**Profile of Dr.CH.NAGARAJU**

Name: Dr.CH.NAGARAJU

Designation: Professor & Head,

Department: ECE

Teaching Experience: 15 Years

Mobile Number(s): 9989994021

Mail-ID: chrajuaits@gmail.com

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| **Educational Qualifications** |

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| S.No. | Level(UG/PG/Ph.D) | year | Specialization |
|  | Ph.D | 2016 | Wireless Communications |
|  | M.Tech | 2005 | Communication & Signal Processing |
|  | B.Tech | 2002 | Electronics & Communication Engineering |

**Details of Ph.D:**

***Thesis Title***: BER Performance Analysis and PAPR Mitigation in MIMO-OFDM System

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| **Teaching and Learning** |

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| **Teaching Interest:** |

* Adhoc Networks
* Signal Processing
* Electronic Devices & Circuits
* Analog and Digital Communications
* Wireless Communications & networks
* Circuit Analysis

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| **Teaching & Learning Techniques Adopted** |

* ICT
* Project Based Learning

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| **Curriculum Updation/Design** |

Actively involved in the designing of course structure and syllabus and also involved in preparation of PEOs, Pos and Cos.

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| **Roles & Responsibilities** |

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| **Department Level** |

* Board of Studies: Chairman, Department of ECE
* IQAC: Ex-Officio member
* Academic Council: Member
* Departmental Committee (DC): Chairman- M. Tech & B.Tech (Academic Projects
* Quality Circles: Chairman, ECE
* ECE Antrix Association: President

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| **Institute Level** |

* Targetorate Industry Interaction Program: In-charge
* Academic Section: In-Charge

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| **Events Organized** |

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| **Technical & Cultural Fests** |

1. Convenor: Organized a National Level Technical and Cultural Fest ATM-19 on 14th February 2019 14/2/19
2. Convenor: Organized a National Level Technical and Cultural Fest on 7th February 2018

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| **Conferences** |

1. Organizing Chairman : National Conference On Smart Electronics: Engineering The Future of Intelligence (NC’SEFI-2024), 20th April 2024.
2. Convenor: Organized a National Conference on “Emerging Trends in Information, Digital and Embedded Systems (NC’e-TIDES-19)” from 13th -14th March 2019

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| **Workshops** |

1. Convenor: Organized a Two day workshop on “Industrial Automation System using PLCs” From 20th – 21st September 2019 and 10th -11th March 2018
2. Convenor: Organized a Two day workshop on “Matlab and Its Applications” from 21st -22nd August 2019
3. Convenor: Organized a Two day workshop on “Antenna Design Fabrication and Link Deployment” from 30th -31st July 2019 and 13th -14th October 2017
4. Convenor: Organized a One week workshop on “Industrial Robotics” 15th – 20th September 2019
5. Convenor: Organized a Two day workshop on “VLSI design methodology” from 7th -8th March 2019 and 25th -26th February 2018
6. Convenor: Organized a Two day workshop on “PCB Design” from 20th -21st February 2019 and 14th -15th October 2017
7. Convenor: Organized a Two day workshop on “Introduction to MATLAB” from 25th -26th September 2018
8. Convenor: Organized a Two day workshop on “Embedded system Design using Micro controllers” from 14th -15th September 2018
9. Convenor: Organized a Three day workshop on “Embedded system Design using Micro controllers” from 12th -14th September 2017

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| **Academic Contributions and Research** |

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| **Patents** |

1. ***Title of Invention***: IoT System to Detect and Analyze Gait of an Individual and Method Employed Thereof

***Application Number***: 201941043934

***Published Date***: 01/11/2019

***Publication Agency***: IPR India

1. ***Title of Invention***: Computer Implemented Method and System for Processing Qualitative Imaging to Detect and Forecast Abnormalities

