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#### **Present Position**

Assistant Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai from October-2008.

#### **Previous Positions**

➤ Lecturer, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai during August-2004 and October-2008.

### Other Employment

Lecturer, St Peter Engineering College for 7 years.

## Degree

 M.E. in ELECTRONICS AND COMMUNICATION ENGG, College of Engg, Guindy, Anna University (1999 - 2001).

# Research Degree

 Ph.D. in Wireless Networks from Faculty of Information and Communication Engineering, College of Engg Guindy, Anna Uinversity (2005 - 2012).

Title: Cross Layer Design Based Solutions for Qos Enhancement in Wireless Networks.

# Area of Specialisation

> Wireless Communication, Signal processing

#### Research Guidance

Number of M.E./ M.Tech. Projects: 15

Guided

Number of M.E./ M.Tech. Projects: 1

Guiding

### Papers Published in Journals

Research Papers Published in International Journals : 8
Research Papers Published in National Journals : 0

- 1. Manimekalai, T Meenakshi, M. and Abitha, J, " A Cross Layer Design Strategy For Video Transmission with Priority based Error Protection scheme", International Journal of Computational Intelligence Research & Application, published by Serial Publication. Vol. 3, Issue 1, pp. 103-107 (2009).
- 2. Manimekalai. T,Meenakshi, M., Princy Dinal, D. and Koteeshwari, R.S, " Cross Layer Based Throughput Optimization in Cognitive Radio Networks with Effective Channel Sensing Schemes", ICTACT Journal on Communication Technology,, Vol. 1, Issue 1, pp. 98-106 (2010).
- 3. Manimekalai, T., Meenakshi, M., Princy Dinal, D. and Koteeshwari, R.S, "Throughput Enhancement of Adhoc Cognitive Radio Networks using Neural Network Techniques", European Journal of Scientific Research, published by Euro Journals. Vol. 55, Issue 3, pp. 366-375 (2011).
- 4. Manimekalai, T., Meenakshi, M. and Maneesha S. Mohan,, "Multichannel Cognitive Cross Layer Optimization For Improved Video Transmission", Journal of Computer Science, published by Science Publication. Vol. 9, Issue 1, pp. 43-54 (2013).
- 5. Subaselvi, S.; Manimekalai, T.; Gunaseelan, K., "Energy Efficient Recursive Clustering and Gathering in Big Data for Wireless Sensor Networks", Sensor Letters, published by American Scientific Publishers. Vol. 17, Issue 9, pp. 680-687 (2019).
- 6. S. Karthika · T. Manimekalai · T. Laxmikandan, " A Comparative Study of Digital Self‑interference Cancellation Techniques in In‑Band Full‑Duplex OFDM Systems", Wireless Personal Communications, published by Springer. Vol. 110, Issue 1, pp. 31-44 (2020).
- 7. Thirunavukkarasu Manimekalai | Sparjan Romera Joan | Thangavelu Laxmikandan, " Throughput maximization for underlay CR multicarrier NOMA network with cooperative communication", ETRI Journal, published by Wiley, pp. 1-13 (2020).
- 8. Manimekalai Thirunavukkarasu, Romera Joan Sparjan Laxmikandan Thangavelu, "An Adaptive Power Allocation Scheme for Performance Improvement of Cooperative SWIPT NOMA Wireless Networks", CMC-Computers, Materials & Continua, , published by Tech science. Vol. 63, Issue 2, pp. 1043-1064 (2020).

# Papers Presented in Programmes

Research Papers Presented in International Programmes : 8
Research Papers Presented in National Programmes : 9

1. S.Poonguzhali, T Manimekalai, "Cross Layer Design of Ad hoc networks With QoS support" presented in a National level conference on 3rd National conference for Research Scholars on Application of Emerging Technologies, India.

