

Resume



Dr. J. Chinna Babu

Head of the Department
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Objective: Intend to build a career with a quality Institution with Committed & Dedicated people, which will help me to explore myself fully and realize my potential. Willing to work as a key player in Challenging & Creative Environment.

Experience: Worked as Asst. Professor at Annamacharya Institute of Technology and Sciences, New Boyanapalli, Rajampet from 2008 to Oct, 2020.

Working as Associate Professor at Annamacharya Institute of Technology and Sciences (Now Annamacharya University), New Boyanapalli, Rajampet since 2020.

Serving as Head of the Department at Annamacharya University, New Boyana Palli, Rajampet, since July 2025

Academic qualifications:

Course	Name of the College/University	% of marks	Year of passing
Ph. D. (E. C. E)	JNT University, Anantapur	---	2020
M.Tech. (VLSI SD)	JNT University, Anantapur	74.5	2009
B.Tech.(E. C. E)	JNT University, Hyderabad	67.0	2006
Intermediate	S.N.S.R.M College, Kovur	80.3	2002
S.S.C	T.N.C High School, Kovur	73.0	2000

Subjects Handled:

Under UG level:

Electronics Devices and Circuits
VLSI Design
Pulse and Digital Circuits
Linear IC Applications
Digital IC Applications
DSP Processors & Architectures
Switching Theory and Logic Design
Electronic Circuit Analysis
Linear and Digital IC Applications
Digital and Data Communications
Analog Communication
Digital Communication
Data Communication Systems
Digital Design/Digital Logic Design
Analog Electronic Circuits
Advanced Digital Design Concepts
Analog Circuits
Digital IC Design
Digital System Design through VHDL
Cellular and Mobile Communications

Under PG level:

Algorithms for VLSI Design Automation
VLSI Technology & Design
Testing & Testability
Digital System Design
Digital IC Design
DSP Processors & Architectures
FPGA Architectures & Applications
ASIC Design
Modern Digital System Design

Project Sanctioned:

- **Sanctioned Project Title:** Modelling analysis and real time implementation of distributed control for advanced energy management of cyber physical micro grids using multi agent system.

Project Cost: Rs. 14, 51,702-00

Sanctioned Letter No: DST/ICPS/CPS-Individual/2018/607

Role: Co-Principal Investigator

Patents Published:

- **1. Patent Application No:** 201941054297 A

Publication date: 09/10/2020

Title of the Invention: Self Reliability based Weighted Soft Bit Flipping Algorithm for decoding EG-LDPC codes

- **2. Patent Application No:** 201941053591 A

Publication date: 18/09/2020

Title of the Invention: An efficient Arithmetic VLSI architecture for DWPT error approximation

- **3. Patent Application No:** 202241040545 A

Publication date: 22/07/2022

Title of the Invention: Real time Implementation of Distributed Control for Advanced Energy Management of Cyber Physical Micro-grid using Multi Agent system

Books Published:

- Published a Book entitled “**Wearable and Implantable Electrocardiography for Early Detection of Cardiovascular Diseases**”, IGI Global-An International Publishers (Scopus indexed), ISBN: 9781-6684-4875-5.
- Published a Book entitled “**An Optimization of Hybrid Soft Bit Flipping algorithm: An Experimental approach**”, Lulu-An International Publishers, ISBN: 9781-4583-2390-3.

Papers Published in Journals:

- Published a paper entitled “**DANNET: deep attention neural network for efficient ear identification in biometrics**” in Peer J Computer Science Journal, 2025 (SCIE, Scopus Indexed).