***Application Number***: 201941033884

***Published Date:*** 20/09/2019

***Publication Agency***: IPR India

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| **Journals** |

1. Kiran A, Nagaraju C, Babu JC, Venkatesh B, Kumar A, et al. (2024) Hybrid optimization algorithm for enhanced performance and security of counter-flow shell and tube heat exchangers. PLOS ONE 19(3): e0298731. <https://doi.org/10.1371/journal.pone.0298731> (**SCIE Indexed)**
2. Venkatesh, C., Chinna Babu, J., Kiran, A, CH.Nagaraju*.* A hybrid model for lung cancer prediction using patch processing and deeplearning on CT images. *Multimed Tools Appl* **83**, 43931–43952 (2024). <https://doi.org/10.1007/s11042-023-17349-8> (**SCIE Indexed**)
3. Venkatesh, C., Chinna Babu, J., Kiran, A, CH.Nagaraju*.* Correction to: A hybrid model for lung cancer prediction using patch processing and deeplearning on CT images. *Multimed Tools Appl* **83**, 43953–43954 (2024). <https://doi.org/10.1007/s11042-024-19208-6> (**SCIE Indexed**)
4. Babu, J. Chinna, Mudassir Khan, Mallikharjuna Rao Nuka, and C.H. Nagaraju. "Detection and Classification of COVID-19 Using Supervised Deep Learning on MRI Images." *International Journal of Bioinformatics Research and Applications*, vol. 19, no. 4, 2023, pp. 233-251. DOI: 10.1504/IJBRA.2023.135362. (**SCOPUS Indexed**)
5. Doss, B., Balamuralikrishna, P., Nagaraju, C.H., ..Lakshmaiah, D., BLOCKCHAIN-BASED SECURE BIG DATA STORAGE ON THE CLOUD, Naresh, S. Blockchain Technology for IoT and Wireless Communications, pp. 11-18, 2023 (**SCOPUS Indexed**)
6. Merrin Prasanna, N., Nagarau, C., Venkatesh, C., Subash Chandra Mouli, D., Riyazuddin, K., Rakesh Babu, B. (2024). Design and Development of Leaf Disease Detection Using the ML and Open CV for Tomato Plants. In: Kumar, A., Mozar, S. (eds) Proceedings of the 6th International Conference on Communications and Cyber Physical Engineering . ICCCE 2024. Lecture Notes in Electrical Engineering, vol 1096. Springer, Singapore. <https://doi.org/10.1007/978-981-99-7137-4_4> (**SCOPUS Indexed**)
7. Nagaraju, C., Mounika, P.L., Rohini, K., Naga Yaswanth, T., Maheswar Reddy, A. (2023). Design and Implementation of Built-In Self-Test (BIST) Master Slave Communication Using I2C Protocol. In: Kumar, A., Mozar, S., Haase, J. (eds) Advances in Cognitive Science and Communications. ICCCE 2023. Cognitive Science and Technology. Springer, Singapore. <https://doi.org/10.1007/978-981-19-8086-2_6> (**SCOPUS Indexed**)
8. Nagaraju, C.H., Ramya Sree, S., Jameela, P., Kartheek, C., Madhu Sudhan, B. (2023). PSO-Based Evolutionary Image Segmentation System for Analysis of Fatty Liver Level Recognition. In: Kumar, A., Gunjan, V.K., Hu, YC., Senatore, S. (eds) Proceedings of the 4th International Conference on Data Science, Machine Learning and Applications. ICDSMLA 2022. Lecture Notes in Electrical Engineering, vol 1038. Springer, Singapore. <https://doi.org/10.1007/978-981-99-2058-7_15> (**SCOPUS Indexed**)
