



Prof G. Umamaheswara Reddy

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Expertise

Telecommunications

Prof. G. Umamaheswara Reddy is working as Professor in the Department of ECE, Sri Venkateswara University College of Engineering, Sri Venkateswara University, Tirupati, Andhra Pradesh. At present he was Head, Department of Electronics and Communication Engineering from 03rd February, 2022. He had more than 27 years experience in Teaching and also published 53 technical papers in International/ National Journals & Conferences and his research areas includes Signal Processing, VLSI Design etc.

Work experience

1. S.V.U. College of Engineering, Tirupati 2013 — Present

Professor
Chittoor

2. S.V.U. College of Engineering, Tirupati 2000 — 2013

Associate Professor
Chittoor

3. Sree Kalahastheeswara Institute of Technology, Sreekalahasti 1996 — 2000

Assistant Professor
Chittoor

Education

1. PhD - 2013

Sri Venkateswara University, Tirupati

2. M.Tech - 1995

Sri Venkateswara University, Tirupati

3. B.Tech - 1992

Sri Venkateswara University, Tirupati

Honours and Awards

1. appreciation from NPTEL-SWAYAM as SPOC, SWAYAM – NPTEL Local Chapter (LC ID 3297), and rated as AA based on Performance in NPTEL online courses - 2023

NPTEL

2. appreciation from NPTEL-SWAYAM as SPOC, SWAYAM – NPTEL Local Chapter (LC ID 3297), and rated as AA based on Performance in NPTEL online courses - 2022

NPTEL

3. appreciation from NPTEL-SWAYAM as SPOC, SWAYAM – NPTEL Local Chapter (LC ID 3297), and rated as AA based on Performance in NPTEL online courses - 2021

NPTEL

4. appreciation is awarded to G. UMAMAHESWARA REDDY for his/her efforts in disseminating and supporting the learners of the Swayam NPTEL Local Chapter SRI VENKATESWARA UNIVERSITY COLLEGE OF ENGINEERING, as a Single Point of Contact (SPOC) during the Jan-Apr 2020 semester. The support provided by the SPOC was critical in ensuring a smooth completion of the various academic activities in the COVID-19 impacted semester. - 2020

NPTEL

5. appreciation from NPTEL-SWAYAM as SPOC, SWAYAM – NPTEL Local

Chapter (LC ID 3297), and rated as AA based on Performance in NPTEL online courses - 2020

NPTEL-SWAYAM as SPOC, SWAYAM - NPTEL Local Chapter (LC ID 3297)

Research Project

Aakash Project

Role: Team Leader

Year 2012, Amount 672100

Membership In Professional Bodies

1. The Institution of Engineers (IEI) , India, 2021
Fellow F-1276596
2. Biomedical Engineering Society of India (BMESI) , 2010
Life Member L- 814
3. Indian Society for Technical Education (ISTE) , 2001
Life member LM -28821

Membership In Committees

1. APECET, 2023
Admission Committee Member
2. Malla Reddy University, 2023
Member of Academic Council
3. Sreenivasa Institute of Technology and Management Studies (SITAMS), Chittoor, 2023
Board of Studies - Member
4. Jawaharlal Nehru Technological University Hyderabad, 2022
Board of Studies Member

5. Siddhartha Institute of Engineering & Technology (Autonomous), Puttur., 2021
Board of Studies
6. Chadalawada Ramanamma Engineering College (Autonomous), Tirupati., 2020
Board of Studies
7. Yogi Vemana University, Kadapa, 2019
Board of Studies
8. Sri Venkateswara University, Tirupati. , 2016
Board of Studies

Publication

1. Delay-Efficient Vedic Multiplier Design Using 4:3 Counter for Complex Multiplication

Venkata Subbaiah, M., G. Umamaheswara Reddy
Lecture Notes in Electrical Engineering, Volume 977, Year 2023, Pages 735-746

2. Delay-efficient 4:3 counter design using two-bit reordering circuit for high-speed Wallace tree multiplier

Madaka Venkata Subbaiah, Galiveeti Umamaheswara Reddy
International Journal of Electrical and Computer Engineering, Volume 13, Year 2023, Pages 1367-1378

