



Dr. Gannera Mamatha M.Tech, Ph.D

Assistant Professor in Electronic & Communications engineering,
IEEE Senior Member
Jawaharlal Technological University Anantapur College of Engineering,
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Ongoing Funded projects / grants

- Science and Engineering Research Board (SERB) has sanctioned a total cost of Rs. 21,25,520/- (Rs. Twenty One Lakh Twenty Five Thousand Five Hundred and Twenty Only) to Dr.G.Mamatha as Principal Investigator for the research project titled "Implementation of IoT Security Solutions for Health Care Monitoring Systems" for a duration of 24 months (2019-21).

Ph.D students:

- H.Devanna
Title: Analysis and application of modified non subsample contour let transform (NSCT)
Status: Completed
- T.Prahlad Reddy
Title: Cryptography Solution for Security of Context aware IoT Devices.
Status: ongoing
- G.Suneel Kumar
Title: performance evaluation of AL2O3 based on re RAMS
Status: ongoing
- P.Durga Devi
Title: Agricultural neural network model development for water quality assessment using satellite images
Status: ongoing
- Venkataramana Palem
Title: Design and Development of Low Cost and compact Multifunction RADAR
Status: ongoing

Education:

Ph.D, Electronics and communications Engineering, " Implementation Of High Speed Dwt Based Satellite Image Fusion Algorithms On Re-Configurable Hardware", JNTU University, Anantapuramu, 2015M.Tech., Digital Systems and Computer Engineering, JNTU University, ,2006, B.Tech., Electronics and Communication Engineering, Nagarjuna University, Guntur, 2000

Professional Profile:

Having 18 years of Professional and Academic Experience in Teaching and Research, expertise in the area of Embedded and VLSI systems and active participation in student development activities.

Publications:

- "Implementation of security algorithm using light weight block cipher in IOT application Dr.G.Mamatha, Mr.Ramasetu have been published in Pensee Journal, ISSN: 0031-4773 VOLUME 51 ISSUE 03 – 2021
- S.Kishore Kumar, Dr.G.Mamatha Neural Network Based Plant Leaf Disease Detection 2021 IJCRT (International Journal of Creative Research Thoughts) | Volume 9, Issue 4 April 2021 | ISSN: 2320-2882
- P.Sumanth Raju, Dr.G.Mamatha Implementation of 10T SRAM cell on comparison of power dissipation with 7TSRAM cell Solid State Technology Volume:63 Issue:6 year 2020
- Y Lathasree Dr G Mamatha Preparation of Quality Data for Air Pollution Forecasting 2019 IJSRST | Volume 6 | Issue 5 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X Themed Section: Science and Technology DOI : <https://doi.org/10.32628/IJSRST196511> IJSRST196511 | Received 02 Sep 2019 | Accepted : 21 Sep 2019 | September-October-2019
- H.Devanna G.A.E. Satish Kumar, G.Mamatha Evaluation of Quality Parameters for Medical Image Fusion IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-2834,p- ISSN: 2278-8735.Volume 14, Issue 2, Ser. II (Mar.-Apr. 2019), PP 22-29 www.iosrjournals.org DOI: 10.9790/2834-1402022229
- Kothapalli Bannoth Pranaya, Dr.G.Mamatha Carry/Borrow Brent Kung Adder/Subtractor using Reversible Logic Gates, JASC: Journal of Applied Science and Computations ISSN NO: 1076-5131. Volume VI, Issue VI, JUNE/2019, PgNo: 2133-2138.
- Design of Low Power PISO & PIPO Shift Registers using Lector Technique in 50nm Technology”, International journal of control theory and applications, ISSN: 0974-5572 International Science Press, Volume 10, Number6, 2017