- Published a paper entitled **“Enhancing remote sensing image fusion with deep learning attention fusion residual approach”** in Discover Applied Sciences Journal, 2025 (ESCI, Scopus Indexed).
- Published a paper entitled **“A Dynamic Hybrid Decoder approach using EG-LDPC Codes for Signal processing applications”** in Wireless Personal Communications -An International Journal, Springer, 2021 (SCIE Indexed, Scopus, DBLP, UGC recognized Journal).
- Published a paper entitled **“Local-Ternary-Pattern-Based Associated Histogram Equalization Technique for Cervical Cancer Detection”** in Diagnostics-MDPI, Vol. 2023(13), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“IoT-Based Intelligent System for Internal Crack Detection in Building Blocks”** in Journal of Nanomaterials-Hindawi, Vol. 2022, 2022 (Scopus indexed).
- Published a paper entitled **“Smart Contract-Enabled Secure Sharing of Health Data for a Mobile Cloud-Based E-Health System”** in Applied Sciences-MDPI, Vol. 2023(13), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Grade Classification of Tumors from Brain Magnetic Resonance Images Using a Deep Learning Technique”** in Diagnostics-MDPI, Vol. 2023(13), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Image Noise Removal in Ultrasound Breast Images Based on Hybrid Deep Learning Technique”** in Sensors-MDPI, Vol. 2023(23), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Design Optimization of Counter-Flow Double-Pipe Heat Exchanger Using Hybrid Optimization Algorithm”** in Processes-MDPI, Vol. 2023(11), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Application of multi agent systems for advanced energy management in cyber physical hybrid microgrid systems”** in Ain-Shams Engineering Journal, Vol. 15(3), 2024 (SCIE, Scopus indexed).
- Published a paper entitled **“Low-Power Very-Large-Scale Integration Implementation of Fault-Tolerant Parallel Real Fast Fourier Transform Architectures Using Error Correction Codes and Algorithm-Based Fault-Tolerant Techniques”** in Processes-MDPI, Vol. 2023(11), 2023 (SCIE, Scopus indexed).

- Published a paper entitled **“Health Recommendation System using Deep Learning-based Collaborative Filtering”** in Heliyon-Elsevier, Vol. 9(2023), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“A hybrid model for lung cancer prediction using patch processing and deeplearning on CT images”** in Multimedia Tools and Applications-Springer, Vol. 10(2024), 2024 (SCIE, Scopus indexed).
- Published a paper entitled **“Advances in real time smart monitoring of environmental parameters using IoT and sensors”** in Heliyon-Elsevier, Vol. 83, 2024 (SCIE, Scopus indexed).
- Published a paper entitled **“Edge detection using fast pixel-based matching and contours mapping algorithms”** in Plos One, Vol. 18(8), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Performance optimization for an optimal operating condition for a shell and heat exchanger using a multi-objective genetic algorithm approach”** in Plos One, Vol. 19(6), 2024 (SCIE, Scopus indexed).
- Published a paper entitled **“Detection of COVID-19 Based on Deep Learning Methods: A Critical Review”** in Studies in Computational Intelligence, Springer, Vol. 1117, 2024 (Scopus indexed).
- Published a paper entitled **“Google Appstore Data Classification Using ML Based Naïve’s Bayes Algorithm: A Review”** in Studies in Computational Intelligence, Springer, Vol. 1117, 2024 (Scopus indexed).
- Published a paper entitled **“Improved Radix-4 Fast Fourier Transform Algorithm Used for Wireless Communication”** in Studies in Computational Intelligence, Springer, Vol. 1117, 2024 (Scopus indexed).
- Published a paper entitled **“Enhancing a Learning Management System’s Effectiveness Through NEP-Compliant Curriculum Changes and Their Effects at HEIs”** in Lecture Notes on Data Engineering and Communications Technologies, Springer, Vol. 208, 2024 (Scopus indexed).
- Published a paper entitled **“Detection and classification of COVID-19 using supervised deep learning on MRI images”** in International Journal of Power and Energy Conversion, Inder science, Vol. 15, No. 4, 2024 (Scopus indexed).

