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#### **Present Position**

Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai from September-2009.

#### **Previous Positions**

- Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai from September-2009.
- Assistant Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai during September-2001 and September-2009.
- > Lecturer Sr. Grade, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai during October-1998 and September-2001.
- ➤ Lecturer, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai during May-1994 and October-1998.

## Other Employment

LECTURER, REGIONAL ENGINEERING COLLEGE, Tiruchirapalli for 1 year.

# Degree

- M.Tech. in ELECTRONICS AND COMMUNICATION ENGG, IIT MADRAS, IIT MADRAS (1985 - 1987).
- B.Tech. in ELECTRONICS AND COMMUNICATION ENGG, Sri Venkateswara University College of Engineering, TIRUPATI, S.V. University, Tirupati (1980 - 1985).

# Research Degree

Ph.D. in DIGITAL SIGNAL AND IMAGE PROCESSING from Faculty of ELECTRICAL ENGINEERING, IIT MADRAS, IIT MADRAS (1987 - 1992). Title: NEW FILTER STRUCTURES AND ALGORITHMS FOR ONE- AND TWO-DIMENSIONAL DIGITAL SIGNAL PROCESSING.

## Area of Specialisation

DIGITAL SIGNAL AND IMAGE PROCESSING

## Membership in Professional Organization

> INDIAN SOCIETY FOR TECHNICAL EDUCATION

#### Research Guidance

Number of Ph.D Scholars Guided: 2Number of M.S (By Research) Students Guided: 1Number of M.E./ M.Tech. Projects Guided: 50Number of M.E./ M.Tech. Projects Guiding: 3

## Papers Published in Journals

Research Papers Published in International Journals : 19
Research Papers Published in National Journals : 1

- 1. Saffrine Kingsly, Malathi Kanah, kasabai, Mohammed Ghulam Nabi Alsath, Arun Kumar Shrivastav,, "Compact Frequency and Bandwidth Tunable Bandpass—Bandstop Microstrip Filter",
- 2. Y.V.Ramana Rao and C.Eswaran, " A pole sensitivity based method for the design of digital filters for error spectrum shaping", IEEE Trans. Circuits Syst., published by IEEE. Vol. 36, pp. 1017-1020 (1989).
- 3. Y.V.Ramana Rao and C.Eswaran, "Constant input stability of some known digital biquads", IEE Electronics Letters, published by IEE. Vol. 25, pp. 762-763 (1989).
- 4. C.Eswaran And Y.V.Ramana Rao and A.Antoniou, "Modified series and parallel adaptors which lead to reduced sensitivity in wave digital filters", Canadian Journal of Electrical and Computer Engineering, published by Canadian Journal of Electrical and Computer En. Vol. 16, pp. 47-52 (1991).
- 5. Y.V.Ramana Rao and , K.Manivannan and C.Eswaran, "New low sensitivity and low noise GIC digital filter structures", Canadian Journal of Electrical and Computer Engineering , published by Canadian Journal of Electrical and Computer Engine. Vol. 16, pp. 112-117 (1991).
- 6. Y.V.Ramana Rao and C.Eswaran, " A new algorithm for BTC image bit plane coding", IEEE Trans. Communications, published by IEEE. Vol. 43, pp. 2010-2011 (1995).
- 7. Y.V.Ramana Rao and C.Eswaran, "New bit rate reduction techniques for block truncation coding", IEEE Trans. Communications, published by IEEE. Vol. 44, pp. 1-4 (1996).

