



Dr. B.Chinna Rao

Professor

Department of Electronics & communication Engineering

Raghu Engineering College, Visakhapatnam, - 531162,

Andhrapradesh, INDIA

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Interests: Signal Processing; Digital Image Processing; Communication Engineering

Course Taught Previously

PG.

- Digital System Design
- Advanced Digital Signal Processing
- Digital Image & Video Processing
- Adaptive Signal Processing
- Transform Techniques

UG.

- Digital integrated circuit Design.
- Digital system design.
- Switching Theory and Logic Design.
- Digital Signal processing
- Embedded Systems
- Electronic Measuring Instrumentation
- Digital Signal Processing
- Electronic Devices and Circuits
- Electronic Circuit Analysis
- Control Systems
- Signals & Systems
- Cellular and Mobile Communications
- Optical Communications
- Telecom switching Systems and Networks
- Micro Processors and Micro Controllers
- Analog Communications

- Digital communications
- Probability Theory and Stochastic Process
- Digital IC Applications

- **Laboratories Handled**
- Digital Signal Processing Lab
- Electronic Devices and Circuits Lab
- Electronic Circuit Analysis Lab
- Micro Processors and Micro Controllers Lab
- Signals & Systems Lab
- Digital Image & Video Processing Lab
- Digital Communications Lab

Publications

International Journals

1. Dr.B.Chinna Rao, Dr. K. Raju , Dr.G.Ramesh Babu , Dr.Chandra Sekhar Pittala “An Improved Gabor Wavelet Transform And Rough K-Means Clustering Algorithm For MRI Brain Tumor Image Segmentation”, Journal of Real-Time Image Processing (JRTIP) (**Communicated-RTIP-S-21-00869**).[SCI- SPRINGER]
2. B. Chinna Rao, S. Saradha Rani , K. Shashidhar , Gandi Satyanarayana , K. Raju “An effective Image Denoising method with the integration of thersholding and bilateral filtering”, Computer Methods and Programs in Biomedicine, (**Communicated-CMPB-S-21**).[SCI- SPRINGER]
3. Gandi Satyanarayana ,Dr.P.Appala Naidu,Dr.Venkata Subbaiah Desanamukula, Dr.K.Satish Kumar,Dr.B. Chinna Rao, “A Mass Correlation Based Deep Learning Approach Using Deep Convolutional Neural Network To Classify The Brain Tumor”, Biomedical Signal Processing & Control , (**Communicated**).[SCI- SPRINGER]
4. K. Ravi Kumar, P. Rajesh Kumar, G. Manmadha Rao, B. Chinna Rao “Implementation of GOA to Non-Uniform PRI of SFPT for improving Resolution in Radar”, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-8, Page No: 936-943, June 2020.[Scopus Indexed]

5. Dr. k. Raju, A. Sampath Dakshina Murthy , Dr. B. Chinna Rao, Sindhura Bhargavi, G. Jagga Rao, K. Madhu, K. Saikumar “A Robust And Accurate Video Watermarking System Based On SVD Hybridation For Performance Assessment”, International Journal of Engineering Trends and Technology (IJETT) ,ISSN: 2231-5381, Volume 68 Issue 7,Page No: 19-24 - July 2020[Scopus Indexed]
6. Syambabu Vadlamudi , B.Chinna Rao and N.Vanitha “Monitoring and Controlling of Soil Relative Humidity using Labview”, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Page No: 499-501, Volume-9 Issue-6, April 2020. [Scopus Indexed]
7. B.ChinnaRao, Dr.M.Madhavi Latha “An Image Denoising Frame work Based on Patch Grouping in Complex Wavelet domain”, International Journal of Advanced Trends in Computer science and Engineering, ISSN:2278-3091 ,Volume 8. No.5, Page No:2299- 2306, Septemeber – October, 2019 [Scopus Indexed]
8. B.ChinnaRao and Dr.M.Madhavilatha “Edge –Aware Patch grouping for Image denoising in the complex wavelet domain”, Journal of Computational and Theoretical Nano science (JCTN) ISSN: 1546-1955, Page No: 1770-1780,Vol. 17, 1770–1780, 2020 [Scopus Indexed]
9. B.ChinnaRao and Dr.M.Madhavilatha, “Edge oriented image Denoising through an adaptive thresholding in the Complex wavelet domain”, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, vol.8, no.4S2, Page No: 331-339, March, 2019 [Scopus Indexed].
10. B.ChinnaRao and Dr.M.Madhavilatha, “An Image Denoising Framework Using DTCWT and Fuzzy based Decision Algorithm for Shrinking” Journal of Advanced Research in Dynamical & Control Systems , ISSN 1943-023X, vol. 10, no.08, pp.1645-1652, 08-Special Issue, 2018 [Scopus Indexed]
11. B.ChinnaRao and Dr.M.Madhavilatha, “Fuzzy Based Adaptive

