

Name of Faculty Dr. M.Sushanth Babu  
 Designation Professor  
 Nature of Job/Appointment Regular  
 Date of Joining 13-09-2023  
 E-mail sushanthbabum\_ece@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (ECE)	Awarded
PG	M. Tech. (DSCE)	Distinction
UG	B. E. (ECE)	Distinction

**Work Experience**

Teaching 22 Years  
 Research 06 Years  
 Industry --  
 Others --

Area of Specialization Wireless Communications, Cooperative Communications, Vehicular Networks and 5G/6G Communications

**Professional Memberships**

FIETE, LMISTE

**Responsibilities held at Institution Level**

1. Director-IQAC, MECS, Hyderabad, 2017 to 2023.
2. Coordinator Member for UGC-Autonomous, MECS, Hyderabad, 2023.
3. Coordinator for NAAC Accreditation, MECS, Hyderabad, 2022.
4. Coordinator for NBA Accreditation, MECS, Hyderabad, 2022.
5. Coordinator for NBA Accreditation, MECS, Hyderabad, 2019.
6. Member of College Academic Council (CAC), MECS, 2019-2023.
7. Coordinator for MHRD-IIC, MECS, 2019-2021.
8. Coordinator for MSME Business Incubation Center, MECS, 2019.
9. Principal, Jayamukhi Institute of Technological Sciences (JITS), 2013 to 2016.
10. Chairman, JBOS, JITS, Warangal, 2015-16.
11. Chairman, Governing Body, JITS, Warangal, 2013 to 2016.

**Responsibilities held at Department Level**

1. Member of BOS, MECS, Hyderabad, 2023.
2. In-charge Head, MECS, Hyderabad, 2018-2023.
3. Member of DAC, MECS, Hyderabad, 2017-2023.
4. Member of PAC, MECS, Hyderabad, 2017-2023.
5. Editor of Shodhana Magazine, 2018-2022.
6. Member of R&D, ECE, 2017-2023.
7. Coordinator IQAC, Vardhman, Hyderabad 2016-17.
- Member of BOS, JITS, 2015-16.

**Research Guidance**

1. Recognized guide for KL University, Annamalai University and VT University for guiding PhD scholars.
2. one (1) Scholar was awarded with PhD.
3. Two (2) Scholars are perusing PhD.

**Awards Received**

1. Primary Evaluator, SIH, AICTE, Ministry of Educations Innovation Council, 2021.
2. Primary Evaluator, AICTE, Ministry of Educations Innovation Council, Toycathon, 2021.
3. Review Member of AICTE Model Curriculum.
4. Recognized reviewer of DST-SERB, 2023.

**Courses Handled at Under Graduate / Post Graduate Level.**

COA, CAMP, CMC, WSN, Radar Engineering, Satellite Communications, Digital Electronics, Information Teary and Coding, ACA, and WCN.

	National Journals – 0	International Journals – 25
No. of Papers Published	National Conference – 02	International Conference – 20
Projects Carried out	<ol style="list-style-type: none"> <li>1. Development of Multiferroic Composites and Fabrication of a Proto-type Multiferroic Energy Harvesters, UCG- CSR/2022-23/1048, Ongoing.</li> </ol>	
Patents	<ol style="list-style-type: none"> <li>1. DESIGN AND DEVELOPMENT OF HEAVY DRONE FOR FIRE FIGHTING OPERATION- The Patent Office Journal No. 38/2022 Dated 23/09/2022.</li> <li>2. IHEC- VEHICLE- INTELLIGENT HYBRID ELECTRIC CONVENTIONAL VEHICLE- The Patent Office Journal No. 11/2020 Dated 13/03/2020.</li> </ol>	
Technology Transfer	<ol style="list-style-type: none"> <li>1. Technical Program Committee Member of 51 IEEE Conferences.</li> <li>2. Technical Program Committee Member of 09 Springer Conferences.</li> <li>3. Session Chair for 03 Springer Conferences.</li> <li>4. Served as Reviewer for Wireless Personal Communications, Springer.</li> </ol>	
Invited Speaker	<ol style="list-style-type: none"> <li>1. Delivered lecture on, “National Educational Policy [NEP] implementation in HEIs”, 15<sup>th</sup> Sep. 2022, Matrusri Educational Society.</li> <li>2. A Session on, “Research Opportunities and Challenges in Future Wireless Communications”, FDP, KPR Institute of Engineering &amp; Technology, 19<sup>th</sup> July, 2022</li> <li>3. A session on “NAAC Assessment and Key Indicators”, Matrusri Engineering College, 2021.</li> <li>4. Delivered lecture on, “ Aware on National Assessment and Accreditation Council (NAAC) to HEIs”, Matrusri Engineering College, 2021.</li> <li>5. A session on “Research Methodology and Article Writing”, Matrusri Engineering College, 2020.</li> </ol>	
No. of Books/Chapter Published with details	<ol style="list-style-type: none"> <li>1. “Performance Analysis of WCDMA Systems with High Speed Networks”, LAMBERT Academic Publishers, Germany. ISBN: 978-3-659-33509-9.</li> <li>2. “Analysis of Single-Frequency Dual-Cell HSDPA”, LULU publishers, US. ISBN: 978-1-329-94127-4.</li> <li>3. “Analysis of Demappers and Decoders for LDPC-Coded Systems”, LULU publishers, US. ISBN: 978-1-329-94121-2.</li> <li>4. “An Energy Efficient Solar System”, LULU Publishers, US, ISBN: 978-1-365-69778-4.</li> <li>5. “Low Power Transmission System Based on Smart Technologies”, LULU publishers, US, ISBN: 978-1-365-69777-7.</li> <li>6. “Multiple-Inputs-Multiple-Outputs Basic Concepts for Research”, LULU Publishers, US, ISBN: 978-1-365-69776-0.</li> </ol>	
	<b>FDPs Attended: 2022-23</b>	
Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (Attended and/or Organized).	<ol style="list-style-type: none"> <li>1. Participated in 10 Days FDP on, “Recent Trends in Signal and image Processing applications”, Sponsored by Meity, Gol, E&amp;ICT, Vasavi College of Engineering, 12<sup>th</sup>-21<sup>st</sup> July 2023.</li> <li>2. Participated in, “Latest trends in Electronic warfare and Radar systems (focused on Drone and UAV applications”, IETE, Hyderabad, 28<sup>th</sup> May, 2023.</li> <li>3. Participated in One Week FDP on “Machine Learning for Image and Video Analysis” organized by E&amp;ICT Academy IIT Guwahati, EECE, GST,GITAM, Visakhapatnam, 26<sup>th</sup> June-01<sup>st</sup> July, 2023.</li> </ol>	