3. Design and modeling of novel TSV for ternary logic applications

Katepogu Rajkumar, G Umamaheswara Reddy
Materials Today: Proceedings, Volume , Year 2023

4. Performance comparison between copper and carbon nanotube based TSV for 3D-integrated circuits

Katepogu Rajkumara, * and G. Umamaheswara Reddy, **
Materials Today: Proceedings, Volume , Year 2023

5. Impacts of cement industry air pollutants on the environment and satellite data applications for air quality monitoring and management

Venkata Sudhakar C.;Umamaheswara Reddy G.
Environmental Monitoring and Assessment, Volume 195, Year 2023

6. Pseudo-Resistor based Low-Power Differential Voltage Comparator

Reddy S.S.;Reddy G.U.
2023 International Conference on Artificial Intelligence and Applications, ICAIA 2023 and Alliance Technology Conference, ATCON-1 2023 - Proceeding, Volume , Year 2023

7. **Performance analysis of Cu-MWCNT bundled HCTSVs using ternary logic**
Katepogu Rajkumar, G.Umamaheswara Reddy
e-Prime - Advances in Electrical Engineering, Electronics and Energy , Volume , Year 2023, Pages
8. **Machine Learning based Stress Detection using Multimodal Physical Data**
Nuthaki Bhargavi, G. Umamaheswara Reddy
International Journal of Emerging Technologies and Innovative Research (www.jetir.org), Volume , Year 2022, Pages
9. **Design of Cu-MWCNT Based Heterogeneous Coaxial through Silicon Vias for High-Speed VLSI Applications**
Katepogu Rajkumar, G. Umamaheswara Reddy
Russian Microelectronics , Volume , Year 2022, Pages
10. **A Novel Low Power Digital-Based Analog Voltage Comparator Circuit**
Sasidhar Reddy, S., G. Umamaheswara Reddy
6th IEEE International Conference on Computational System and Information Technology for Sustainable Solutions, CSITSS 2022, Volume , Year 2022
11. **Limestone mining area mapping and assessment at the Cement Industrial area using Spectral Index and Machine Learning Algorithms**
ResearchSquare, Year 2022
12. **Delineation and evaluation of the captive limestone mining area change and its influence on the environment using multispectral satellite images for industrial long-term sustainability**
Cleaner Engineering and Technology, Volume 10, Year 2022
13. **Land use Land cover change Assessment at Cement Industrial area using Landsat data-hybrid classification in part of YSR Kadapa District, Andhra Pradesh, India**
International Journal of Intelligent Systems and Applications in Engineering, Volume 10, Year 2022, Pages 75-86
14. **In situ measurement and management of soil, air, noise and water pollution in and around the Limestone mining area of Yerraguntla, YSR kadapa, Andhra Pradesh, India for the sustainable development**
Journal of Applied and Natural Science, Volume 14, Year 2022, Pages 746-761
15. **Satellite Image Based Spatio-Temporal Variation Assessment in Captive Limestone Mines for Long-Term Viability**
Journal of Mobile Multimedia, Volume 18, Year 2022, Pages 635-660
16. **Delineation of the Captive Limestone Mine Boundaries Using Multispectral Satellite Images Through the Use of NDVI and Google Earth Image Template Matching**
C. Venkata Sudhakar
International Conference on Innovative Computing & Communication (ICICC) 2022, Year 2022
17. **Design of Delay-Efficient Carry-Save Multiplier by Structural**

Decomposition of Conventional Carry-Save Multiplier

Venkata Subbaiah, M., and G. Umamaheswara Reddy

Smart Innovation, Systems and Technologies, Volume 289, Year 2022, Pages 435-447

18. Early Detection of Parkinson's Disease based on Ensemble Models

M. Jyothirmayee, G. Umamaheswara Reddy

International Journal of Emerging Technologies and Innovative Research (www.jetir.org UGC and ISSN Approved), Volume , Year 2022, Pages

19. Low-power sector-based transition reduction bus encoding technique in soc interconnects

Chintaiah N.;Reddy G.U.