Thresholding For Image Denoising In Complex Wavelet Domain”, International Journal of Scientific & Technology Research, ISSN 2277-8616 ,VOLUME 8, ISSUE 11, Page No: 503-507 , November,2019. [Scopus Indexed]

12. Syambabu Vadlamudi and B.Chinna Rao “Avoiding Vehicle Accidents Using MEMS Accelerometer” International Journal of Pure and Applied Mathematics ISSN: 1314-3395 ,Volume 120 No. 6, 2018,Page.no:9817-9825, [Scopus Indexed]
13. B.ChinnaRao, Dr.M.Madhavilatha, “ Improved Image Denoising Algorithm Using Dual Tree Complex Wavelet Transform with New Thresholding Technique ” International Journal of Electronics Engineering, ISSN : 0973-7383,4(1), 2012, pp. 135– 139
14. B.ChinnaRao, Dr.M.Madhavilatha, “ Improved Image Denoising Algorithm using Dual Tree Complex Wavelet Transform” International Journal of Computer Applications ,ISSN:0975 – 8887, Volume 44– No20, April 2012
15. B. Chinna Rao, Dr.M. Madhavi Latha, “Reconfigurable Wavelet Thresholding for Image Denoising while Keeping Edge Detection” in International Journal of Computer Science and Network Security (IJCSNS), ISSN: 1738-7906,VOL. 11 No.3, March 2011.
16. B.ChinnaRao, Dr.M.Madhavilatha, “Image Compression and Decompression using Discrete Wavelet Transform”, Global Journal of Computer Application and Technology (GJCAT), ISSN: 2249-1945,Vol 1 (1), 2011, 66-71.
17. B.ChinnaRao, Dr.M.Madhavilatha,”Second Generation Curvelet Shrinkage Model Based Image Denoising”, International Journal of Computer Science and Communication (IJCSC), Volume-II, Number-I of January-June 2011, pp. 279-285.

18. B.ChinnaRao, Dr.M.Madhavilatha , “ Selective Neighbouring Wavelet Coefficients Approach for Image Denoising”,International Journal of Computer Science and Communication (IJCSC), Volume-II, Number-I of January-June 2011, pp.73– 77.
19. B.ChinnaRao, Dr.M.Madhavilatha, “Analysis of Multi Resolution Image Denoising Scheme using Fractal Transform”, The International Journal of Multimedia & Its Applications (IJMA) Vol.2, No.3, August 2010. pp. 63-74.
20. B.ChinnaRao, Dr.M.Madhavilatha,"A Combination of Wavelet & Fractal Image Denoising Technique", International Journal of Electronics Engineering (IJEE),Volume 2, Number 2,July-December 2010,pp 259-264.
21. P.Sudhakar, B.ChinnaRao, Dr. M. Madhavi Latha, “Optimization of 1D and 2D Cellular Automata for Pseudo Random Number Generator” IOSR Journal of VLSI and Signal Processing (IOSR-JVSP) Volume 4, Issue 6, Ver. I (Nov - Dec. 2014), PP 28-33
22. R.Thaviti Raju, K.Chitambararao, T.Viswanadham, B.ChinnaRao, “Design and Realization of practical FIR filter based on CSD and DA algorithms”, IOSR Journal of VLSI and Signal Processing (IOSR-JVSP), Volume 6, Issue 4, Ver. II (Jul. - Aug. 2016), PP 40-49, e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197
23. N. Chandini, B. Chinna Rao, A. Jaya Laxmi, “An Efficient Hybrid Parallel Prefix Adders for Reverse Converters using QCA Technology” *International Journal of Computer Applications (0975 – 8887) Volume 153 – No.1, November 2016,Page: 7-12.*
24. M.Asha, B.Chinna Rao, “Implementation of ASIC For High Resolution Image Compression In Jpeg Format” *IOSR Journal of VLSI and Signal Processing (IOSR-JVSP) , Volume 5, Issue 4, Ver. I (Jul - Aug. 2015), PP 01-10 e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197.*
25. K. Santoshi , B. Chinna Rao, “ Performance improvement in

Noise reduction based on Double Density Dual Tree complex wavelet transform” CiiT International Journal of Digital Image Processing, Vol 7, No 06, June 2015, Page:182-185

