ANNAMACHARYA UNIVERSITY

About Profile

NAME: **Dr. J. Chinna Babu**

DATE OF BIRTH: **05/05/1985**

DESIGNATION: **Associate Professor & Head**

DEPARTMENT: **ECE**

EMAIL ID: **jchinnababu@gmail.com**

DATE OF JOINING: **19/09/2008**

EMPLOYEE ID: AITS041012

Academic Profile

Qualification	Name of the Board/University	YEAR
Ph. D. (E.C.E.)	**JNT University, Anantapur**	2020
M.Tech. (VLSI S D)	**JNT University, Anantapur**	2009
B.Tech. (E.C.E.)	**JNT University, Hyderabad**	2006
Intermediate	**S.N.S.R.M College, Kovur**	2002
S.S.C.	**T.N.C High School, Kovur**	2000

Research Details

1	Areas of Specialization	VLSI System Design, Machine Learning, IoT, Security Communication
2	Number of Publications	**61**
3	Awards Received	**04**
4	Research Guidance:	• No. of Ph.D. Guiding: **04** • No. of M.Tech. Projects Guided: **11** • No. of B.Tech. Projects Guided: **36**
5	Subjects Taught	**Under UG level:** 1. Electronics Devices and Circuits 2. VLSI Design 3. Pulse and Digital Circuits 4. Linear IC Applications Digital IC Applications 5. DSP Processors & Architectures 6. Switching Theory and Logic Design 7. Electronic Circuit Analysis 8. Linear and Digital IC Applications 9. Digital and Data Communications 10. Analog Communication 11. Digital Communication 12. Data Communication Systems 13. Digital Design/Digital Logic Design 14. Analog Electronic Circuits 15. Advanced Digital Design Concepts 16. Analog Circuits 17. Digital IC Design 18. Digital System Design through VHDL **Under PG level:** 1. Algorithms for VLSI Design Automation VLSI Technology & Design 2. Testing & Testability Digital System Design Digital IC Design 3. DSP Processors & Architectures 4. FPGA Architectures & Applications 5. ASIC Design 6. Modern Digital System Design
6	Memberships	1. **MIAENG** 2. **MICATA**

Publication Details:

Title	Publisher / Journal	Published Year
DANNET: deep attention neural network for efficient ear identification in biometrics	Peer J Computer Science Journal	2025

Title	Publisher / Journal	Published Year
Enhancing remote sensing image fusion with deep learning attention fusion residual approach	Discover Applied Sciences Journal	2025
A Dynamic Hybrid Decoder approach using EG-LDPC Codes for Signal processing applications	Wireless Personal Communications - Springer	2021
Local-Ternary-Pattern-Based Associated Histogram Equalization Technique for Cervical Cancer Detection	Diagnostics – MDPI	2023
IoT-Based Intelligent System for Internal Crack Detection in Building Blocks	Journal of Nanomaterials – Hindawi	2022
Smart Contract-Enabled Secure Sharing of Health Data for a Mobile Cloud-Based E-Health System	Applied Sciences - MDPI	2023
Grade Classification of Tumors from Brain Magnetic Resonance Images Using a Deep Learning Technique	Diagnostics – MDPI	2023
Image Noise Removal in Ultrasound Breast Images Based on Hybrid Deep Learning Technique	Sensors – MDPI	2023
Design Optimization of Counter-Flow Double-Pipe Heat Exchanger Using Hybrid Optimization Algorithm	Processes – MDPI	2023
Application of multi agent systems for advanced energy management in cyber physical hybrid microgrid systems	Ain-Shams Engineering Journal	2024
Low-Power VLSI Implementation of Fault-Tolerant Parallel Real FFT Architectures	Processes – MDPI	2023
Health Recommendation System using Deep Learning-based Collaborative Filtering	Heliyon – Elsevier	2023
A hybrid model for lung cancer prediction using patch processing and deep learning on CT images	Multimedia Tools and Applications - Springer	2024
Advances in real time smart monitoring of environmental parameters using IoT and sensors	Heliyon – Elsevier	2024
Edge detection using fast pixel-based matching and contours mapping algorithms	PLOS ONE	2023
Performance optimization for an optimal operating condition for a shell and heat exchanger	PLOS ONE	2024
Detection of COVID-19 Based on Deep Learning Methods: A Critical Review	Studies in Computational Intelligence - Springer	2024

