**ANNAMACHARYA UNIVERSITY FACULTY DETAILS FOR WEBSITE**

**About Profile**





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

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

DESIGNATION: **Associate Professor**

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**

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| --- | --- | --- |
| **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 |
| 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 |
| 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 |
| 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** |