26. P.Lavanya, B.Chinna Rao, T.Vishnu Murty,“ *High Efficient Carry Select Adder using Zero Carry Look Ahead Adder -* ” *International Journal of Engineering Trends and Technology (IJETT) – Volume 18 Number1 Dec 2014*
27. M. Sravan Kumar, B.Chinna Rao, “ Voice Based Robo Using Automatic Speech Recognition System” *International Journal of Engineering Research & Technology (IJERT)* Vol. 1 Issue 7, September – 2012, ISSN: 2278-0181
28. Ch.Rajasekhar,B.ChinnaRao-“A COLOR EDGE DETECTION ALGORITHM IN RGB COLOR SPACES”, *Global Journal of Advanced Engineering Technologies*, Vol1-Issue3-2012, ISSN: 2277-6370, Page .Num:128-131
29. Y. Venkat Seshaiyah, B.Chinna Rao, “ Verilog Implementation Of Da Based Dct With High Accuracy Error-Compensated Adder Tree” *International Journal of Engineering Research and Applications (IJERA)* ISSN: 2248-9622, Vol. 2, Issue 5, September- October 2012, pp.1458-1462
30. Elisha, B.ChinnaRao, “MEDICAL IMAGE REGISTRATION BASED ON GRADIENT FIELD MUTUAL INFORMATION” *Global Journal of Advanced Engineering Technologies*, Vol1-Issue3- 2012, ISSN: 2277-6370
31. B. Prasad kumar, B. Chinna Rao, “ Novel Pattern Matching using FSM Algorithm for Memory Architecture” *International Journal of Modern Engineering Research (IJMER)* Vol.2, Issue.4, July-Aug. 2012 pp-2742-2747.
32. P.Krishna Kishore, B.Chinna Rao, “ARM Based Mobile Phone-Embedded Real-Time Remote Video Surveillance System With Network

Camera” International Journal of Emerging Technology and Advanced Engineering, ISSN 2250-2459, Volume 2, Issue 8, August 2012

33. D.J.Prasad kumar, B.Chinna Rao, “A Novel Techniques to Reduce EMI Attenuation By Triangular Modulation ” International Journal of Engineering Research & Technology (IJERT) Vol. 1 Issue 6, August – 2012, ISSN: 2278-0181
34. K. Bhaskara Rao, B.Chinna Rao, “ Radix-8 Booth Encoded Modulo $2n - 1$ Multipliers with Parallel Prefix Adder for High Dynamic Range Residue Number System ” International Journal of Engineering Research and Development , Volume 5, Issue 1 (November 2012), PP. 38-45
35. V Ashok, B.Chinna Rao, “A Streamlined Architecture For 3-D Discrete Wavelet Transformation And Inverse Discrete Wavelet Transform” International Journal of Engineering Research and Applications (IJERA) Vol. 2, Issue 5, September- October 2012, pp.1432-1439
36. Aditya Putta, B. Chinna Rao, “Power Efficient and Reuse of Memory with Steiner Graphs ” International Journal of Modern Engineering Research (IJMER) Vol.2, Issue.4, July-Aug. 2012 pp-2735-2741

Conference Proceedings

- 1) M.Asha, B.Chinna Rao, “JPEG COMPRESSION FOR HIGH QUALITY IN ASIC IMPLEMENTATION “IEEE Technically Co-sponsored Conference on Emerging trends in Signal Processing And Communication Engineering (SPACE-2015) held in AITAM, Tekkali,Srikakulam,A.P.
- 2) Padmavathi. K, B.Chinna Rao, “Wireless Patient Health Monitoring System” International Conference on Electrical and Electronics Engineering (ICEEE) -9th

