Dr. GUNASEELAN

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Present Position

Assistant Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai from January-2010.

Present Additional Responsibility

➢ Deputy Coordinator , UPE, Anna University, Chennai from December-2016.

➢ Project Officer, NHHID established by DST in Anna University with an initial grant of 12.4 c, Anna University, Chennai from March-2011.

➢ Treasurer, Society for Interdisciplinary Studies, Anna University, Chennai.

Previous Additional Responsibility

➢ Additional Chief Superintend For Pg Examinations, Department of Electronics and Communication Engineering, Anna University, Chennai.

➢ Additional Chief Superintend For Ug Examinations, Department of Electronics and Communication Engineering, Anna University, Chennai.

Other Employment

➢ Lecturer, PSG College of Technology, Coimbatore for 5 years.

Degree

❖ M.E. in ELECTRONICS AND COMMUNICATION ENGG , PSG College of Technology, Anna University (2003 - 2005).

❖ B.E. in ELECTRONICS AND COMMUNICATION ENGG , PSNA College of Engineering, Dindigul , Madurai Kamaraj University (1999 - 2002).

Research Degree

- ❖ Ph.D. in Wireless Communication from Faculty of Information and Communication, PSG College of Technology, Anna University (2006 - 2010).
  Title: Certain Investigations on PAPR Reduction Techniques and Adaptive Resource Allocation Algorithms for OFDM Systems..

Area of Specialisation

- ➤ Wireless Communication, Digital Signal processing

Membership in Professional Organization

- ➤ IETE and CSI

Research Guidance

Number of Ph.D Scholars Guiding : 7
Number of M.S (By Research) : 1
Students Guided
Number of M.E./ M.Tech. Projects : 16
Guided
Number of M.E./ M.Tech. Projects : 2
Guiding

Papers Published in Journals

Research Papers Published in International Journals : 11
Research Papers Published in National Journals : 2

1. Gunaseelan K and Kandaswamy A, "Adaptive Modulation with CFO Correction for OFDM Systems", ICGST International Journal on Digital Signal Processing, published by ICGST. Vol. 8, Issue 1, pp. 1-8 (2008).

2. Gunaseelan K., Venkateswari R. and Kandaswamy A, "A Novel Efficient Resource Allocation Algorithm for Multiuser OFDM Systems", IETE Tech Rev, published by IETE Tech Rev. Vol. 25, Issue 4, pp. 201-208 (2008).

3. Gunaseelan K. and Kandaswamy A, "A Novel Adaptive Modulation Technique to maximize the spectral efficiency of an OFDM System", National Journal of Technology, Vol. 14, Issue 3, pp. 29-36 (2008).

4. Gunaseelan K and Kandaswamy A, " Novel Precoded Companding Technique for PAPR reduction in OFDM Systems", National Journal of Technology, Vol. 5, Issue 2, pp. 100-105 (2009).

5. Gunaseelan K., Reba P. and Kandaswamy A., "Block diagonalisation with adaptive resource allocation algorithm for multi-user MIMO-OFDM systems", International Journal on Ultra Wideband Communications and Systems , published by Inderscience. Vol. 1, Issue 1, pp. 58-66 (2009).

6. Gunaseelan K., Venkateswari R., Karthikeyan R. and Kandaswamy A, "An Efficient Sub Carrier and Power Allocation for Dual Service Provisioning Multiuser OFDM Systems", International Journal on AMSE, published by AMSE. Vol. 14, Issue 2, pp. 1-16 (2009).

7. Gunaseelan K., Seethalakshmi E, " 'Image Resolution and Contrast Enhancement Using Singular value and Discrete wavelet Decomposition", Journal of Scientific and Industrial Research (JSIR) , Vol. 72, Issue 1, pp. 31-35 (2013).

8. M. Tamil Nidhi & K Gunaseelan, "Efficient Ranking of Diabetic Retinopathy and Glaucoma Using Echo State Neural Network and Radial Basis Function (RBF)", Journal of Medical Imaging and Health Informatics, published by American Scientific Publishers. Vol. 6, Issue 3, pp. 869-874 (2016).

9. Tamil Nidhi.M, K.Gunaseelan, "Efficient Detection Of Anatomical Structures In Healthy And Pathological Retinal Images Using Combined Automated Method", International Journal of Engineering Science and Technology (IJEST), published by Engg Journals Publications. Vol. 9, Issue 9, pp. 46-52 (2017).