- Published a paper entitled **“Influence of performance and emission of diesel engine with alumina nano material-based catalyst biodiesel using IoT”** in International Journal of Bioinformatics Research and Applications, Inder science, Vol. 19, No. 4, 2023 (Scopus indexed).
- Published a paper entitled **“Accelerated Addition in Resistive Ram Array Using Parallel-Friendly Majority Gates”** in in Studies in Computational Intelligence, Springer, Vol. 1117, 2024 (Scopus indexed).
- Published a paper entitled **“An efficient method for privacy protection in big data analytics using oppositional fruit fly algorithm”** in Indonesian Journal of Electrical Engineering and Computer Science, Vol. 37(1), 2025 (Scopus indexed).
- Published a paper entitled **“Deep learning-based attention models for sarcasm detection in text”** in International Journal of Electrical and Computer Engineering, Vol. 14(6), 2024 (Scopus indexed).
- Published a paper entitled **“Design and implementation of a wireless communication-based sprinkler irrigation system with seed sowing functionality”** in SN Applied Sciences, Vol. 5, 2023 (ESCI, Scopus indexed).
- Published a paper entitled **“Multi region minutiae depth value-based efficient forged finger print analysis”** in Plos One, Vol. 18(11), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Hybrid optimization algorithm for enhanced performance and security of counter-flow shell and tube heat exchangers”** in Plos One, Vol. 19(3), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Deep learning models for predicting the position of the head on an X-ray image for Cephalometric analysis”** in Intelligent Data Analysis Journal-IoS Press, Vol. 27, 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“An automatic diagnostic model for the detection and classification of cardiovascular diseases based on swarm intelligence technique”** in Heliyon-Elsevier, Vol. 10(2024), 2024 (SCIE, Scopus indexed).
- Published a paper entitled **“Wireless Sensor Networks Based on Multi-Criteria Clustering and Optimal Bio-Inspired Algorithm for Energy-Efficient Routing”** in Applied Sciences-MDPI, Vol. 2023(13), 2023 (SCIE, Scopus indexed).
- Published a paper entitled **“Clustered Single-Board Devices with Docker Container Big Stream Processing Architecture”** in Computers, Materials & Continua-CMC, Vol. 73(3), 2022 (SCIE, Scopus indexed).

- Published a paper entitled **“Design and Performance Analysis of Novel 8T3R NVSRAM Cell for Low Power and Embedded Applications”** in Symmetry Journal- MDPI, Vol. 14(4), 2022 (SCIE, Scopus indexed).
- Published a paper entitled **“A Hybrid Soft Bit Flipping Decoder Algorithm for effective signal transmission and reception”** in Telkomnika-The Telecommunication Computing Electronics and Control, Vol. 24(3), 2022 (Scopus indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Melanoma Skin Segmentation Process Using PCA and Morphological Methods”** in Studies in Computational Intelligence-Springer, Singapore (Scopus indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Safety Locker System with Image Identification by Using IOT”** in Studies in Computational Intelligence-Springer, Singapore (Scopus indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Improved Radix-4 FFT Algorithm used for Wireless Communication”** in Cognitive Science and Technology-Springer, Singapore (Scopus indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Outcome Based Education: A Paramount Model for Higher Educational Institutions in India”** in International Journal of Continuing Engineering Education and Life-Long Learning, Inder Science Publishers, Vol. 34(4), pp. 462-475, 2021 (Scopus Indexed, ESCI, DBLP, UGC recognized Journal),
- Published a paper entitled **“Throughput Comparison of Majority Logic Decoder/Detector with Other Decoders Used in Communication Systems”** in LNEE Springer, Springer, Singapore, Vol. 698, pp. 475-491, 2021 (Scopus Indexed).
- Published a paper entitled **“A Review on OTA with Low Power and Low Noise Techniques for Medical Applications”** in LNEE Springer, Springer, Singapore, , Vol. 698, pp. 493-506, 2021 (Scopus Indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Error Performance of Hybrid Weighted Bit Flipping decoder for Security Applications using EG-LDPC codes”** in International Journal of Advanced Science and Technology Journal, Science & Engineering Research Support Society, Vol. 29(4), pp. 669-678, 2020 (Scopus Indexed, DBLP, UGC recognized Journal).