Title	Publisher / Journal	Published Year
Google Appstore Data Classification Using ML Based Naïve's Bayes Algorithm: A Review	Studies in Computational Intelligence - Springer	2024
Improved Radix-4 Fast Fourier Transform Algorithm Used for Wireless Communication	Studies in Computational Intelligence - Springer	2024
Enhancing a Learning Management System's Effectiveness Through NEP-Compliant Curriculum	Lecture Notes on Data Engineering and Communications Technologies – Springer	2024
Detection and classification of COVID-19 using supervised deep learning on MRI images	Int. Journal of Power and Energy Conversion – Inderscience	2024
Influence of performance and emission of diesel engine with alumina catalyst biodiesel using IoT	Int. Journal of Bioinformatics Research and Applications – Inderscience	2023
Accelerated Addition in Resistive Ram Array Using Parallel-Friendly Majority Gates	Studies in Computational Intelligence - Springer	2024
An efficient method for privacy protection in big data analytics using oppositional fruit fly algorithm	Indonesian J. of Electrical Engineering and Computer Science	2025
Deep learning-based attention models for sarcasm detection in text	Int. Journal of Electrical and Computer Engineering	2024
Design and implementation of wireless sprinkler irrigation system with seed sowing	SN Applied Sciences	2023
Multi region minutiae depth value-based efficient forged fingerprint analysis	PLOS ONE	2023
Hybrid optimization for enhanced security of shell and tube heat exchangers	PLOS ONE	2023
Deep learning models for head position prediction on X-ray image for Cephalometric analysis	Intelligent Data Analysis Journal - IOS Press	2023
An automatic diagnostic model for cardiovascular diseases using swarm intelligence	Heliyon – Elsevier	2024
Wireless Sensor Networks with Multi-Criteria Clustering and Bio-Inspired Routing	Applied Sciences - MDPI	2023
Clustered Single-Board Devices with Docker Container Architecture	Computers, Materials & Continua – CMC	2022
Design and Performance of Novel 8T3R NVSRAM Cell	Symmetry – MDPI	2022
A Hybrid Soft Bit Flipping Decoder Algorithm for signal transmission and reception	Telkomnika	2022

Title	Publisher / Journal	Published Year
Melanoma Skin Segmentation Using PCA and Morphological Methods	SCI- Springer	2021
Safety Locker System with Image Identification Using IOT	SCI- Springer	2021
Improved Radix-4 FFT Algorithm for Wireless Communication	SCI- Springer	2021
Outcome Based Education: A Model for Higher Educational Institutions in India	Int. Journal of Continuing Engineering Education and Life-Long Learning	2021
Throughput Comparison of Majority Logic Decoder with Other Decoders	LNEE – Springer	2021
A Review on OTA with Low Power and Low Noise Techniques for Medical Applications	LNEE – Springer	2021
Error Performance of Hybrid Weighted Bit Flipping decoder with EG-LDPC codes	Int. Journal of Advanced Science and Technology	2020
Implementation of Dynamic Decoders Using EG-LDPC Codes	LNEE – Springer	2020
An Intelligent Smart Black Box System for Crash Recovery	Int. Journal of Advanced Science and Technology	2020
Computation of Parity Check Matrices for Binary EG- LDPC Codes	Helix Journal	2019
IOT Multitasking: Smartphone app for real-time scheduling	IEEE ICBDSC Conference Proceedings	2019
Comparison of Decoding Algorithms for EG-LDPC Codes	Lecture Notes in Electrical Engineering - Springer	2017
VLSI Implementation of Decoding algorithms for EG-LDPC Codes	Elsevier Procedia	2017
Generation and Decoding of Non-Binary LDPC Codes using MSA	Lecture Notes in Electrical Engineering - Springer	2017
Comparison of technologies for SBF decoder for geometric LDPC codes	INDJST Journal	2016

Patent Details

S. No.	Title of Patent	Submitted/Published /Awarded
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	**Published**
2	**Patent Application No**: 201941053591 A **Publication date:** 18/09/2020 **Title of the Invention**: An efficient Arithmetic VLSI architecture for DWPT error approximation	**Published**
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	**Published**