10. Tamil Nidhi.M, K.Gunaseelan, "INVESTIGATION ON VASCULATURE IN DIABETIC RETINOPATHY DIGITAL FUNDUS IMAGES IN TERMS OF TEXTURE DESCRIPTORS", BIOMEDICAL SCIENCES INSTRUMENTATION, published by INTERNATIONAL ACADEMIC EXPRESS, U.S.A. Vol. 54, Issue 1, pp. 202-208 (2018).

11. A ArunKumar, K Gunaseelan, "Optimized buffer allocation for video multicasting applications with virtual memory implementation", EURASIP Journal on Image and Video Processing, published by Nature Publishing Group. Vol. 2018, Issue 1, pp. 1-11 (2018).

12. Nandhini Sivasubramanian, Gunaseelan Konganathan, Yeragudipati Venkata Ramana Rao, "High capacity multi‐bit data hiding based on modified histogram shifting technique", ETRI, published by Wiley. Vol. 40, Issue 5, pp. 677-686 (2018).

13. M. TamilNidhi & K. Gunaseelan, "Examining the variation of vascular structure in digital fundus images using textural pattern", Personal and Ubiquitous Computing, published by Springer London. Vol. 22, Issue 5, pp. 961-970 (2018).

Papers Presented in Programmes

Research Papers Presented in International Programmes   : 6
Research Papers Presented in National Programmes   : 2

1. "A Novel Excision Maximum Likelihood CFAR for multiple target situations in Weibull Clutter" presented in a National level conference on Emerging Trends in VLSI Design, organised by P S G College of Technology, India from 03-Mar-2006 to 04-Mar-2006.

2. "Adaptive resource allocation with multiuser interference cancellation for MIMO OFDM systems" presented in a International level conference on Signal Processing Systems, organised by IACSIT, Singapore from 15-May-2009 to 17-May-2009.

3. "Miniaturization Microstrip Patch Antenna by Using Complementary Electric Resonator Technique" presented in a National level conference on Organic Electronics, Green Communication and its Security Issues, organised by Erode Sengunthar Engineering College, India from 09-May-2014.

4. "Antenna Selection Based Spectrum Sharing for Cognitive Radio Networks" presented in a International level conference on Innovations in Information, Embedded and Communication Systems, organised by Karpagam College of Engineering, Coimbatore, India from 19-Mar-2015 to 20-Mar-2015.

5. "Power control scheme to mitigate interference for MIMO Cognitive Radio" presented in a International level conference on 3rd International Conference on Signal Processing, Communication and Networking (ICSCN) , organised by MIT, Anna University, India from 26-Mar-2015 to 28-Mar-2015.

6. G. Samuelraj Chrysolite , K. Gunaseelan, "Efficient Interference Mitigation Algorithm Using Co-operative Localization for Cognitive Radio Networks" presented in a International level conference on IEEE WiSPNET 2017 conference, organised by SSN College of Engineering, Chennai, India from 22-Mar-2017 to 24-Mar-2017.

7. G.Samuelraj Chrysolite, 2K.Gunaseelan, "Interference Mitigation Using Co-operative Localization with Co-operative sensing and relays for Cognitive Radio Networks" presented in a International level conference on International Conference for Phoenixes on Emerging Current Trends in Engineering and Management (PECTEAM 2018), organised by Panimalar College of Engineering, Chennai, India from 09-Feb-2018 to 10-Feb-2018.

8. BOUBACAR A.MAMOUDOU, K GUNASEELAN, "A Precoding And Companding Based PAPR Reduction Technique For UFMC System" presented in a International level conference on International Conference on Frontiers in Engineering, Applied Sciences and Technology (FEAST 2018), organised by NIT, Trichy , India from 27-Apr-2018 to 28-Apr-2018.

Current Sponsored Projects

1. "UPE IN BIOMEDICAL ELECTRONICS AND INSTRUMENTATION-LIMITED MANUFACTURING (ELECTRONICS)" (December-2016 - December-1969). Project Cost: 31295000.00.

2. "RFID based Infant Security and Infant Health Information Management System", funded by DST, New Delhi (September-2018 - September-2021). Project Cost: 1958800.00.

Sponsored Projects Completed

1. "A NOVEL MULTIPLE ACCESS INTERFERENCE MITIGATION TECHNIQUE FOR MIMO BASED COGNITIVE RADIO NETWORKS" (April-2014 - May-2015). Project Cost: 50000.00.

2. "RFID Based Infant Theft prevention systems " (May-2015 - July-2016). Project Cost: 2300000.00.

Programme Chaired

1. Chairman, International level conference titled "International Conference on Communication Security ICCS 2016" conducted by DECE, Pondicherry Engineering College, Pondicherry from 17-Mar-2016 to 19-Mar-2016.