9. Nagaraju, C.H., Patil, M.K., Maheswari, C., Rahul, U.K., Rajesh, D. (2023). A Novel Wideband Millimeter-Wave-Based OFDM Uplink System to Analyze Spectral Efficiency. In: Kumar, A., Senatore, S., Gunjan, V.K. (eds) ICDSMLA 2021. Lecture Notes in Electrical Engineering, vol 947. Springer, Singapore. <https://doi.org/10.1007/978-981-19-5936-3_74> (**SCOPUS**)
10. Nagaraju, C., Arshia Shajarin, S., Bhaskar Reddy, V., Bhaskar Reddy, V., Anil Kumar Reddy, C. (2023). Parametric Analysis for Channel Estimation in Massive MIMO Systems with 1-Bits ADCs. In: Kumar, A., Senatore, S., Gunjan, V.K. (eds) ICDSMLA 2021. Lecture Notes in Electrical Engineering, vol 947. Springer, Singapore. <https://doi.org/10.1007/978-981-19-5936-3_79> (**SCOPUS**)
11. Nagaraju, C.H., Kondagandla, R. (2022). IoT Based Live Monitoring Public Transportation Security System by Using Raspberry Pi, GSM& GPS. In: Gunjan, V.K., Zurada, J.M. (eds) Modern Approaches in Machine Learning & Cognitive Science: A Walkthrough. Studies in Computational Intelligence, vol 1027. Springer, Cham. <https://doi.org/10.1007/978-3-030-96634-8_43> (**SCOPUS**)
12. Nagaraju, C.H., Raju, B.N. (2022). Recursive Least Squares Linear Equalizer for Spectral Efficiency Enhancement in Green Radio Communications. In: Kumar, A., Senatore, S., Gunjan, V.K. (eds) ICDSMLA 2020. Lecture Notes in Electrical Engineering, vol 783. Springer, Singapore. <https://doi.org/10.1007/978-981-16-3690-5_137> (**SCOPUS**)
13. Dr.Ch.Nagaraju, G. Chandana, B. Manoj Kumar, C. Kishore Kumar, “Development of Hybrid Pre-coding Technique for Mimo Systems Based on Kalman Filter”,Springer, Lecture Notes in Electrical Engineering, Volume: 698, October 2020, Page No.:.451-460, doi.org/10.1007/978-981-15-7961-5\_45 **(SCOPUS)**
14. Dr.Ch.Nagaraju, Thirumalaiah G., Rajesh N., Bala Manikanta B., Sai Sivaram N., Prakash Raj T, “Automated Speed Braking System Depending on Vehicle Over Speed Using Digital Controller”, Springer, Lecture Notes in Electrical Engineering, Volume: 698, October 2020, Page No.:.537-545, doi.org/10.1007/978-981-15-7961-5\_52 **(SCOPUS)**
15. Dr.Ch.Nagaraju, Veera Prasad Reddy P., Suneel N., Kumar G.N. (2021) “Performance Analysis of LTE Based Transeiver Design Using Different Modulation Schemer”, Springer, Lecture Notes in Electrical Engineering, Volume: 698, October 2020, Page No.:.577-585, doi.org/10.1007/978-981-15-7961-5\_56 **(SCOPUS)**
16. Dr.Ch.Nagaraju, C.Venkatesh, K.Preethi, S.Sowmya, “Synchronization Method for MIMO-OFDM Systems Using CAZAC”, International Journal of Engineering Research, Volume: 8, Special Issue: 01, March 2019, Page No.:.84-88, ISSN NO. (Online):2347-6890, ISSN NO. (Print):2347-5013 **(UGC)**