- Morphological Component Analysis to Enhance Textures of an Image International Journal of Engineering Technology Science and Research IJETSRS, ISSN 2394 – 3386, Volume 4, Issue 8, August 2017
- SAR Images Speckle Reduction Base on Component Splitting", International journal of advanced technology and innovative research, Vol.07,Issue.07,July-2015, ISBN 2348–2370.
- FPGA Implementation of High Speed Area Efficient Lifting Scheme based DWT Architecture for Image Fusion” pp. 100-113. European Journal of Scientific Research, Vol. 129 No 2 February, 2015, 1563-0854
- Evaluation of DWT based image fusion with three different resembling methods pp. 10-14 International Advanced Research Journal in Science, Engineering and Technology (IARJSET), Vol. 2, Issue 2, February 2015, 2393-8021
- DWT Based PAN-Sharpener OF Low Resolution Multispectral Satellite Images,pp.25-32 Research Papers, i-manager’s Journal on Image Processing, Vol. 1 · No. 2 · April - June 2014, 2349-4530
- An image fusion using wavelet and Curve let Transforms, pp. 69-73. Global Journal of Advanced Engineering Technologies, Vol. 1, Issue-2, 2012, 2277-6370
- Feature-Level Multi-focus Image Fusion using Neural Network and Image Enhancement”pp. 17-24. Global Journal of Computer Science and Technology, Volume 12 Issue 10 Version1.0 June 2012
- Implementation of 32 Bit MIPS Processor with SHARC Architecture,pp. 62-65. International Journal of Electronics & Communication Technology (IJECT), Vol. 2, SP-1, Dec. 2011, 2230-7109
- Design of Remote I/O data acquisition system with Zigbee, pp. 73-77, International Journal of Electrical and Electronics Engineering, Volume-I, Issue-II, 2011, 2231–5284.

CONFERENCES:

- Detection of Land Use And Land Cover Changes Using Remote Sensing And Geographical Information System (GIS) Techniques” of 15th IRF International Conference, 23rd October, 2016, Hyderabad, India, ISBN: 978-93-86291-16-5
- FPGA implementation of satellite image fusion using wavelet substitution method, SAI Intelligent Systems Conference 2015 (IntelliSys 2015), Organized by The Science and Information Organization United Kingdom
- An efficient hardware implementation for image fusion using lifting scheme 2-D DWT, Intellect base International Consortium Atlanta USA 2013 Organized by Intellect base International Consortium US

- “An Efficient architecture for 3-D lifting based discrete wavelet transform” Proc. Of National Conference on Emerging Trends in Electronics, JNTU College of Engineering, Anantapur, India, 28th march 2012.
- “Design of a bridge between OCP and AHB protocols in SOC integration” rocs. Of the international Conference on on Demand Computing Oxford College of Engineering, Bangalore,
- “Automatic Object Searching System Based On Real Time SIFT Algorithm” 2010 IEEE International conference on Communication Control and Computing Technologies (ICCCCT , St. Xavier’s Catholic College of Engineering KanyaKumari, 7th – 9th Oct 2010
- “Lossless Steganography for AMBTC True Color Compressed Images” Procs. of 1st International Conference – 2010, Guru Nanak Engineering College, Hyderabad, 11th – 13th Jun 2010
- “Design and Construction of Efficient Solar Sun Tracking System” Procs. of international Conference on Computational Intelligence & Applications (ICCIA-10), Sandip Institute of Technology & Research Centre, Nasik, (Maharashtra), 3rd – 5th Mar 2010
- "Design and Implementation of the RC4 Stream Cipher Using VHDL" International Conference on Quantitative Methods Operations and Information Technology (ICQMOIT-2008), IBS, Hyderabad, 24th and 25th Oct 2008
- "Wigner-Ville Distribution Algo For Identification Of Intrapulse Modulated Signals from LPI Radar" National Conference on Algorithms (NCA - 2008), Fr. Conceicao Rodrigues College of Engineering, Mumbai, 16th and 17th May 2008
- "Modified Trace Back Architecture for the Viterbi Decoder" 4th National Conference on Signals, Systems and Communication (NCSSC '08), College of Engineering Guindy Campus, Anna University Chennai, 8th and 9th May 2008
- "Generation of Polyphase RF Signals using MATLAB" IETE Conference on RF & Wireless (Icon RFW-08), IETE Bangalore Centre, 24th – 26th Apr 2008
- "FPGA Implementation of Triple Data Encryption and Decryption Standard" International Conference on RF and Signal Processing Systems (RSPS-2008), KoneruLakshmaiah College of Engineering, Guntur, 1st and 2nd Feb 2008

Awards

- Andhra Pradesh ISTE Visalamma Krishna Reddy Memorable Award for “ Best Women Engineering Teacher Award 2019”
- Award of Outstanding Women in Engineering for the contribution and achievement in the field of Electronics and Communication from centre for Advanced Research and Design Venus International foundation India in the year 2018.
- Award of Industry Application Society IEEE Student branch Chair in the year 2020 by IEEE

- IEEE Senior Member in the year 2019 by IEEE
- Dr. G Mamatha conferred upon the award Exceptional Contribution in Smart India Hackathon in the year 30-31 March 2018 by MHRD & AICTE.
- Dr. G Mamatha conferred upon the award of Session chair in the year 2017 by Sri Venkateswara University College of Engineering Thirupathi.
- Dr. G Mamatha conferred upon the award of IRAJ Excellent Paper Award in the year 2016 by IRAJ Research Forum.