International Journal of Computer Aided Engineering and Technology, Volume 15, Year 2021, Pages 281-293

20. Image classification using higher-order statistics-based ICA for NOAA multispectral satellite image

T. Venkatakrishnamoorthy, Dr. G. Umamaheswara Reddy

International Journal of Advanced Intelligence Paradigms, Volume 17, Year 2020, Pages 178-191

21. Survey on enhancement of remote sensing administrative data in Nellore district

Suchitra N.;Umamaheswara Reddy G.

International Journal of Advanced Science and Technology, Volume 29, Year 2020, Pages 914-921

22. Optimized power control using adaptive bus encoding technique in data transmission

N. Chintaiah ., G. Umamaheswara Reddy .,

Computers and Electrical Engineering, Volume 78, Year 2019, Pages 463-471

23. FPGA implementation of coding for minimizing delay and power in SOC interconnects

N. Chintaiah ., G. Umamaheswara Reddy .,

Advances in Intelligent Systems and Computing, Volume 898, Year 2019, Pages 427-435

24. Noise identification and removal by using higher order statistics and ICA Transformation for satellite images

Venkatakrishnamoorthy T.;Umamaheswara Reddy G.

Proceedings of the 3rd International Conference on Computing Methodologies and Communication, ICCMC 2019, Volume , Year 2019, Pages 162-166

25. Cloud enhancement of NOAA multispectral images by using independent component analysis and principal component analysis for sustainable systems

Venkatakrishnamoorthy T.;Reddy G.U.

Computers and Electrical Engineering, Volume 74, Year 2019, Pages 35-46

26. FPGA Implementation of optimized reversible linear feedback shift registers

Rajesh K.;Reddy G.U.

Proceedings of the International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud), I-SMAC 2018, Volume , Year 2019, Pages 200-203

27. **Cloud separation of a NOAA multispectral cyclone image using ICA transformation**

Venkatakrishnamoorthy T.;Umamaheswara Reddy G.

Lecture Notes on Data Engineering and Communications Technologies, Volume 28, Year 2019, Pages 67-76

28. **FPGA Implementation of Multiplier-Accumulator Unit using Vedic multiplier and Reversible gates**

Rajesh K.;Reddy G.U.

Proceedings of the 3rd International Conference on Inventive Systems and Control, ICISC 2019, Volume , Year 2019, Pages 467-471

29. **Impact of speckle filtering on the decomposition and classification of fully polarimetric RADARSAT-2 data**

Medasani S.;Umamaheswara Reddy G.

Lecture Notes in Computational Vision and Biomechanics, Volume 30, Year 2019, Pages 189-201

30. **Land use/land cover change assessment of Ysr Kadapa District, Andhra Pradesh, India using IRS resourcesat-1/2 LISS III multi-temporal open source data**

International Journal of Recent Technology and Engineering, Volume 8, Year 2019, Pages 8139-8151

31. **FPGA implementation of encryption and decryption of a message using optimized reconfigurable reversible gate**

K. Rajesh, Dr. G. Umamaheswara Reddy

International Journal of Recent Technology and Engineering, Volume 8, Year 2019, Pages 1654-1658

32. **Device-To-Device Clustering For Multicast Communications by Increasing Cluster Size**

M. Venkata Nagarjuna and Prof. G. Umamaheswara Reddy

International Journal of Research and Analytical Reviews, Volume , Year 2019, Pages

33. **Land use/ Land Cover Change Assessment of YSR Kadapa District, Andhra Pradesh, India using IRS Resourcesat-1/2 LISS III Multi-Temporal Open Source Data**

C. Venkata Sudhakar, G. Umamaheswara Reddy

International Journal of Recent Technology and Engineering (IJRTE), Volume , Year 2019, Pages

34. **Satellite Image Classification using Dense Networks**

K. Navya, Dr. G. Umamaheswara Reddy

International Journal of Engineering Research & Technology (IJERT), Volume , Year 2019, Pages

35. **A Novel of Pansharpening using the DCSTFN**

V. Sruthi, Dr. G. Umamaheswara Reddy

International Journal of Engineering Research & Technology (IJERT), Volume , Year 2019, Pages

