engg, Nagpur from 21.09.2020 to 25.09.2020.

TEQIIP FDP

1. Attended one week TEQIIP –Tamilnadu sponsored FDP on" Microwave Engineering " conducted by GCT Coimbatore and AlagappaChettiar College of Engineering and Technology, Karaikudi from 02.08.2021 to 06.08.2021.
2. Attended one month MHRD,IIC sponsored STTP ON "Innovation Ambassador training(Advanced level) conducted by MHRD,IIC Newdelhi from 30.06.2021 to 30.07.2021.
3. Attended one week TEQIIP –Tamilnadu sponsored FDP attended on" Advancements in Optical Communication Research " conducted by Govt. College of Technology, Coimbatore and AlagappaChettiar College of Engineering and Technology, Karaikudi. From 21.06.2021 to 25.06.2021 .
4. Attended one month MHRD IIC sponsored "IIC Innovation Ambassador Series" organized by MHRD, IIC Newdelhi from 30.06.2021 to 30.07.2021.
5. Attended TEQIP –III Sponsored FDP on ' Nanotechnology based Green Energy solution for Solar cells" conducted by Swami Keshvanand Institute of Technology, Jaipur from 10.09.2020 to 14.09.2020.
6. Attended TEQIIP ,Tamilnadu sponsored FDP attended on" Advancements in Optical Communication Research " conducted by Govt. College of Technology, Coimbatore and Alagappa Chettiar College from 21.06.2020 to 25.06.2020.
7. Attended "IIC Innovation Ambassador Series" as a IIC convener conducted by RMK Engineering College, Chennai, from 08.01.2020 to 09.01.2020.
8. Attended one week STC on 'Recent Trends and Developments in Broadband Technologies" (QIP program) conducted by Pondicherry Engineering college, Pudhucherry-605014 from 07.11.2016 to 11.11.2016.

NITTTR Courses

1. Attended one week FDP on “Communication System and its Application in Under water” conducted by NITTTR Chennai from 16.12.2024 to 20.12.2024.
2. Attended one week FDP on “IoT and Embedded Systems” conducted by NITTTR, Chandigarh from 23.09.2024 to 27.09.2024.
3. Attended one week FDP on “MATLAB Programming” conducted by NITTTR, Chandigarh from 09.09.2024 to 13.09.2024.
4. Attended o one week STTP on "NAAC Accreditation Process" conducted by NITTTR, Chennai from 23.11.2020 to 27.11.2020.
5. Attended one week STTP on “Wireless communication” conducted by NITTTR, Chennai from 09.11.2020 to 13.11.2020.
6. Attended one week STTP on “ Choice Based Credit System(CBCS) and Student’s Performance Evaluation” conducted by NITTTR, Kolkata from 01.06.2020 to 05.06.2020.
7. Attended one week STTP on Technological interventions using wireless communication conducted by NITTTR, Chandigarh from 18.05.2020 to 22.05.2020.
8. Attended one week STTP on “Advances in Antenna Design Techniques and Simulations using CST Studio Suite” conducted by NITTTR, Chandigarh from 22.06.2020 to 26.06.2020
9. Attended one week FDP on “ Embedded System and IoTs” conducted by NITTTR, Chandigarh from 23.09.2019 to 27.09.2019.
10. Attended one week FDP on “ 5G Communication” ” conducted by NITTTR, Chandigarh from 18.11.2019 to 22.11.2019.
11. Attended one week STTP on “Management Issues of Laboratory and Workshop Class” conducted by NITTTR, Chandigarh from 04.11.2019 to 08.11.2019.
12. Attended one week STTP on “Introduction to Network Security” conducted by NITTTR, Kolkata from 24.06.2019 to 28.06.2019.
13. Attended one week STTP on “NBA Accrediation” conducted by NITTTR, Kolkata from 22.04.2019 to 26.04.2019.
14. Attended one week STTP On “Development of Laboratory Instruction and Manual” conducted by NITTTR, Kolkata from 04.02.2019 to 08.02.2019.