4. Attended One Week FDP on, "MODEL BASED SYSTEM DESIGN FOR AUTOMOTIVE ENGINEERING: A MATLAB APPROACH" organized by E&IE Department in association with Centre for Continuing Education, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu, during 12<sup>th</sup> to 16<sup>th</sup> June, 2023.
5. Participated in one Week FDP on, "Performance Analysis of Wireless Communication Systems", IIT- Ropar, 26<sup>th</sup> to 1<sup>st</sup> June 2023.
6. Participated in the IETE Knowledge Sharing Session (KSS) on "Intelligent Reflecting Surface (IRS) Fundamentals and Applications for Wireless Communications" IETE, Hyderabad, 18<sup>th</sup> June 2023.
7. Attended 02 Days State level Seminar on, "NEP: Quality Enhancement and Reforms in HEIs", Sri Ramakrishna Engineering College, 4<sup>th</sup>-5<sup>th</sup>, Aug-2022.
8. Attended 02 days NAAC Sponsored seminar on, "Strategic Planning and Implementation of OBE in NEP-2022", Methodist College of Engineering & Technology in collaboration with National Assessment and Accreditation Council (NAAC).
9. Attended 01 week Faculty Development Program, "Recent Trends in Intelligent Systems", 27<sup>th</sup> Jan- 2<sup>nd</sup> Feb, 2022, AICTE-STTP, Vardhaman College of Engineering,
10. Attended 01 week Faculty Development Program, "Research Opportunities in Emerging Areas of Electronics and Communication Engineering", KPR Institute of Engineering and Technology, Coimbatore, India, 18<sup>th</sup>-23<sup>th</sup> July 2022.
11. Attended 01 Week Faculty Development Program, "Wireless Sensor Network Simulation using NS2" ,E&ICT, NITW & Vardhaman College of Engineering, Hyderabad.

**FDP/Workshop Organized:**

1. 03 Days Technical Workshop on Recent Advances in 5G & Beyond", 3<sup>rd</sup> to 5<sup>th</sup> Aug., 2023.
2. Coordinator of one week FDP on, "Advances in Wireless Communications: Challenges and Solutions", in association with E&ICT Academy, NITW, Matrusri Engineering College 11<sup>th</sup>-17<sup>th</sup> March 2019.
3. Coordinator of One week FDP on, "Advances in Signal Processing for IOT Applications," in association with E&ICT Academy, NITW, 21<sup>st</sup>-17<sup>th</sup> Jan-2017.
4. Convener of "IEEE Warangal Zonal Congress-2015", Sponsored by IEEE Hyderabad Section, 31<sup>st</sup> Aug- 1<sup>st</sup> Sep-2015.
5. Convener of National level workshop on PCB DEESIGN sponsored by AICTE, Delhi, Aug. 2<sup>nd</sup>&3<sup>rd</sup>, 2014.
6. Convener of Faculty Development Program on Future Wireless Technology Challenges & Opportunities Nov. 26<sup>th</sup>&27<sup>th</sup>, 2013.
7. Convener of National level workshop on ROBOTICS & ANDRIOD, in association with IIT, Gawahati, India, Aug. 2<sup>nd</sup>&3<sup>rd</sup>, 2013.
8. Convener of National Conference on Wireless Communication Systems, sponsored by AICTE, Delhi, Aug.19<sup>th</sup> -20<sup>th</sup>,2011.
9. Two Days State Level Workshop on Low Power VLSI, sponsored by AICTE in 2008.