- 2. Tarakapraveen Uppalapati,Manimekalai T,Meenakshi M, "Cross Layer Design of Application based Dynamic Resource Allocation for MIMO-OFDM Wireless Networks" presented in a National level conference on National Conference on Advanced Communication Techniques, India.
- Rekha,T Manimekalai, "QoS based Configuration of Wireless Ooperative Network" presented in a National level conference on National Conference on VLSI and Communication, organised by Saintgits College of Engineering, Kottayam., India.
- 4. Arunsundar.S T.Manimekalai, "Throughput Analysis of wireless cooperative networks" presented in a National level conference on 4th National Conference on Signals Systems and Communication, India .
- 5. Swaminathan .K, M.Meenakshi, T.Manimekalai, "Design of Cross Layer Optimizer For Video Streaming Over Wireless Networks" presented in a National level conference on 4th National Conference on Signals Systems and Communication, India .
- 6. Princy Dinal,Koteeshwari RS,T Manimekalai Meenakshi M, "Neural Network based Throughput Maximization echniques for Cognitive Radio Wireless Networks" presented in a International level conference on International conference on Embedded Systems,ICES 2010., organised by CIT Coimbatore, India.
- 7. Abitha J., Manimekalai T.Meenakshi M, "A Cross Layer Design Strategy For Video Transmission With Priority Based Error Protection Scheme" presented in a International level conference on International Conference on VLSI and Communication, organised by Saintgits College of Engineering, India from 16-Apr-2009 to 18-Apr-2009.
- 8. T.Manimekalai, Abitha J, Meenakshi M, "A Cross Layer Design Strategy For Video Transmission with Unequal Error Protection" presented in a International level conference on 6th International Conference on Wireless and Optical Communication Networks, organised by IEEE, Egypt from 28-Apr-2009 to 30-Apr-2009.
- 9. Manimekalai T, Saravana Selvi P, Meenakshi M, "RA-SPAN Protocol for improving QoS Performance in Wireless AdHoc Networks" presented in a National level conference on First Asian Himalaya International Conference on Internet, organised by IEEE Sponsered, Nepal from 03-Nov-2009 to 05-Nov-2009.
- 10. Goldy Rishana ,Manimekalai T, "Power control for secondary users in a Cognitive Radio Network" presented in a National level conference on National Electrical and Electrical and Electronics Innovative Conference GNEESIC"12., organised by St.Xavior's Catholic College of Engineering, India from 15-Mar-2012 to 16-Mar-2012.
- 11. Farian Ishengoma, Manimekalai T, "Cooperative Spectrum Sensing Scheduling for Energy Efficienciency in cognitive radio network" presented in a National level conference on National Conference on Green Technology concept for Bridging the Digital Divide using ICT., organised by Pondicherry Engg College, India from 05-Jul-2013 to 06-Jul-2013.
- 12. Anitha S Manimekalai T, "Power Adaptive Co-operation in Underlay Cognitive Radio Networks" presented in a National level conference on National Conference on Advanced Computing and Communication Systems, organised by Government College of Technology, Coimbator 6, India from 10-Apr-2015 to 11-Apr-2015.

- 13. K P Nisha ,Manimekalai T, "RELAY BASED CELLULAR DEVICE TO DEVICE COMMUNICATION WITH BLOCKING AND INTERFERENCE ANALYSIS" presented in a International level conference on International Conference on Innovation and Emerging Trends in Engineering And Technologies, organised by Panimalar Engineering College, India from 07-May-2016.
- 14. Vidhya P V, Manimekalai T, "STUDY OF GREEN ENERGY POWERED COGNITIVE RADIO NETWORKS" presented in a International level conference on Innovation and Emerging Trends in Engineering And Technologies, organised by Panimalar Engineering College, India from 07-May-2016.
- 15. Anitha S Manimekalai T, "Power Adaptive Relay Selection and Interference Mitigation in Underlay Cognitive Radio Networks" presented in a International level conference on International Conference on Engineering, Energy and Environment,ICEEE-2017, organised by TRP Engineering College, India from 31-Mar-2017 to 02-Apr-2017.
- 16. Jayashiri S M, Manimekalai T, Laxmikandan T, Ramitha E, "Improved Tri Threshold Detection for Cooperative Spectrum Sensing in Cognitive Radio" presented in a International level conference on International Conference on InInnovation & Discoveries in Science ,Engineering & Technology, organised by KCG College of Technology, India from 17-Apr-2018 to 18-Apr-2018.
- 17. AthisayaAnushya.T , Laxmikandan T, Manimekalai T, "Dual Mode Dual Index Orthogonal Division Multiplexing Index Modulation" presented in a International level conference on 2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE), organised by VIT,Vellore, India from 24-Feb-2020 to 25-Feb-2020.

## **Current Sponsored Projects**

1. "Identification of Communication system for Situational Awareness Unit".. Project Cost: 9.95.

# Sponsored Projects Completed

1. "Prototype development of spectrum sensing unit" (March-2015 - September-2015). Project Cost: 0.25.

# **Programme Chaired**

1. Chairman, International level conference titled "International Conference on Comunication Computing & Internet of Things" conducted by Sai Ram Engineering College from 15-Feb-2018 to 17-Feb-2018.

# Programme Organized

- 1. International level conference.
- 2. Co ordinator, National level Short Course on "Transmission lines and Waveguides" from 24-May-2010 to 31-May-2010.