Academic and Administrative Experience

2019-Present	IEEE ATPSS - WiEAG – ECM Secretary - Cum – Treasurer
2019-Present	IEEE Industry Application Society student branch chapter chair
2016-2018	IEEE Student Branch Counselor, JNTUACEA, Ananthapuramu
2015-2018	ECHO faculty advisor, ECE Department, JNTUACEA, Ananthapuramu
2013-2015	Joint Secretary, Teaching Staff Association, JNTUACEA, Ananthapuramu
2012-2013	Treasurer, Teaching Staff Association, JNTUACEA, Ananthapuramu
2011-2013	Deputy Warden, Women Hostel, JNTUACEA, Ananthapuramu

Completed FDP / Seminars/Workshops/Chairmanships at national

- 2 Weeks Instructor Led Live Online Faculty Development Program On Internet of Things (IOT) Using Amazon AWS held during 17th - 28th May 2021 Organized by Finland Labs (A Unit of Revert Technology Pvt. Ltd.)
- One-week online FDP on “Renewable and Clean Energy Conversion Technologies and Materials” from 04th -08th January, 2021 conducted by JNTUA CE Anantapur.
- Online Refresher Course on ‘Engineering & Technology’ to be organized by the UGC Human Resource Development Centre, Mizoram University during 1st – 14th December, 2020
- AICTE Sponsored Two-Week Online Faculty Development Programme on Opportunities in Artificial Intelligence and Enabling Technologies for Internet of Things (IoT)" from 17th-28th November 2020 conducted by JNTUA College of Engineering, Anantapur.
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- AICTE Training and Learning (ATAL) Academy Online FDP on Developing Consciousness (Transcendental Meditation) from 22nd - 26th September 2020 at JNTUA Ananthapuramu.

- Two-week Online Faculty Development Programme on “ICT Tools for Teaching, Learning Process and Institute” jointly organized by Electronics and ICT Academies held from 10th - 21st August, 2020 under the “Scheme of financial assistance for setting up of Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India.

- One Week Online FDP on "Future Nano Electronic Devices & Circuits" during 6th -10th July 2020, organized by Department of ECE, MGIT, Hyderabad.

- 3-Day FDP on “Recent Trends in Wireless Communication Technologies” organized by Department of ECE, Bangalore Institute of Technology in association with IMAPS India from 3rd - 5th August 2020.

- Programme on Leadership and Organization Development for Women Scientists / Technologists, from October 8th - 12th, 2018, at the Centre for Organization Development (COD), Hyderabad.

- Programme on Right to Information Act 2005, Case Studies/ Court Cases and Improvement Record Management System, held on 21st -23rd July, 2018, at Ley, Ladakh. Organized by National Council For Training & Social Research (NCTSR), New Delhi.

- FDP on “Achieving Excellence in Engineering Education” organized by ESCI, The Institution of Engineers (India),at Shimla(H.P) during 24-28 May 2018.

- Short Term Course on “Advanced Optimization Techniques for Engineering applications” organized by NIT, Kurukshetra during 13th - 17th January, 2018.

- A Six day Faculty Development Program on Recent Advancements in Xilinx & ASIC Designs from 16-21 December-2017 in association with Electronics & ICT academy, NIT Warangal.

- UGC Sponsored Three week Orientation programme from 25.01.2016 to 20.02.2016 at Sri Venkateswara University, Tirupati.

- Complimentary training/orientation program on MATLAB, Simulink & Related Tool Boxes for Engineering Education Conducted by JNTUA College of Engineering Ananthapuramu in association with CARPICOT Technologies Pvt. Ltd. On 7th October, 2015.

- Technical Session, Chair, Two day National Level Students Technical Symposium, eMerge’13 Organized by JNTUACEA

- Faculty Workshop on EMBEDDED SYSTEMS, 5th October 2012, Pearson Education

- National Conference on “Emerging Trends in Electronics & Communication Engg,Nc-eMerge’12, 23rd &24th Feb., 2012, 2 days.
- QIP Short term course-Principles & Applications of Satellite Image Processing Organized by IIT Bombay
- Faculty Development Program on Entrepreneurship Organized by JNTUACEA
- Short term training program Organized by C-DAC, Bangalore
- Faculty Workshop on EMBEDDED SYSTEMS, 5th October 2012, Pearson Education
- National Conference on “Emerging Trends in Electronics & Communication Engg,Nc-eMerge’12, 23rd &24th Feb., 2012, 2 days,
- Technical Session, Chair, Two day National Level Students Technical Symposium eMerge’12 Organized by JNTUACEA
- SYSTEMS, Dec 23rd, 2011, in association with Austria micro systems Hyderabad. Seminar on Design aspects of VLSI and EMBEDDED