- Published a paper entitled **“Implementation of Dynamic Decoders for Security Applications Using EG-LDPC Codes”** in LNEE Springer, Springer, Singapore, , Vol. 643, pp. 415-427, 2020. (Scopus Indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“An Intelligent Smart Black Box System for Crash Recovery”** in International Journal of Advanced Science and Technology Journal, Science & Engineering Research Support Society, Vol. 29(3s), pp. 37-42, 2020. (Scopus Indexed, DBLP, UGC recognized Journal).
- Published a paper entitled **“Computation of Parity Check Matrices for Binary EG-LDPC Codes used in Communication Systems”**, Helix Journal, Vol: 09(1), pp. 4823-4831, Feb-2019. (Web of Science, ESCI Indexed, Thomson Reuters Journal).
- Published a paper entitled **“IOT Multitasking: Design of Smart phone application for systematic execution and scheduling in real time environment”** Published in 2019 4th MEC International Conference on Big Data and Smart City (ICBDSC), IEEE Explore, pp. 1-6. (Scopus Indexed).
- Published a paper entitled **“Comparison of Various Decoding Algorithms for EG-Low Density Parity Check Codes”** Lecture Notes in Electrical Engineering, Springer nature, Singapore, Vol. 442, pp. 605-613. Oct. 2017. (Scopus, DBLP, UGC recognized Journal)
- Published a paper entitled **“VLSI Implementation of Decoding algorithms for EG-LDPC Codes,”** Elsevier Procedia, Netherlands. Vol. 115(3), pp. 143-150, Oct-2017 (Scopus, DBLP, UGC recognized Journal).
- Published a paper entitled **"Generation and Decoding of Non-Binary LDPC Codes using MSA Decoding algorithm"** Lecture Notes in Electrical Engineering, Springer nature, Singapore Vol. 434, pp. 583-591. Sept-2017. (Scopus, DBLP, UGC recognized Journal)
- Published a paper entitled **“Comparison of technologies for the implementation of SBF decoder for geometric LDPC codes,”** INDJST Journal., March 2016. (SCOPUS Indexed).
- Published a paper entitled **"Design of an Innovative and Efficient Personal Transporter"** International Journal of Advanced Trends in Engineering, Science and Technology, Vol. 4(1s), pp. 216-218. (UGC recognized Journal)

- Published a Paper entitled “**Emulator for FPGA based RADAR signal processing**” in International Journal of Engineering and Advanced Technology (IJEAT), Volume-2, Issue-1, October 2012. ISSN: 2249 – 8958.
- Published a Paper entitled “**Implementing Nand Flash Controller Using Product Reed Solomon Code on FPGA Chip**” in IJERA Journal, Vol. 3(2), April-2013. ISSN: 2248-9622.
- Published a Paper entitled “**VLSI implementation of a SBF decoder for LDPC codes**” in International Journal of Computer applications. (IJCA), Vol. 2(1), April-2011.ISSN: 0975-8887(Online), ISBN: 978-93-80746-49-0(online).
- Published a Paper entitled “**VLSI Implementation of Medical Image Fusion Using Haar Transform**” in International Journal of Scientific & Engineering Research. Vol. 3 (9), 2013.
- Published a Paper entitled “**FPGA implementation of medical image fusion based on DWT**” in Int. J. Adv. Res. Computer. Science and Software Eng. Vol. 4(9), April-2011. ISSN: 2229-5518.
- Published a Paper entitled “**FPGA implementation of Pico-Blaze based embedded system**” in International Journal of Computer applications (IJCA), Vol. 2(1), April-2011. ISSN: 0975-8887(Online).

Papers Presented at Conferences:

- Presented a paper entitled” **IOT Multitasking: Design of Smart phone application for systematic execution and scheduling in real time environment**”, 4th MEC International Conference on Big Data and Smart City (ICBDSC), IEEE Explore, 2019.
- Presented a paper entitled “**Computation and Majority Logic Decoding of Binary and Non-Binary Euclidean Geometric LDPC Codes**”, International Conference on Advances in Scientific Computing, IIT Madras, Nov-2016.
- Presented a paper entitled “**Hard decision and soft decoding algorithms of LDPC and comparison of LDPC with Turbo codes RS codes and BCH codes**” at 27th IRF International Conference, Bangalore, 2014.
- Presented a paper entitled “**Distance Analysis and Secure Smart Banking Using Central FPGA**” at NCACSA Organized by MITS, Madanapalle with ISBN: 978-93- 82829-39-3 Under TEQIP Scheme, June, 2013.