- 3. Co ordinator, National level workshop on "Network Simulation Tools" from 01-Mar-2013 to 02-Mar-2013.
- 4. Co Ordinator, National level workshop on "Cognitive Radio Networks Enabling Technologies And Challenges" from 08-Jan-2015 to 10-Jan-2015.
- 5. Co ordinator, National level Short Course on "Prototypiing Tools and Testbed Creation for 5G Wireless Comunication" from 02-Mar-2016 to 06-Mar-2016.

### Programme Attended

- 1. Attended a National level Short Course on "Faculty development Training programme on, "Electromagnetic Waves and Waveguides" organized by College Of Engineering Guindy, Chennai, India from 05-Dec-2005 to 17-Dec-2005.
- 2. Participated in a National level workshop on "Ad-hoc Networks" organized by Department of Information Technology MIT Campus, Anna University, Chennai., India from 22-Mar-2007 to 23-Mar-2007.
- 3. Participated in a National level workshop on "Research Challenges in Wireless and Optical Communication Networks" organized by Department of ECE,CEG campus, Anna University, , India from 30-Mar-2007 to 31-Mar-2007.
- 4. Participated in a National level workshop on "Emerging trends in VLSI and ASIC Designs" organized by Department of ECE,CEG campus, Anna University, Chennai., India from 07-Apr-2007.
- 5. Participated in a National level workshop on "Mentoring Youth And Adolescents" organized by CEG Campus, Anna University, Chennai., India from 16-May-2007.
- 6. Attended a National level Short Course on "Probability and random process, Digital communication" organized by IEEE Madras section, at IIT Madras, India from 17-Nov-2007 to 18-Nov-2007.
- 7. Attended a National level Short Course on "Digital Communicatio" organized by College Of Engineering Guindy, Chennai., India from 24-Nov-2008 to 30-Nov-2008.
- 8. Attended a National level Short Course on "EC-1451 Mobile Communication" organized by College Of Engineering Guindy, Chennai., India from 05-Dec-2008.
- 9. Participated in a International level conference on "Sixth IEEE and IFIP International Conference on Wireless and Optical Communication Networks(WOCN2009)", EGYPT from 28-Apr-2009 to 30-Apr-2009.
- 10. Participated in a National level workshop on "Next Generation Wireless Technologies-Long term Evolution(NGWT-LTE)" organized by MIT, Chennai, India from 04-Dec-2009 to 05-Dec-2009.
- 11. Attended a National level Short Course on "AICTE Sponsored Staff Development programme on" Communication Dictionary", India from 30-May-2011 to 12-Jun-2011.

- 12. Participated in a National level workshop on "ISTE Workshop on"Basic Electronics" organized by IIT Bombay, India from 28-Jun-2011 to 08-Jul-2011.
- 13. Participated in a International level workshop on "Workshop on simulation of Advanced Networks using NS-2(WSAN-11)" organized by College of Engineering Guindy, Chennai, India from 02-Dec-2011 to 03-Dec-2011.
- 14. Attended a National level seminar on "WBAN-Challenges and Enabling Technologies", India from 22-Mar-2013 to 23-Mar-2013.
- 15. Attended a National level Short Course on "Faculty Development Programme on " Digital Signal Processing" organized by MIT, Chennai, India from 17-Jun-2013 to 23-Jun-2013.
- 16. Participated in a National level workshop on "ISTE workshop on Control systems " organized by IIT KHARAGPUR, India from 02-Dec-2014 to 12-Dec-2014.
- 17. Attended a National level seminar on "Seminar on WBAN-Sensing and signal processing Challenges" organized by College of Engineering Guindy, India from 23-May-2015 to 24-Mar-2015.
- 18. Attended a International level Short Course on "Introduction to Design of Algorithms " organized by IIT KHARAGPUR, India from 25-May-2015 to 30-May-2015.
- 19. Participated in a International level workshop on "on Internet of Things (IoT)-Technology of Tomorrow" organized by College of Engineering Guindy, Chennai, India from 26-Nov-2015 to 27-Nov-2015.
- 20. Attended a International level seminar on "Change Management & Capacity Building To Improve Quality of Service" organized by College og Engineering Guindy, India from 24-Feb-2016 to 31-Dec-1969.
- 21. Attended a National level Short Course on "Characterizing and Modeling Wireless Channels" organized by NIT,Rourkela, India from 06-Jun-2017 to 10-Jun-2017.
- 22. Participated in a National level workshop on "Two week FDTP on Induction Program for Students" organized by Anna University, India from 18-Jun-2018 to 29-Jun-2018.

### **Experience Abroad**

1. Visited IEEE Sponsered, Egypt from 28-Apr-2009 to 30-Apr-2009. Purpose of visit :Presentation in Conference.