17. Dr. Nagaraju Choudavaram, Ayesha Sidikha S., Chandrika Reddy V., Abdul Ajeej S, “Message Passing Algorithm for Compressed Sensing by Using Hybrid Vector Perturbation”, International Journal of Engineering Research, Volume: 8, Special Issue: 02, March 2019, Page No.:.137-139, ISSN NO. (Online):2347-6890, ISSN NO. (Print):2347-5013 **(UGC)**
18. CH. Nagaraju, Dr.Anil Kumar Sharma,Dr.M.V.Subramanyam, “Reduction of PAPR In MIMO-OFDM Using Adaptive SLM And PTS Technique” International Journal of Pure and Applied Mathematics, Special issue, Volume:118,Issue: No. 17, January 2018, Pg.No:355-373, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version),(**SCOPUS)**
19. CH. Nagaraju, Dr.Anil Kumar Sharma,Dr.M.V.Subramanyam, “Reduction of PAPR In MIMO-OFDM Using Adaptive SLM And PTS Technique” Helix,the scientific Explorer, Volume:8,Issue: 01, December 2017, Pg.No:3016-3022, ISSN 2319 –5592 (Online), DOI 10.29042/2018-3016-3022, (**WEB OF SCIENCE)**
20. Dr.CH.NagaRaju, T.Madhu Krushna,S.Pavan kumar reddy,,S.Mohmmad Farooq “Design Of Intelligent Safety Helmet Sytem For Motarcyclist” **International Journal of Engineering and Techniques, Special Issue,** April 2018**, Pg.No:1-5,** ISSN: 2395-1303 **(UGC)**
21. Dr.CH.NagaRaju, M. Sailendra pavan kumar, K. Manikanth Reddy “MRI Denoising Based On Wavelet Shrinkage Method” **International Journal of Engineering and Techniques, Special Issue,** April 2018**, Pg.No:1-7,** ISSN: 2395-1303 **(UGC)**
22. CH.Nagaraju, Y.Naga Lakshmi, “**Automatic Dam Gate Control System With Caution Alaram Using ARM**” International Journal Research, Volume: 03, IssueNo.11, July 2016, Pg.No.:94-102,ISSN (Online): 2348-795X, ISSN (Print):2348–6848.
23. CH.Nagaraju, B.Suresh Kumar, “MIMO OFDM System using Self Heterodyne on Relay Path Analysis” International Journal of Advanced Technologyand Innovative Research, Volume:08, IssueNo.10, August 2016, Pg.No.:2015-2021,ISSN (Online): 2348-2370
24. **CH. Nagaraju, Dr. Anil Kumar Sharma, Dr. M.V. Subramanyam** “**A Novel Enhanced Technique for PAPR reduction Using Weighted OFDM signal**” International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), Volume:04, IssueNo.12, December 2015, Pg.No:446-450, ISSN (Online): 2278-1021, ISSN (Print): 2319 5940, DOI: 10.17148/IJARCCE.2015.412104
25. **CH. Nagaraju,** Mr. G.V.Bharadwaja Sarma **d** “Automotive Engine Temperature Control Employing Apt Temperature Measurement And Control Measures” International Journal of Engineering Research and Applications (IJERA) Volume:02, IssueNo.4, July-August 2012, Pg.No:1425-14290, ISSN: 2248-9622
26. CH.Nagaraju, M.V.Subramanyam,-“Quality of service oriented multimedia protocol for wireless Adhoc network” International Journal on Computer Science & Information Technologies, Volume 02, Issue:4,February 2011 Pg.No.: 1484-1488(ISSN 0975-9645).