Sept, 2012, Guntur- ISBN: 978-93-82208-21-1

- 3) B.Chinna Rao, Y.Apparao, "Design of a Low Power FLIP-FLOP Using CMOS Deep Submicron Technology" International Conference on Electrical and Electronics Engineering (ICEEE) -9th Sept, 2012, Guntur- ISBN: 978-93-82208-21-1
- 4) B.Chinna Rao, Dr.M.Madhavilatha, "Gaussian Diffusion Based Image Denoising Technique using Combination of Wavelet and Fractal Transforms", in International Conference on Computational Technologies in Electrical and Electronics Engineering, pp. 131-136. IEEE Region 8, SIBIRCON-2010 Conference, July 11-15, Irkutsk, Russia
5. B.Chinna Rao, Dr.M.Madhavilatha, "Spatially Adaptive Bayesian Wavelet Shrinkage Algorithm for Medical Imaging", 1st International Conference on Emerging Trends in Signal Processing & VLSI Design organized by Gurunanak Engg.College, Hyderabad, During 11th-13th June, 2010
6. B.Chinna Rao, C.Hemasundara Rao, "A Combination of Wavelet & Fractal Image Denoising Technique", 1st International Conference on Emerging Trends in Signal Processing & VLSI Design organized by Gurunanak Engg College, Hyderabad, During 11th-13th June, 2010.
7. B.Chinna Rao, Dr M.Madhavi Latha, C.Hemasundara Rao, N.Laxmi: "Image Denoising Based on Shrinkage". International Conference on Systemics, Cybernetics and Informatics, January 27-30, 2010, Page:514-517.
8. B.Chinna Rao, Dr.M.Madhavilatha, "A Review of Spatial domain image Denoising techniques", in International Conference on Systemics, Cybernetics, and Informatics, Jan 7th-10th, 2009 in Hyderabad.

9. B.Chinna Rao, Dr. M. Madhavilatha, M. Venugopala Rao, K. Raju" Complex Wavelet based regularize Deconvolution for medical imaging" in International Conference on Systemics, Cybernetics, and Informatics, Jan 7th-10th, 2009 in Hyderabad

PHDs Supervised

Nil

Workshops/Conferences/Seminars/Symposiums organised
Conferences/Symposiums

| S. No | Name of the Programme | Dates | Sponsored by | Role |
|-------|--|--------------------------|--|----------|
| 1. | One Week FDP Programme on "Recent trends in Electronics using Fuzzy Logic " | 30-03-2020 To 04-04-2020 | Department of ECE, NSRIT, Visakhapatnam, AP. | Convener |
| 2. | One Week FDP Programme on "Recent trends in Electronics using Fuzzy Logic and Neural Networks" | 20-04-2020 To 25-04-2020 | Department of ECE, NSRIT, Visakhapatnam, AP. | Convener |
| 3. | Two Weeks FDP Programme on "Easy Way of Writing the Survey Paper" | 08-06-2020 To 19-06-2020 | Department of ECE, NSRIT, Visakhapatnam, AP. | Convener |
| 4. | TECHNIMBLE 2K20, A National level Students Technical Symposium on | 14th March, 2020 | NSRIT, Visakhapatnam, AP. | Convener |

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| | “ organized by | | | |
| 5 | TRRANSCENDZ- 2006, A National Level Technical Symposium | March,2006 | TRR College of Engineering, Hyderabad | Convener (ECE) |

Seminars, Workshops and STTPs

| S. No | Name of the Programme | Dates | Sponsored by |
|--------------|--|--------------------------|---|
| 1. | A One week online Faculty Development Program on “Communication Systems using Machine Learning Algorithms (CSMLA)” | 14-03-2022 To 19-03-2022 | Dept. of ECE, Annamacharya Institute of Technology and Sciences, Hyderabad. |
| 2 | A One week online Faculty Development Program on “Soft Computing Techniques and Hands on with MATLAB” | 09-05-2022 To 13-05-2022 | Department of ECE, AITAM Tekkali, Srikakulam Dist, A.P |
| 3 | Two Day International Conference (Virtual)IAQHEI' 2022 “ Innovative Mechanisms & Standards for Assuring Quality in HEI's | 11-03-2022 To 12-03-2022 | IQAC & ASC,KL University |
| 4 | One week national level online faculty development program on “Signals, Systems and Transform Techniques” | 22-11-2020 To 27-11-2021 | Department of EEE, MVSR Engineering College (Autonomous), Hyderabad. |
| 5 | Three Day Faculty Development Programme on " | 16-12-2021 To 18-12-2021 | Department of ECE, Raghu Engineering College, |

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|----|---|--|---|
| | Recent advances in IoT and Machine Learning: Application and Hands-On " | | Visakhapatnam, AP, India, |
| 6 | Two-Week ISTE STTP CMOS Mixed Signal and Radio Frequency VLSI Design” | 30-01-2017 To 04-02-2017 | Indian Institute of Technology, Kharagpur, India |
| 7 | Three Day TEQIP Phase –II sponsored training on “Pedagogy and Management Capacity Enhancement Program for Teaching Staff” | 23-06-2016 To 25-06-2016 | AITAM, Tekkali, Srikakulam Dist, A.P in collaboration with Engineering Staff College of India, an autonomous organ of The Institution of Engineers (India). |
| 8 | “ A One Day Awareness workshop on workshop on Intellectual Property Rights (IPR) in E & IT Sector” sponsored by | 05-07-2016 | DeitY Ministry of Communications & IT, Government of India, organized by AITAM, Tekkali, Srikakulam Dist, A.P. |
| 9 | A One week Faculty Development Program on Advances in Communication Technology” | 26-09-2016 To 01-10-2016 | Department of ECE, AITAM, Tekkali, Srikakulam Dist, A.P. |
| 10 | Two-week ISTE WORKSHOP on “Pedagogy for Effective use of ICT in Engineering Education ” | 12 June to 2 nd August, 2014. | Indian Institute of Technology Mumbai, Bombay, India. |
| 11 | A One Day workshop on Outcome Based Education” | 06-12-2014 | AITAM, Tekkali, Srikakulam Dist, A.P. |