- Presented a paper entitled **“VLSI implementation of a SBF decoder for LDPC codes”** International Conference on VLSI communication and instrumentation at SCE, KERALA April 7-9, 2011.
- Presented a paper entitled **“FPGA implementation of Pico-Blaze based embedded system”** International Conference on VLSI communication and instrumentation at SCE, KERALA April 7-9, 2011.
- Presented a paper entitled **“Low-cost Portable Embedded Face Recognition System Based on ARM 9 Processor”** at National conference organized by Department of ECE, AITS, Rajampet. 2011.
- Presented a paper entitled **“An Effective Processor Architecture for Multimedia compression”** International Conference on Emerging Trends in Engg. At VVIET, MYSORE May’2009.
- Presented a paper entitled **“A Processor in Memory Architecture for Multimedia compression”** at National conference organized by VCET, CHENNAI, and Mar 2009.
- Presented a paper entitled **“Wheel Chair Robot”** at TECHNOFEST organized by ASCET, Gudur held on 12TH August’2009.

Workshops attended:

- A One week **ATAL Academy** FDP on **“Natural Language Processing”** Organized by GPREC, Kurnool, during 08.11.2021 to 12.11.2021.
- A One week online FDP on **“Digital VLSI Design and Verification”** Organized by Bangalore Institute of Technology, Bangalore during 23.08.21 to 27.08.21.
- A One week AICTE Sponsored one week online STTP on **“Practical Exposure on Machine Learning and Data Science”** Organized by GPREC, Kurnool, during 26.04.2021 to 01.05.2021.
- A One week AICTE Sponsored Induction Program on **“Python for Image processing and IOT (Phase-I)”** Organized by GIST, PSR Nellore during 23.11.2020 to 28.11.2020.
- A One-week Online FDP on **“Recent Trends in Electronics Industry (RTEI-2020)”** Organized by AITS, Rajampet during 18.05.2020 to 23.05.2020.
- A One week Online FDP on **“Advances in Next Generation Wireless Communications & Networks)”** Organized by GPREC, Kurnool during 27.07.2020 to 31.07.2020.

- A Two week AICTE Sponsored FDP on **“Big Data Analytics and machine learning”** at Nodal Centre AITS Rajampet, Organized by AITS, Rajampet during 18.11.2019 to 30.11.2019.
- A One week AICTE approved short term course on **“MATLAB & LABVIEW with its hardware interface through ICT”** at Nodal Centre AITS Rajampet, Organized by NITTTR, Chandigarh, MHRD during 29.01.2018 to 02.02.2018.
- A Two week AICTE approved FDP (201x) on **“Pedagogy for Online and Blended Teaching-Learning Process”** at Nodal Centre AITS Rajampet, Organized by PMMMNMTT, MHRD, GOI during 14.09.2017 to 12.10.2017.
- A Two week AICTE approved FDP (101x) on **“Foundation Program in ICT for Education”** at Nodal Centre AITS Rajampet, Organized by PMMMNMTT, MHRD, GOI during 03.08.2017 to 07.09.2017.
- A Two week AICTE approved FDP (101x) on **“Foundation Program in ICT for Education”** at Nodal Centre AITS Rajampet, Organized by PMMMNMTT, MHRD, GOI during 03.08.2017 to 07.09.2017.
- Organized A Two week ISTE STTP course on **“CMOS, Mixed Signal and Radio Frequency VLSI Design”** at AITS, Rajampet Organized by NMEICT, MHRD during 30.01.2017 to 04.02.2017.
- A one week ISTE STTP for Coordinators on **“CMOS, Mixed Signal and Radio Frequency VLSI Design”** at IIT, Kharagpur Organized by NMEICT, MHRD during 19.09.2016 to 23.09.2016.
- A One day FDP on **“Implementation of Quality Circles in Educational Institutions”** at AITS Rajampet, Organized by AITS, Rajampet on 23.01.2016.
- A Two day FDP on **“VLSI Design Methodology Using Mentor Graphics Tools”** at AITS Rajampet in Collaboration with Trident Tech. labs Pvt. Ltd. during 27.01.2015 to 28.01.2015.
- A Two day FDP on **“TI Analog System Design by Using ASLK Pro”** at Nodal Centre AITS Rajampet, Organized by TEXAS INSTRUMENTS India University Program during 22.12.2014 to 07.09.2014.