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| **Conferences** |

1. - Nagaraju, C.H. Time-Correlated Fading Channels For Minimization of Energy Consumption In Wireless Networked Control Systems. 4th International Conference on Data Sciences, Machine Learning and Applications, International, Vasavi College of Engineering, Hyderabad, December 2022.
2. Nagaraju, C.H. A Stochastic Geometry Approach to Performance Evaluation of Multiuser NOMA Wireless Powered mMTC Networks. 4th International Conference on Data Sciences, Machine Learning and Applications, International, Vasavi College of Engineering, Hyderabad, December 2022.
3. Nagaraju, C.H. PSO-Based Evolutionary Image Segmentation System For Analysis of Fatty Liver Level Recognition. 4th International Conference on Data Sciences, Machine Learning and Applications, International, Vasavi College of Engineering, Hyderabad, December 2022.
4. Nagaraju, C.H. Color Image Segmentation Using Random Walker Approach. 4th International Conference on Data Science, Machine Learning & Applications (ICDSMLA), International, Vasavi College of Engineering, Hyderabad, Telangana, India, December 2022, Springer Publishers.
5. Nagaraju, C.H. Multi Focus Image Fusion Based on Convolutional Simultaneous Sparse Approximation. 4th International Conference on Data Science, Machine Learning & Applications (ICDSMLA), International, Vasavi College of Engineering, Hyderabad, Telangana, India, December 2022, Springer Publishers.
6. Nagaraju, C.H. Channel Estimation and Data Decoding Analysis of Massive MIMO with 1-bit ADCs. International Conference on Recent Trends in Machine Learning, IOT, Smart Cities & Applications (ICMISC 2022), International, Department of Computer Science & Engineering, CMR Institute of Technology, Hyderabad, Telangana, India, March 2022.
7. CH.Nagaraju, Arshia Shajarin S, V. Bhaskar Reddy, M. Bhaskar Reddy and C. Anil Kumar Reddy “Parametric Analysis for Channel Estimation in Massive MIMO systems with 1-Bits ADCs”, ICDSMLA 2021 International Conference on Data Science, Machine Learning & Applications.
8. CH.Nagaraju, Manoj Kumar Patil, C Maheswari, U.K. Rahul and D Rajesh “A Novel Wideband Millimeter-Wave based OFDM Uplink system to Analyze Spectral Efficiency”, ICDSMLA 2021 International Conference
on Data Science, Machine Learning & Applications.
9. CH.Nagaraju, S.Fahimuddin, B.Abdul Rahim, N.Baladastagiri “Computation of Relay Path Analysis in MIMO-OFDM System Using Self-Heterodyne Smart Carrier Position Technique”, International Conference on Advances in Scientific Computing (ICASC2016),Pg.No.:52-53 Organized by Department of Mathematics, IIT Madras, Chennai, India, 28th -30th November 2016.
10. **CH. Nagaraju, Dr. Anil Kumar Sharma, Dr. M.V. Subramanyam**, “Introduction of Adaptive SLM & PTS Techniques for Reduce PAPR in MIMO-OFDM ”, International conference on current Research in Emerging Trends of Engineering, Technology, Management, Arts, Science, Education, Pharmacy & Medical (CRETETMASEPM-2016), organized by Sunrise University, Alwar, Rajasthan & IIAR,GERA , Katriya Hotel, Hyderabad , 17-18th January 2016. ISBN No.:13:978-1522941347
11. CH.Nagaraju, Dr.M.V.Subramanyam, Dr. Anil Kumar Sharma, “A Novel Enhanced Technique for PAPR Reduction Using Weighted OFDM Signal”, IEEE Sponsored 3rd International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), organized by Department of ECE, Karpagam College of Engineering, Coimbatore, Tamil Nadu, 17-18th March 2016. ISBN No.: 978-1-4673-8207-6
12. **CH. Nagaraju, Dr. Anil Kumar Sharma, Dr. M.V. Subramanyam**, “BER Performance Analysis and PAPR Mitigation In MIMO OFDM Systems ”, International Conference on Emerging Novelties and Vistas in Space Technologies and Applications (ENVISTA – 2015) organized by Satyabama University, Chennai, in association with Indian Space Research Organization, Bangalore, India, 03rd -05th December 2015. ISBN:978-93-83409-12-9
13. CH. Nagaraju, **“**Energy efficiency in MASP using Wireless sensor Networks**”,**National conference on Computer Networks & Information security, Vasavi college of Engineering –Hyderabad,March-2014.

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| **Edited Books/Proceedings** |

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| S.No | Title of the Edited Book/Proceedings (Venue) | ISBN | Publisher | Month and Year |
|  | An Abstract Proceedings Of National Conference On Sustainable Electronics And Applications- August, 2021 | 978-93-91543-34-1 | OrangeBooks Publisher, India | August 2021 |

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| **FDPS, Workshops Attended** |