OTHERS STTP, FDP

1. Attended one week Faculty Development Program on “Next-Generation Wireless Communication Systems: Trends, Technologies and Future Directions” organized by Department of Electronics & Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, NTR District from 10.02.2025 to 14.02.2025.
2. Attended one week FDP on “Future Trends and Design Challenges in 5G/6G Wireless Technologies” organized by the Department of Electronics and Communication at Vel Tech Multi Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai. From 18.11.2024 to 23.11.2024.
3. Attended 21 days Master class on “python Programming” organized by Pantech e learning Pvt. Ltd., Bangalore from 27.03.2024 to 19.04.2024.
4. Attended one week FDP on “Generative AI” organized by the Department of Electronics and Telecommunication, D Y PATIL College of Engineering, AKURDI,PUNE with PANTECH E LEARNING conducted on 04.02.2024 to 09.02.2024.
5. Attended five days webinar on “Artificial intelligence and Machine Learning” organized by Department of Electronics and Communication Engineering, Dhanalakshmi College of Engineering, Trichy. from 17.07.2023 to 27.07.2023.
6. Attended one week FDP on “ Advanced Research Methodology.” Conducted by Amiruddaula Islamia Degree college, Lucknow from 21.03.2022 to 27.03.2022.
7. Attended one week FDTP on “Wireless communications” conducted by Anna University Chennai from 24.01.2022 to 31.01.2022.
8. Attended one week SERB sponsored FDP on “Recent trends in free space optics and its applications “ (RFA-2021) conducted by NIT, Surathkal, Karnataka from 04.10.2021 to 08.10.2021.
9. Attended one week STTP on Next Generation Wireless technologies: 5G and beyond” conducted by Indo global college of Engineering from 12.07.2021 to 17.07.2021.
10. Attended one week FDP on “Recent Advancement in Electronics and Communication Engineering” conducted by Dr. N.G.P Institute of Technology, Coimbatore from 08.06.2021 to 13.06.2021.
11. Attended one week FDP on “Research Challenges and issues in wireless communication and networks” conducted by Sri Ramakrishna Institute of technology, Coimbatore from 25.01.2021 to 07.02.2021.

12. Attended one week STTP on “ Radars and Sonars:In Academic, Industrial and defence perspective (Phase-III) conducted by PSG college of technology from 14.12.2020 to 19.12.2020.
13. Attended one week STTP on “ Long range (LoRa) Wireless Area Networks : A futuristic Approach” conducted by K S R Institute for Engineering and Technology Namakal from 07.12.2020 to 12.12.2020.
14. Attended one week STTP on "Integration of renewable energy sources" organized by Arya college of Engineering Jaipur from 02.11.2020 to 07.11.2020.
15. Attended one week FDP on "RF devices for 5G Communications & Measuring Instruments" conducted by K. Ramakrishnan college of technology from 12.10.2020 to 16.10.2020.
16. Attended one week FDP on “ Advanced Communication Laboratory” conducted by PSNA College of Engineering & Technology, Dindigul from 20.07.2020 to 25.07.2020.
17. Attended 3 days FDP on “RECENT TRENDS IN VLSI DESIGN & ITS RESEARCH ISSUES IN INDUSTRY Compliance “ conducted by SRM INSTITUTE OF SCIENCE AND TECHNOLOGY from 16.07.2020 to 18.07.2020.
18. Attended one week international FDP on “IOT” conducted by Eswari Engineering College, Chennai from 18.07.2020 to 25.07.2020.
19. Attended one week FDP on “ Power Electronic Applications to Renewable energy systems and Energy storage systems” conducted by The NATIONAL INSTITUTE OF ENGINEERING, Mysuru – 5 from 06.07.2020 to 10.07.2020.
20. Attended one week FDP on “ State –of- the- Art Technologies in ICT” conducted by Dr. M.G.R. Educational and Research Institute, Chennai, from 22.06.2020 to 26.06.2020.
21. Attended one week FDP on “Antenna applications and Microwave design” conducted by Sairam Institute of Technology, Chennai from 15.06.2020 to 20.06.2020.
22. Attended one week FDP on “Skill development for effective Research and Teaching-Learning Process” conducted by Anil Neerukonda Institute of Technology & Sciences , Visakhapatnam Dt. From 08.06.2020 to 12.06.2020.