- A Two week work shop on “**Control Systems**” at Nodal Centre AITS Rajampet, Organized by IIT Kharagpur during (02-12)th, December, 2014.
- Participated in **TEXAS INSTRUMENTS Innovation Challenge-India Analog design contest, 2014** held at AITS, Rajampet and it is organized by Cranes software International Limited during 01.03.2014 to 31.03.2014.
- A Two day work shop on “**Layout Design and Use of Cadence Tools**” at ASCET, Gudur, (27-28) April’2013.
- A One day work shop on “**DSP Processors and Digital Watermarking**” at GKCE, SULLURPET, and Dec 2008.
- A Three day work shop on “**Recent Trends in Engineering**” at ASCET, GUDUR, (4- 6) May’2010.
- A Two day work shop on “**Research Methodology in Engineering**” at AITS, Rajampet, (10-11) May’2011.
- A Two day work shop on “**Automation System Technologies and Hardware in-the-Loop Simulation using Open Modelica**” at SVEC, Tirupathi, (19-20), April’2012.

Projects Guided:

1. UG Projects -24 Completed + 03(Ongoing)
2. PG Projects -11

Extra-Curricular Activities:

- Worked as **Additional Controller of Examinations (Evaluation)** of the Institute.
- **Ratified as Associate Professor** in Dept. of ECE from **JNTUA, Anantapur**.
- **Anti-Ragging Disciplinary In-Charge** of the Institute.
- **Board of Studies** Member of the Institute.
- **NBA Coordinator** of the Department.
- Acted as **Work shop Co-Ordinator** organized by **IIT, Kharagpur**.
- **Review member** of **IEEE Access Journal**.
- **Review member** of **SAGE-Concurrent Engineering Journal**.
- **Review member** of **International Journal of Communication Systems Journal (SCI Indexed)**
- **Review member** of **Journal of Electrical Engineering & Technology Journal (SCIE Indexed)**

- **Review member of Computers, Materials and Continua Journal (SCIE Indexed)**
- **Review member of Egyptian Informatics Journal (SCIE Indexed)**
- **Editorial Board Member of Science Journal of Circuits, Systems and Signal Processing (CSSP) Journal, Science PG Group-ISSN: 2326-9073.**
- **Review member for Various International Journals.**
- **Acted as a Co-ordinator for (ATM-13) Organized by AITS, Rajampet.**
- **Acted as Organizing Member for Symposiums organized AITS, Rajampet.**
- **Anti-Ragging Disciplinary Committee member of the Institute.**
- **Acted as Departmental Library in charge.**
- **Acted as Departmental Library In charge for Purchasing of Books.**
- **Team Member in Preparing NBA and NAAC accreditation Files.**
- **Acted as Technical Committee Member for RME-2k11 workshop organized By Dept. of ECE, AITS, Rajampet.**
- **Acted as Review member for (NC'e-TIDES) National conference organized AITS, Rajampet.**
- **Life Member of IAENG Society.**
- **Life Member of MIREN Society.**
- **Member of CSTA.**

Personal details:

Name: Dr. J. Chinna Babu
Father name: J. SIVAIAH
Date of birth: 05-05-1985
Address for Correspondence: D. No: 2-406, OPPOSITE N.T.S Padugupadu (VI),
 KOVUR (MD), SPSR NELLORE (DT)-524137.



(Dr. J. Chinna Babu)