Details of Journal Publications/ Conferences

Years (s):

**Journal publications [2017-2023]**

**"Image Transmission In Mobile Wireless Multimedia Sensor Networks Using Cat Swarm Optimization"**, Multimedia Tools and Applications, Springer (SCI-Q1), July 2023. <https://doi.org/10.1007/s11042-023-16302-z>.

**"Optimal Relay Selection Strategy for Energy Efficient Cooperative Multi-Hop Image Transmission in Wireless Multimedia Sensor Network"**, Cybernetics and Systems, Taylor & Francis, Dec., 2022, DOI: 10.1080/01969722.2022.2157602.

**"Energy Aware Cooperative Image Transmission for Multi-Radio Multi-Hop Wireless Sensor Networks"**, International Journal of Intelligent Engineering and Systems, Vol.15, No.4, 2022. DOI: 10.22266/ijes2022.0831.05

**"Energy Efficient Multi-hop Cooperative Transmission Protocol for Large Scale Mobile Ad hoc Networks"** Wireless Personal Communications. Springer, Vol.1, No.4, pp3309–3328 (2021), Doi.org/10.1007/s11277-021-08878-2.

**"Delay Aware Hybrid Routing for Large Scale Cooperative D2D Networks"**, International Journal of Intelligent Engineering and System, Vol.14, No.2, Pp:547-555

**"50mv/Bar Sensitivity; Piezoresistive MEMS Altimeter Design for The Agricultural Drones"**, Materials Science and Engineering 1145 (2021) 012088 IOP Publishing doi:10.1088/1757-899X/1145/1/012088.

**"Large Scale Cooperative Wireless Networks: Relay Selection and Performance Analysis"** International Journal of Advanced Trends in Computer Science and Engineering (IJATCSE), Vol.9, No.4, 2020

**"Distributed Coding for OFDM based Cooperative HF Radio Communication System"**, International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-2, July 2019. DOI: 10.35940/ijrte.B2849.078219.

**"Energy Efficient Transmission for Multi-Radio Multi-Hop Cooperative Wireless Networks"**, International Journal of Advance Research in Dynamics & Control System, , Vol.16, no.4, 2018, ISSN:1943-023x.

**"Shortest Path Cooperative Relay Selection For Multi Radio -Multi Hop Wireless Networks"**, International Journal of Pure and Applied Mathematics, Vol. 117, Volume 117 No. 18 2017, 9-14 , 2017.

**"Bit Error Rate Performance using Protected Turbo Encoder"**, International Journal of Applied Science and Computations", Vol.04, no.05, Oct-2017

**"Design and Analysis of CMOS Logic and Transmission Gates Hybrid Full Adder Using CMOS Logic and Transmission Gates"**, International Journal of Research, Col.04, no.04, April-2017

**Conference Publications: [2017 -2023]**

**"Transmission Over Parallel Relaying Wireless Multimedia Sensor Network"**, International Conference On Computational Intelligence And Computing Applications-21 (ICCICA-21), Jan 2022

**"Deep Learning based approach for Prediction of Yoga Posture using Yoga Asana Images"**, 2nd International Conference On Advances in Signal Processing, VLSI, Communications and Embedded Systems (ICSVCE 2022), 29th-30th July, 2022.

**"Design Of 14 Bit Current Steering D/A Converter With Self-Checking Circuit For High Speed IoT Applications"**, International Conference on Computational Intelligence and Computing Applications-ICCICA-21, AIP Conference Proceedings, 21 March, 2022.

**"Energy Efficient Cooperative Communication in Multi-Radio Multi-Channel Large Scale MANETs"**, IEEE International Conference on Mobile Networks and Wireless Communication, Dec, 2021.

**"Analysis of Cooperative Image Transmission over Parallel Relaying Wireless Multimedia Sensor Network"**, Proceedings of the International Conference on Computational Intelligence and Computing Applications -21 (ICCICA-21) AIP Conf. Proc

**"Cluster Based Routing Algorithm for Large Scale Cooperative Mobile Adhoc Networks"**, 8th International Conference on Computing, Communication & Sensor Networks, CCSN2019, 19th-20th OCT-2019.

**"Improvement in Sum-Rate Maximization Using Game Theory in Massive MIMO Heterogeneous Networks"**, 3rd International on Data Engineering and Communication Technology, 14th to 16th March 2019-Springer.

**"PS-DCT Image Functioned Framework for Steganography"**, IEEE International Conference on Recent Innovations in Electrical, Electronics and Communication Engineering, KIIT University, 27<sup>th</sup>-28<sup>th</sup> ,July 2018

**"Vector Quantization- A Comprehensive Study"**, IEEE International Conference on Science, Technology, Engineering and Management (ICSTEM'17), pp. , 3rd -4th March-2017.