- 8. Y.V. Ramana Rao and N. Venkateswaran, "A numerically approximate high speed divider for image processing applications", Information Technology Journal, published by Asian Network for Scientific Information. pp. 445-447 (2006).
- Y.V. Ramana Rao and N. Venkateswaran, "K-Means clustering based image compression in wavelet domain", Information Technology Journal, published by Asian Network for Scientific Information. pp. 148-152 (2007).
- S. Natarajan and Y.V. Ramana Rao, "Modified Log-Exp based image compression algorithm", International Journal of Computer Science and Network Security, published by International Journal of Computer Science and Netw. Vol. 8, pp. 179-184 (2008).
- 11. S. Natarajan and Y.V.Ramana Rao, " State based dynamic multi-alphabet arithmetic coding", The Imaging Science Journal, published by The Imaging Science Journal. Vol. 57, pp. 30-36 (2009).
- 12. S. Natarajan and Y.V. Ramana Rao, "Ratio-Modified Block Truncation Coding Algorithmsfor Reduced Bitrates", The Imaging Science Journal, published by The Imaging Science Journal. Vol. 59, pp. 25-31 (2011).
- S.Abirami and Y.V. Ramana Rao, " A Fuzzy C-Medoids based CLARA Algorithm for Fast Image Segmentation", The IUP Journal of Computer Sciences, published by ICFAI. Vol. 6, pp. 7-16 (2012).
- 14. Yogeshwari Panneeer Selvam,Malathi Kanagasabai,Ghulam Nabi Alsath,Sangeetha Veal,Saffrine Kingsly,Sangeetha Subbraj,Y.V. Ramana Rao,Raju Srinivasan,Abhai kumar Varadhan,Meenakshisundaram Karuppaiah, "A Low-Profile Frequency- and Pattern-Reconfigurable Antenna", IEEE Antennas and Wireless Propagation Letters, published by IEEE. Vol. 16, pp. 3047-3050 (2017).
- 15. Vimal R Sam Singh,Sangeetha Subbaraj,Malathi Kanakasabai,Esther Florence Sundarsingh,Panneerselvam Yogeshwari,Saffrine Kingsly,Y.V. Ramana Rao, "Characterization of Delamination in Fiber-Reinforced Epoxy-Based PCB Laminates, Using an EBG-Enhanced Planar Microwave Sensor 7", IEEE Transactions on Components, Packaging and Manufacturing Technology Home, published by IEEE. Vol. 7, Issue 10, pp. 1739-1746 (2017).
- 16. Nandhini Sivasubramanian, Gunaseelan Konganathan, Yeragudipati Venkata Ramana Rao, "High capacity multi‐bit data hiding based on modified histogram shifting technique", ETRI journal, published by Wiley. Vol. 40, Issue 5, pp. 677-686 (2018).
- Kanakasabai, Mohammad 17. Saffrine Kingly, Malathi Ghulam Nabi Alsath, Arun Kumar Shrivastav, Sangeetha Subbaraj, Yogeshwari Panneerselvam, Ramprabhu Sivasamy, Y.V. Ramana Rao, "Compact Frequency and Bandwidth Tunable Bandpass-Bandstop Microstrip Filter", IEEE Microwave and Wireless Components Letters, published by IEEE. Vol. 28, Issue 9, pp. 786-788 (2018).
- 18. Natarajan Somasundaram, N. Ramadass, Y. V. Ramana Rao, "Orientation Independent Shape Detection Using Tangential XOR method for Machine Vision", International Journal of Imaging and Robotics, published by CESER Publications. Vol. 18, Issue 4, pp. 186-192 (2018).

- 19. Latha Palani, Sivakumar Rajagopal, Yeragudipati Venkata Ramana Rao, "Area efficient high-performance time to digital converters", Microprocessors and Microsystems, published by Elsevier. Vol. 73, pp. 1 9 (2020).
- Sumitra Velayudham, Sivakumar Rajagopal, Yeragudipati Venkata Ramana Rao, Seok-Bum Ko, "Power Efficient Error correction coding for onchip interconnection links", IET Computers & Digital Techniques, published by The Institution of Engineering and technology. pp. 1-14 (2020).

## Papers Presented in Programmes

Research Papers Presented in International Programmes : 0
Research Papers Presented in National Programmes : 7