36. **Speckle Filtering and its Influence on the Decomposition and Classification of Hybrid Polarimetric Data of RISAT-1**
Sivasubramanyam Medasani and Dr. G. Umamaheswara Reddy
Remote Sensing Applications: Society and Environment, Volume 10, Year 2018, Pages 1-6
37. **Fusion Enhancement of Multispectral satellite images using Higher order Statistics**
T.Venkata Krishnamoorthy, Dr. G. Umamaheswara Reddy
Asian Journal of Scientific Research, Volume , Year 2018, Pages
38. **cloud identification method using hos based ica for Multispectral NOAA image**
T. Venkatakrishnamoorthy, Dr. G. Umamaheswara Reddy
i-manager's Journal on Future Engineering & Technology, Volume , Year 2018, Pages
39. **Denoising technique for speed signal using orthogonal wavelets**
Alachenchiah, Dr. G. Umamaheswara Reddy
international journal of research in electronics and computer engineering (IJRECE), Volume , Year 2018, Pages
40. **Low power bus encoding schemes to minimization of crosstalk in VLSI Interconnects**
N.Chintaiah, Dr. G Umamaheswara Reddy
International Journal of Engineering and Technology (IJET) , Volume , Year 2018, Pages
41. **Fibonacci Series Based Transition Reduction Dynamic Sector CODEC Design**
N. Chintaiah ., G. Umamaheswara Reddy .,
Proceedings of the 2nd International Conference on Computing Methodologies and Communication, ICCMC 2018, Volume , Year 2018, Pages 596-600
42. **Analysis and Evaluation of Speckle Filters by Using Polarimetric Synthetic Aperture Radar Data Through Local Statistics**
Medasani S.;Reddy G.U.
Proceedings of the 2nd International Conference on Electronics, Communication and Aerospace Technology, ICECA 2018, Volume , Year 2018, Pages 169-174
43. **Feature preserving reliable estimate of the polarimetric coherency matrix using IDAN-LLMMSE technique**
Medasani S.;Reddy G.U.
Proceedings of the 2nd International Conference on Communication and Electronics Systems, ICCES 2017, Volume 2018-January, Year 2018, Pages 965-970
44. **Fusion enhancement of multispectral satellite image by using higher order statistics**
Venkata Krishnamoorthy T.;Umamaheswara Reddy G.
Asian Journal of Scientific Research, Volume 11, Year 2018, Pages 162-168
45. **Noise detection Using Higher Order Statistical Method for Satellite Images**

T. Venkatakrishnamoorthy, Dr. G. Umamaheswara Reddy
International Journal of Electronics Engineering Research, Volume , Year 2017, Pages

46. Novel Tone Mapping Operators And Objectives Analysis

Kurva ramanjaneyulu, Dr. G. Umamaheswara Reddy
International Journal Of Recent Trends in Engineering and Research (IJRTER), Volume , Year 2017, Pages

47. Analysis and evaluation of speckle filters for polarimetric synthetic aperture radar (PolSAR) data

Sivasubramanyam Medasani and Dr. G. Umamaheswara Reddy
International Journal of Applied Engineering Research, Volume 12, Year 2017, Pages 4916-4927

48. FPGA implementation of ripple carry and carry look ahead adders using reversible logic gates

K. Rajesh, Dr. G. Umamaheswara Reddy
International Journal of Applied Engineering Research, Volume 12, Year 2017, Pages 3665-3670

49. FPGA Implementation of Reversible High-speed Carry skip adder and carry skip BCD adder

K. Rajesh, Dr. G. Umamaheswara Reddy
I-manager's Journal on Circuits and Systems, Volume , Year 2017, Pages

50. Classification and Evaluation of Transition Reduction Data Encoding Techniques for Low Power SOC/NOC Interconnects

Chintaiah, N and Reddy, G Umamaheswara
i-Manager 's Journal on Embedded Systems, Volume 6, Year 2017, Pages 35

51. Higher order statistics for multispectral satellite data

Krishnamoorthy T.V.;Reddy G.U.M.
Proceedings - 7th IEEE International Advanced Computing Conference, IACC 2017, Volume , Year 2017, Pages 216-219