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| 12 | Two Day Seminar on “ Twenty First Century , The dawn of Digital Era: Pedagogical Issues of Technical Teachers” | 15-11-2014 To 16-11-2014 | ISTE Chapter, AITAM, Tekkali, Srikakulam Dist, A.P in association with ISTE AP Section |
| 13 | A Two Day National workshop on “ Advances in Signal and Image Processing” | 01-03-2013 To 02-03-2013 | Dept. of ECE, AITAM, Tekkali, Srikakulam Dist, A.P. |
| 14 | Three Week UGC SPONSORED Refresher Course on “Digital Signal Processing” | 17-11-2004 To 07-12-2004 | JNTU Hyderabad, A.P. |
| 15 | One-day Workshop on “EDA TOOLS FOR VLSI ” | 27-09-2006 | Department of ECE, JNTU College of Engineering, Hyderabad, A.P. |
| 16 | Two days’ Workshop on “CMOS VLSI AND ASIC DESIGNS” | 10-08-2007 To 11-08-2007 | Department of ECE, JNTU College of Engineering Hyderabad, A.P. |
| 17 | Workshop on “ Image & Video Processing” | 21-06-2007 To 23-06-2007 | Jointly organized by departments of ECE of Sreenidhi Institute of Science & Technology, Hyderabad, JNTU College of Engineering, Hyderabad, JNTU College of Engineering, Kakinada, RGM College of Engineering, Nandyal & Govt. Institute of Electronics , Secunderabad |

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| 18 | Two days National Level Workshop on “ WAVELET TRANSFORMS & IMAGE PROCESSING ” | 21-12-2006 To 22-12-2006 | Department of ECE, MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY, Hyderabad, A.P |
| 19 | A Two-day National Workshop on “Faculty Development ” | 10-02-2007 To 11-02-2007 | St.STANLY COLLEGE OF ENGINEERING & TECHNOLOGY, Patancheru, Hyderabad, A.P |
| 20 | Two days’ Workshop on “ Embedded Systems Design and Development ” | 01-09-2006 To 02-09-2006 | Department of ECE, JYOTHI ENGINEERING COLLEGE, Patancheru, Hyderabad, A.P. |
| 21 | Two-day National level Workshop on “ Effective Teaching & Presentation skills” | 04-02-2006 To 05-02-2006 | T.R.R COLLEGE OF ENGINEERING, Patancheru, Hyderabad, A.P. |

Visit to outside institute/organization: Nil

Continuing Education / QIP Short Term Lectures / Special Lectures given:

Nil

Details of professional training and research experience : Nil

Projects

Sponsored R & D, Consultancy Projects: Nil

Awards and Honors

Nil

Additional Responsibility

RESPONSIBILITIES WITHIN THE INSTITUTE:

1. Member, Department advisory Committee (DAC), Dept. of ECE, Raghu Engineering College, Visakhapatnam.
2. Member, Academic Planning and Monitoring Committee (APMC), Dept. of ECE, Raghu Engineering College, Visakhapatnam.

3. NBA, Criterion-1 Coordinator, Dept. of ECE Raghu Engineering College, Visakhapatnam.
4. Member, NAAC-Criterion-1, Dept. of ECE, Raghu Engineering College, Visakhapatnam.
5. BOS Member, Dept. of ECE, Raghu Engineering College, Visakhapatnam.

POSITIONS HELD OUTSIDE THE INSTITUTE:

1. PhD Examiner: Sarvepalli Radhakrishnan University, Bhopal (Examination of the PhD Thesis of Mr. Ashutosh Kumar Singh)
2. Editorial Board member & Serving as a reviewer of International Journal of Multimedia & its Applications(IJMA)
3. Serving as Reviewer of International Journal of Computer science and Business Informatics(IJCSBI)