- ABINAYA R, Y V RAMANA RAO, "DISCRETE WAVELET TRANSFORM APPROACH FOR REGISTRATION USING ADAPTIVE POLAR TRANSFORM" presented in a National level conference on INNOVATIONS IN EMERGING TECHNOLOGY, organised by KONGU ENGG COLLEGE, PERUNDURAI, INDIA from 17-Feb-2011 to 18-Feb-2011.
- 2. THRESA P, Y V RAMANA RAO, "REMOVAL OF SALT AND PEPPER NOISE IN IMAGES USING MODIFIED DIRECTIONAL FILTER" presented in a National level conference on RECENT TRENDS IN ENGINEERING AND TECHNOLOGY, organised by AGNI COLLEGE OF TECHNOLOGY, CHENNAI, INDIA from 15-Mar-2013.
- 3. K. Sangeetha and Dr. Y.V. Ramana Rao, "VLSI Implementation of Area Efficient Architecture for Sine Function Approximation" presented in a National level conference on 2013 National Conference on Digital Convergence, organised by RMK Engineering College, Gummidipoondi, TN, INDIA from 22-Apr-2013 to 23-Apr-2013.
- A. Josephine Mary and Y.V. Ramana Rao, "Implementation of Improved 32-bit Vedic Multiplier using modified SQRT CSLA" presented in a National level conference on National Conference on Digital Convergence NCDC, organised by R.M.K. Engineering College, Chennai, India from 23-Mar-2015 to 23-Mar-2015.
- 5. R. Jeba Shiny and Y.V. Ramana Rao, "FPGA Implementation of Pipelined MCM based 4/8/16 point 1-D and 2-D Forward and Inverse Integer DCT architecutres" presented in a National level conference on National Conference on Digital Convergence NCDC, organised by R.M.K. Engineering College, Chennai, India from 23-Mar-2015 to 23-Mar-2015.
- GAUTHAM N, Y V RAMANA RAO, "MODIFIED ADAPTIVE WEIGHTED MEAN FILTER FOR REMOVAL OF SALT AND PEPPER NOISE IN DIGITAL IMAGES" presented in a National level conference on DIGITAL CONVERGENCE 2015, organised by R M K ENGINEERING COLLEGE, GUMMIDIPOONDI, INDIA from 23-Mar-2015.
- 7. ELANGO N, Y V RAMANA RAO, "MODIFIED ADAPTIVE FUZZY BASED SWITCHING WEIGHTED AVERAGE FILTER FOR REMOVING IMPULSE NOISE FROM DIGITAL IMAGES" presented in a National level conference on DIGITAL CONVERGENCE 2015, organised by R M K ENGINEERING COLLEGE, GUMMIDIPOONDI, INDIA from 23-Mar-2015.

#### **Invited Lectures**

- Delivered a Lecture on "Signals and Signal Processing for communication" in Short Term course of TNEB (Power System Communication) organized by CEG, Anna University, Chennai-25, ECE Dept., CEG, Anna University, Chennai-25 (06-Aug-1998).
- 2. Delivered a Lecture on "Image Compression Techniques" in FDP IT6005 Digital Image Processing organized by SSN college of Engineering, Kalavakkam, Chennai (24-Jun-2017).
- 3. Delivered a Lecture on "Signals and Systems" in FDP organized by MIT, Anna University, Chrompet, Chennai (20-Jun-2018).

## Extension & Outreach Programme

- 1. Expert Lecture, FDP on Signals and Systems, participated by Engineering College Faculty and funded by Anna University at ECE Dept. during 27-Nov-2006 and 09-Dec-2006. No. of participants: 30.
- 2. Expert Lectures in Signals and Systems, ANNA UNIVERSITY EDUSAT PROGRAMME, participated by Tamilnadu Engineering Colleges ECE Students and funded by Anna University at EMMRC during 01-Jan-2007 and 30-Apr-2007. No. of participants: 0.
- 3. Expert Lecture, FDP On Digital Signal Processing, participated by Engineering College Faculty and funded by Anna University at ECE Dept. during 04-Jun-2007 and 16-Jun-2007. No. of participants: 30.
- 4. Expert Lectures in Signals and Systems, ANNA UNIVERSITY EDUSAT PROGRAMME, participated by Tamilnadu Engineering Colleges ECE Students and funded by Anna University at EMMRC during 01-Jan-2008 and 30-Apr-2008. No. of participants: 0.
- 5. Expert Lecture, FDP on Digital Communication, participated by Engineering College Faculty and funded by Anna University at ECE Dept. during 24-Nov-2008 and 30-Nov-2008. No. of participants: 30.
- 6. Expert Lectures in Digital Electronics, ANNA UNIVERSITY EDUSAT PROGRAMME, participated by Tamilnadu Engineering Colleges ECE Students and funded by Anna University at EMMRC during 01-Jan-2009 and 30-Apr-2009. No. of participants: 0.
- 7. Expert Lecture, FDP On Digital Signal Processing, participated by Engineering College Faculty and funded by Anna university at CSE Dept. during 01-Jun-2009 and 05-Jun-2009. No. of participants: 30.
- 8. LECTURES ON SIGNALS AND SYSTEMS, ANNA UNIVERSITY EDUSAT PROGRAMME, participated by AFFILIATED ENGG COLLEGES TO ANNA UNIVERSITY and funded by ANNA URSITYNIVE at EMMRC during 01-Jul-2016 and 30-Sep-2016. No. of participants: 250.