52. Design and Simulation of Micro Strip Patch Antennas

Anil kumar, Dr. G. Umamaheswara Reddy
International Journal of Recent and Innovation Trends in Computing and Communication, Volume , Year 2016, Pages

53. Implementation of FPNN for the Classification of Brain Tumor

R.Anand, Dr.G.Umaheswara Reddy
International Journal of Innovative Research in Computer and Communication Engineering, Volume , Year 2016, Pages

54. Implementation of Voice over IP on Wi-Fi Back Bone

Dr. G. Umamaheshwara Reddy, R. Glory Johanna
International Journal of Innovative Research in Computer and Communication Engineering, Volume , Year 2016, Pages

55. A Novel Approach for Lung Cancer Detection Using Morphological Operations

Gangireddy Hemanth Kumar, Dr. G. Umamaheswara Reddy
International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE),
Volume , Year 2016, Pages

56. **Adaptive Document Image Binarization for Degraded Document Images**

P. BhanuPriya, G. Umamaheswara Reddy
International Journal of Advanced Technology and Innovative Research, Volume , Year 2015, Pages

57. **MATLAB Based GUI for Arrhythmia Detection Using Wavelet Transform**

P. KeerthiPriya, Dr. G. Umamaheswara Reddy
International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering,
Volume , Year 2015, Pages

58. **trial Electrical Action Finding by Using ECG Lead Signals**

B. Madan Mohan, Dr. G. Umamaheswara Reddy
International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering,
Volume , Year 2015, Pages

59. **Content Based Image Retrieval using HSV Color, Shape and GLCM Texture**

Cheruvu Mahammad Ibraheem, Dr. G. Umamaheswara Reddy
International Journal of Advanced Research in Computer and Communication Engineering, Volume , Year 2015, Pages

60. **Fast Weighted Guided Image Filter**

Seella Krishnaveni, Dr. G. Umamaheswara Reddy
International Journal of Advanced Research in Computer and Communication Engineering, Volume , Year 2015, Pages

61. **Image Compression Based on L1 Minimization and Sparse Methodology**

G. Praveen Kumar, Dr. G. Umamaheswara Reddy
International Journal of Innovative Technologies (IJIT), Volume , Year 2015, Pages

62. **Removal of Baseline Wandering in ECG Signals using Singular value Decomposition**

T. Dhanaraj, G. Umamaheswara Reddy
International Journal of Engineering Research and Applications (IJERA), Volume , Year 2012, Pages

63. **Removal of Electrode Motion Artifact in ECG Signals using Wavelet Based Threshold methods with Grey Incidence Degree**

G. Umamaheswara Reddy, Prof. M. Muralidhar
Journal of Electrical and Electronics Engineering (IJEET), Volume , Year 2012, Pages

64. **Comparative analysis of heart rate variability for ECG groups based on correlation dimension**

V. Supraja, G. Umamaheswara Reddy
International Journal of Applied Engineering Research, Volume 6, Year 2011, Pages 357-366

65. **YCocg Color Image Edge detection**

Suresh MCV, G. Umamaheswara Reddy

Global Journal Engineering and Applied Sciences (GJEAS), Volume , Year 2011, Pages

66. **Fusion Based Gaussian noise Removal in the Images Using Curvelets and Wavelets with Gaussian Filter**

Naga Sravanthi Kota, G. Umamaheswara Reddy

International Journal of Image Processing (IJIP), Volume , Year 2011, Pages

67. **Gaussian Noise Suppression in MRI images using wavelet based approach**

Surya Sri VidyaBalantrapu, G. Umamaheswara Reddy

International Journal on Electronic and Electrical Engineering (IJEEE), Volume , Year 2010, Pages

68. **Wavelet-based De-Noising of ECG Signal by Customized Thresholding**

G. Umamaheswara Reddy, Prof. M. Muralidhar

International Journal on Electronic and Electrical Engineering (IJEEE), Volume , Year 2010, Pages

69. **ECG De-Noising using improved thresholding based on Wavelet transforms**

G. Umamaheswara Reddy, Prof. M. Muralidhar, Dr. S. Varadarajan

Journal of Computer science and Network security (IJCSNS), Volume , Year 2009, Pages