23. Attended one week FDP on “Modern IOT Technology Tools & Design for Real Time Applications” conducted by Sairam institute of technology, Chennai from 03.06.2020 to 09.06.2020.
24. Attended one week FDP on “Computer communication” conducted by Sairam institute of technology, Chennai from 21.05.2020 to 27.05.2020.
25. Attended one week FDP on “Tolls explode with disruptive technologies” conducted by Sairam institute of technology, Chennai from 15.05.2020 to 20.05.2020.
26. Attended one week International FDPo “Research challenges and innovatios in renewable energy systems” conducted by AVIT from 11.05.2020 to 16.05.2020.

WORKSHOP

1. Attended one week AICTE–MARGDARSHAN Scheme National Workshop on “Perspectives of Teaching and Learning of Engineering Sciences for Outcome Based Education” conducted by NIT- Trichy from 15.06.2020 to 20.06.2020.
2. Attended Two days workshop on “CAD of Microwave Integrated Circuits” conducted by National Institute of Technology, Tiruchirappalli from 09.06.2018 to 10.06.2018.
3. Attended one day workshop on ” “ANTENNA DESIGN USING ADS SOFTWARE TOOL” conducted by VAIGAI COLLEGE OF ENGINEERING-Madurai on 07.10.2017.
4. Attended one day workshop on ““Advancement in mobile Apps” conducted by iSYSWAY Technologies, Thanjavur on 23.09.2017.
5. Attended one day workshop on “Calibration of electro technical instruments” conducted by Kings College of Engineering, Punalkulam in association with SAKTHI POWER SOLUTION PVT LTD, Thanjavur on 30.03.2016.
6. Attended one day workshop on “Android Technologies” conducted by iSYSWAY Technologies, Thanjavur on 11.09.2015.
7. Attended 3 days workshop on “Networks in MNC” conducted by Kings College of Engineering, Punalkulam in association with MACNUS solutions from 22.07.2015 to 24.07.2015.
8. Attended one day national level workshop on “Artificial intelligence and expert systems” conducted by Kings college of Engineering Punalkulam on 04.09.2014.
9. Attended one day workshop on “Open source SCI LAB programming” conducted by SASTRA University, Thanjavur on 30.08.2014.

10. Attended two days workshop on “MATLAB- SIMULINK & APPLICATIONS” conducted by Anna University, Tiruchirapalli from 31.01.2013 to 01.02.2013.
11. Attended two days workshop on “Implementing DSP designs in FPGA using DSP Builder” conducted by Oxford Engineering College Tiruchirapalli. In Association with ENIXS Tiruchirapalli from 07.09.2012 to 08.09.2012.
12. Attended three days workshop on “NETWORK ON CHIP ARCHITECTURES” conducted by Oxford Engineering College Tiruchirapalli from 23.02.2012 to 25.02.2012.

SWAYAM CERTIFICATES

1. Received Trainner certificate on “IoT FDP Training(MTPR4T5, Provided by IBMCE)”, A course on ibmcep.cognitiveclass.ai Powered by IBM Developer Skills Network issued by IBM Career Education Program on 11.03.2024.
2. Received SWAYAM certificate on “Pedagogical Innovations and Research Methodology” Exam held on 21.08.2021- duration 1-12.2020 to 31.03.2021 .
3. Received SWAYAM certificate on “Big Data analytics for Smart grid” - 2020.
4. Received online certificate on performance analysis of Network using NS3 -2020.

ONLINE COURSES ATTENDED

Successfully completed the following NPTEL courses on VLSI Signal Processing, Photonic integrated circuit, Optical Wireless Communications for Beyond 5G Networks and IoT, Fiber Optic Communication Technology, Optical Fiber Sensors, Discrete Time Signal Processing, Signal Processing for mm Wave communication for 5G and beyond, Principles of Signal Estimation for MIMO/ OFDM Wireless Communication, Spread Spectrum Communications and Jamming, Fundamentals of MIMO Wireless Communication, Antennas, Principles of Modern CDMA MIMO OFDM Wireless Communications, Introduction to Wireless and Cellular Communications.