Organized Conferences/Seminars/Workshops

- Two Day Workshop on IoT: Firmware & Hardware Design and Development Sponsored by TEQIP-III in collaboration with openpower foundation and TAGV Embedded Solutions from 26th & 27th March 2021
- Organized One Day Webinar on National Educational Policy 2020 for Faculty and Students, Sponsored by TEQIP-III, on 19th September 2020
- Organized two day online workshop on VLSI Circuits analog and digital design perspectives in collaboration AMS Semiconductors Hyderabad & HCL Technologies Hyderabad from 16th - 17th may,2020
- Three-day workshop on ”Design and Layout Considerations of Mixed Signal IC” during 25th - 27th July 2019 in association with AMS Semiconductors India PVT Ltd., and WnP Technologies, Hyderabad under TEQIP III
- A Three-day Faculty development programme (FDP) on Machine Learning and Deep Learning using MATLAB from 11th - 13th March 2019 in association with Capricot Technologies Private Limited (Math works) and TEQIP III.
- One day workshop on “Educational challenges and Rights of Women in Society” on 24th February 2018 under IEEE student chapter JNTUACEA
- Four day National Level Students’ Technical Symposium (E-Merge ’18) from 9 – 12 March 2018 in association with Smart Bridge solutions Hyderabad under TEQIP III.
- Ten day Faculty Development Programme on Embedded Real Time Systems funded by E&ICT Academy-NIT-Warangal from 1-2-2017 to 10-2-2017 at JNTUACEA, Ananthapuramu which is sponsored by Ministry of Electronics and Information Technology (MeitY), Govt.of India
- Three Day Career awareness Program titled “Internet of Things (IoT) – 2017” in association with Orange Research Labs (ORL) Industries on 29 -31st of August for UG students of JNTUACEA.

- National Level Students' Technical Symposium, e-MERGE'16, from 17th - 18th March 2016 in collaboration with Texas Instruments Bangalore.
- One day career awareness program on 'Electronics System Design Manufacturing (ESDM) growth in India and Opportunities for Young Graduates' on 4th October 2016 in association with IEEE student branch. 300 students from various colleges have participated in the program.

Outside Country Participation:

- G. Mamatha, Shaik Ahmad "Reversible Data Hiding Based on Integer Wavelet Transforms and Prediction Error Expansion" 5th Annual Conference on Computational Science & Computational Intelligence (CSCI-18) | Dec 13-15, 2018 | Las Vegas, Nevada, USA.
- FPGA implementation of satellite image fusion using wavelet substitution method, SAI Intelligent Systems Conference 2015 (IntelliSys 2015), Organized by The Science and Information Organization United Kingdom
- International conference on an efficient hardware implementation for image fusion using lifting scheme 2-D DWT in Intellect base International Consortium Atlanta USA 17-10-2013 to 19-10-2013.

Outside world Interaction:

- Acted as REVIEWER for Springer Third International Conference on Emerging Trends in Electrical, Communication and Information Technologies- 2018(ICECIT-2018) during 20-22 December, 2018 at SRIT Ananthapuramu, AP, India.
- Visited Industry to attend two day workshop on Analog IC Design – Concept to Reality Joint Chapter of Circuits and Systems and Electron Devices Societies (CAS/EDS) and AMS Semiconductors India Pvt. Ltd – Hyderabad at AMS Semiconductors, Hyderabad.
- Acted as Judge for 'Smart India Hackthon,2018' Grand Finale on 30th and 31st March 2018 organized by MHRD, AICTE, PERSISTANT,i4c,Rambhu Mhalgi Prabhodhini.
- AICTE nominee as expert for visiting Government Institute of Electronics Secunderabad, Telangana state on 5th April 2016, for verification of purchased equipment with the grant of AICTE.

Text Books Authored:

- Land use and land cover change detection using GIS Techniques published by LAP LAMBERT Academic Publisher ISBN:978-620-2-68183-4.
- Analysis and Applications of Non Subsampled Contourlet Transform published by LAP LAMBERT Academic Publisher ISBN: 978-3-330-01137-3.

Professional Societies Membership:

Active participation as IEEE Senior Member

Chair of Student Branch in Industry Application Society (IAS)

Member in OpenPOWER Foundation

IEI Local Committee member

ISTE Life Member