2. International level conference titled "8th National Conference on Signal Processing Communication VLSI Design (NCSCV 2016)" conducted by DECE, Anna University Regional Campus, Coimbatore from 29-Apr-2016 to 30-Apr-2016.

Programme Organized

1. Coordinator, National level workshop on "Agilent ADS" from 04-Apr-2013 to 05-Apr-2013.

2. Coordinator , National level workshop on "Cognitive Radio Networks-Enabling Technologies and Challenges" from 08-Jan-2015 to 10-Jan-2015.

3. Coordinator , National level Short Course on "Prototyping Tools and Test bed Creation for 5G Wireless Communication " from 02-Mar-2016 to 06-Mar-2016.

4. Coordinator , International level workshop on "GIAN Course on MIMO Wireless" from 08-Aug-2016 to 12-Aug-2016.

5. Organizer, National level workshop on "Last mile connectivity for indigenous medical devices developed under DST- Hands on workshop on available technologies" from 27-Mar-2017 to 27-Mar-2017.

Programme Attended

1. Participated in a National level workshop on "COMPUTER NETWORKING" organized by ISTE, IIT Bombay and CGE Anna university, India.

2. Attended a National level Short Course on "EC 6502 - PRINCIPLES OF DIGITAL SIGNAL PROCESSING" organized by DECE,CEG, ANNA UNIVERSITY, India from 08-Dec-2014 to 14-Dec-2014.

3. Attended a National level Short Course on "CS 6701 - CRYPOTOGRAPHY AND NETWORK SECURITY" organized by CEG, ANNA UNIVERSITY, India from 25-May-2015 to 31-May-2015.

4. Participated in a National level workshop on "RECENT RESEARCH TECHNIQUES IN NEXT GENERATION WIRELESS TECHNLOGIES" organized by DEPT ECE, CEG ANNA UNIVERSITY, India from 21-Aug-2015 to 22-Aug-2015.

5. Participated in a National level workshop on "INTERNET OF THINGS - TECHNOLOGY OF TOMORROW" organized by DEPT ECE, CEG ANNA UNIVERSITY, India from 26-Nov-2015 to 27-Nov-2015.

6. Attended a National level Short Course on "Telelogue" organized by WIPRO, Bangalore, India from 07-Jan-2016 to 09-Jan-2016.

7. Participated in a National level workshop on " NEXT GENERATION NETWORKS AND DATA SECURITY" organized by DCSE,CEG, Anna university, India from 19-Jan-2016 to 22-Jan-2016.

8. Attended a National level seminar on "CHANGE MANAGEMENT AND CAPACITY BUILDING TO IMPROVE QUALITY OF SERVICE" organized by CEG, ANNA UNIVERSITY, India from 23-Feb-2016 to 23-Feb-2016.

9. Participated in a International level conference on "Third International Conference on " Signal Processing,Communication and Networking "" organized by MIT, Anna University, India from 26-Mar-2016 to 28-Mar-2016.

10. Attended a National level Short Course on "EC 6504- Microprocessor & Microcontroller" organized by CEG, Anna University, Chennai, India from 05-May-2016 to 11-May-2016.

11. Attended a National level Short Course on "CS 6003- Adhoc & Sensor Networks" organized by CEG, Anna University, Chennai, India from 28-Nov-2016 to 04-Dec-2016.

Experience Abroad

1. Visited NANYANG TECHNOLOGICAL UNIVERSITY, Singapore from 15-May-2009 to 17-May-2009. Purpose of visit :Paper Presentation .

Invited Lectures

1. Delivered a Lecture on "Spectrum Sharing Techniques " in WORKSHOP ON â€œCOGNITIVE RADIO NETWORKS - ENABLING TECHNOLOGIES AND CHALLENGES organized by CEG, Anna University, Chennai (08-Jan-2005).

2. Delivered a Lecture on "AES,AES CIPHER, TRIPLE DES" organized by MIT, ANNA UNIVERSIT, Chennai (15-Sep-2011).

3. Delivered a Lecture on "5G Waveforms" in Short-Term Training Programm on â€œPrototyping Tools and Testbed Creation for 5G Wireless Comm. organized by CEG, Anna University, Chennai (06-Mar-2016).

4. Delivered a Lecture on "Capacity of MIMO system with fading and non fading channels." in GIAN course on MIMO wireless organized by Department if ECE, CEG, Anna University, Chennai , Chennai (10-Aug-2016).

5. Delivered a Lecture on "RFID based infant theft prevention system and indigenous medical devices developed under NHHID" in Workshop on Last mile connectivity for indigenous medical devices developed under DST- Hands on work organized by All India Institute of Medical Sciences (AIIMS) , New Delhi (27-Mar-2017).