1. Attended One-week FDP on Cloud Infrastructures (AWS) on 21.08.2023 to 25.08.2023 organized by AITS Rajampet in collaboration with BrainOVision Solutions, India Private Limited.
2. Attended one-week FDP on “Recent Trends in VLSI and signal Processing” from 24th July 203 to 28th July 2023 organized by Department of ECE, SVCET, Chittoor, AP.
3. “Machine Learning in Big Data Analytics application and security challenges” from 24.04.2023 to 29.04.2023 organized by Dept. of CSE, MLR Institute of technology, Hyderabad, Telangana.
4. Attended a Two week online FDP on “Open power ISA RISC based architecture design(enabled by industry IBM)” organized by Electronics and ICT academies , from 18th - 29th October 2021.
5. Attended a Two week AICTE sponsored workshop on “Big data Analytics and Machine Learning” organized by department of CSE at AITS, Rajampet from 18th - 30th November 2019
6. Attended a Two day workshop on “VLSI Design Methodology Using Mentor Graphics Tools” (VDMGT-15) organized by Trident Techlabs Pvt. Ltd., in Technical Collaboration with IEI at AITS, Rajampet on 27-28th January 2015.
7. Attended a Eight Week workshop on “Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System” at AITS, Rajampet from 04th September to 26th November 2018
8. Attended a One week workshop on “Training The Teachers in Communicative English” at AITS, Rajampet from 19h-24thAugust 2013
9. Attended a Two day workshop on “Network simulation for MANETs & VANETs and sensor networks using NS2” at VIT University, Chennai Campus from 21st -22nd February 2014.
10. Attended a One day Workshop on “Embedded Systems” at Narayandri Institute of Technology & sciences, Rajampet on 8th March 2014

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| **Invited Talks** |

* 1. Guest Lecture on Fundamentals of Wireless Networks - February 2023, State, Siddhartha Institute of Science and Technology, Puttur.
	2. Technical Session Chair - December 2021, International, 3rd International Conference on Data Science, Machine Learning & Applications (ICDSMLA) – December 2021, Organizer: Mandya University, Mandya, Karnataka.
	3. Session Chair – Track 6 - August 2021, International, International Conference on Cybernetics, Cognition and Machine Learning Applications, 2021, Goa, India.
	4. \*\*Guest Lecture on Analog Circuits\*\* - November 2021, State, Siddhartha Institute of Science and Technology, Puttur.
	5. \*\*Jury Member-District level science fair-2020\*\* - 2020, State, Government of Andhra Pradesh at Nirmala English Medium High School, Kadapa.
	6. \*\*Guest Lecture on Cellular and Mobile Communications\*\* - October 2019, State, St. Johns College of Engineering & Technology.
	7. \*\*Special Talk on Performance Analysis Measures in MIMO OFDM\*\* - March 2019, International, International Conference on Data Science, Machine Learning & Applications (ICDSMLA) 2019, CMREC, Hyderabad.
	8. \*\*Jury Member-District level science fair-2019\*\* - 2019, State, Government of Andhra Pradesh at AITS, Rajampet.
	9. \*\*Technical Jury Member\*\* - 2018, National, National level Symposium Siddharth Quest-2K18 at Siddharth Institute of Engineering & Technology, Puttur on 17th February 2018.

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| **Projects Guided** |

Finding the industry partners and establishing rapport between department and industry partners and active involvement in the execution of projects.

* Under Graduate (UG):
* Post Graduate (UG):

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| **Awards/Honors/Recognitions Received:** |

1. Acted as a Judge for District level science fare-2020 (Science Exhibition), organized by Government of Andhra Pradesh at Nirmala English Medium High School, Kadapa.
2. Acted as a Judge for District level science fare-2019 (Science Exhibition), organized by Government of Andhra Pradesh at AITS, Rajampet.
3. Acted as a Judge for National level Symposium Siddharth Quest-2K18 at Siddharth Institute of Engineering & Technology, Puttur on 17th February 2018
4. Acted as a Examiner & Observer for Theory & Laboratory Examinations conducted by JNT University, Anantapuramu and other Autonomous Engineering Colleges
5. Subject Expert for Preparing External Question Papers for University and autonomous Engineering Colleges.
6. Best Paper Award in international conference (ENVISTA – 2015) conducted by Satyabama University, Chennai

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| **Memberships** |

1. IEI: Associate Member - AM-097391-5
2. IAENG: Life Member - 238274

 Signature

  **(Dr.CH.NAGARAJU)**