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PUBLICATION DETAILS

Books:

- K.Sumathi, V.Seetha Lakshmi, "Optimization Techniques in resource allocation of wireless Communication systems" ISBN 9783668359338, Grin Publisher, 13th December2016
- K.Sumathi, V.Seetha Lakshmi, "Certain Investigations on Energy Efficient Routing Protocol for MANET", Lambert Academic Publishing2016.
- K.Sumathi, V.Seetha Lakshmi, "Integration and Analysis of Wireless LANand WAN Over VoIP", Scholar Press,2018.
- K.Sumathi, S.Thenmozhi, V.Seethalakshmi, "K.Sumathi, S.Thenmozhi, Seethalakshmi.V, "Design and Analysis of Heptagon shaped Multi band Antenna with Multiple Notching for Wireless Applications" , CRC Press, Taylor and Francis Group, 2020 (Accepted for publication)

International Journals:

- K.Sumathi,M.Abirami,"Hexagonal shaped fractal MIMO antenna for multiband wireless applications, Analog Integrated Circuits and Signal Processing, Vol 104, issue (3), pp 277-287,July 2020**(SCI indexed)**
- K.Sumathi,"Design of 3.84 Tbps Hybrid WDM-PDM Based Inter-Satellite Optical Wireless Communication (ISOWC) System Using Spectral Efficient Orthogonal Modulation Scheme",Journal of Ambient Intelligence and Humanized Computing,pp1-9, Jan 2019 **(SCI indexed)**
- K.Sumathi, B Indhu, Janet Jesudass, A Anisha," Design of Torus and U shape slotted Ultra-Wideband Antenna for Satellite Applications", Test Engineering and Management Journal,pp 3296 – 3302, April 2020(Scopus)
- K.Sumathi, R.Udaiyakumar,"Fairness Aware Resource Allocation in Downlink MIMO-OFDMA System using NSGA-II", pp 3365 – 3374**(Scopus)**
- K.Sumathi," Multiband Ring Shaped Fractal MIMO Antenna", ICTACT Journalon Communication Technology, June 2019, Volume: 10, Issue: 02, pp1998-1993.
- K.Sumathi, "Design and Analysis of Omega Shaped Slotted Multiband Antenna", International Journal of Engineering and Advanced Technology, Volume-8 Issue-5, June 2019, pp193-197. **(Scopus)**
- K.Sumathi, M.Abirami, "Downlink Resource Allocation in OFDMA using HPSOGA and HGAPSO", International Journal of Electrical Engineering, Feb 2020
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- K.Sumathi, Sowmiya.R, "Implementation of Honey Pot Methodology against Black Hole Attack in Mobile AdHoc Network" International Journal of Electronics and

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- K.Sumathi, J.Jaslin Deva Gifty, "ZigBee Wireless Sensor Network simulation with various topologies",Proceedings of 2016 Online International Conference on Green Engineering and Technologies, IC-GET 2016 (2017)**(Scopus)**

- K.Sumathi, J.Jaslin Deva Gifty, IEEE 802 Standard Network's Comparison under Grid and Random Node Arrangement in 2.4 GHz ISM Band for Single and Multiple CBR Traffic" International Journal of Advanced Networking and Applications, Vol:8, Issue: 4,pp 3118-3123, 2017

- K.Sumathi, V.Seetha Lakshmi, Dr.M.A.Raja, "Analyzing Qos Based Stable Energy Aware Adhoc Routing Protocol With Different Mobility Models" International Journal of Advanced Engineering Technology, pp: 950-954, 2016.

- K.Sumathi, J.Jaslin Deva Gifty, "Simulation Wireless Networks with Hybrid Topology", ICTACT Journal on Communication Technology (IJCT), Volume, Issue 1, March 2016, pp: 1261-1268.

- K.Sumathi, "Compact Dual-Band Inverted L Shaped Monopole Antenna For WLAN Applications", ICTACT Journal on Communication Technology (IJCT), Volume 6, Issue 4, December 2015,pp:1182-1186.

- K.Sumathi, K.Sureshkumar, T.Sathiyapriya, D.KiruthikaGowri, "An Investigation on the Impact of Weather Modelling on Various MANET Routing Protocols ", Indian Journal of Science and Technology, Volume 8, Issue 15,2015. **(Scopus)**

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- K.Sumathi, P.Gowri, B.Divya, "Comparison of Power allocation in Cognitive Radio Networks with barrier and distribution method", International Journal of Applied Engineering Research, Volume 10, Issue 20, 2015 pp:15938-15942. **(Scopus)**

- K.Sumathi, M.L.Valarmathi, "User Based Scheduling and Resource Allocation in Downlink OFDM System with PSO and GA", International Journal of Engineering and Technology, Volume 5 Issue 5 Oct-Nov 2013 pp3676-3684. **(Scopus)**

- K.Sumathi, M.L.Valarmathi, "Joint Physical – MAC Layer Resource Allocation Approach for Heterogeneous Traffics in OFDM", Australian Journal of Basic and Applied Sciences Volume 7 Issue 14, pp 160-168,2013.

- K.Sumathi, M.L.Valarmathi, "Joint Adaptive Modulation and Multiuser Downlink Scheduling-A survey" , International Journal of Emerging Technology and Advanced Engineering, Volume 3, Issue 2, February 2013 pp:234-240.

- K.Sumathi, M.L.Valarmathi, "Fairness Aware Resource Apportionment in Downlink MIMO-OFDM Systems", European Journal of Scientific Research, Volume 71 Issue 2 Feb2012.**(Scopus)**

- K.Sumathi, M.L.Valarmathi, "Adaptive Resource Allocation in MIMO-OFDMA based on Subcarrier Allocation (SA) and (GA)", International Journal of Computer Applications , Volume 49 Issue 19, pp 43-50, July2012.

- K.Sumathi, G.Sarath Kumar, R.Sampath Kumar, "Hybrid and Distributed Intrusion Detection System using Artificial Immune System and Swarm Intelligence for Mobile Networks CiiT International Journal of Wireless Communication June 2011 DOI:

WC062011013.

International Conferences:

- K.Sumathi, Naveen.S, Murugan.V, Prasanth.T,"Design of a Two Element Band-Notched UWB MIMO Antenna using Dodecahedron Slot", Fourth International Conference on Science, technology, Engineering and Management held at KIT, Coimbatore,April 2020

- K.Sumathi, B.Tharini, K.C.Charumathy, C.Hema, "Bandwidth Enhancement of MIMO using Ring Shaped Fractal Antenna", International Conference on Science, technology, Engineering and Management, March2019

- K.Sumathi, C.Reena, "Implementation of High Performance VLSI Architecture for Advanced Encryption Standard", International Conference on Science, technology, Engineering and Management, March2019

- K.Sumathi, K.Sindhu, "VLSI Architecture for Image Compression using Single Pixel Imging", International Conference on current research in Engineering Science and Technology, April2018

- K.Sumathi, S.Mayuri,K.Surendar,M.NivethaJAss, N.MohanaSelvi, "Smart Helmet for Industrial Safety", International Conference on recent innovations in Engineering'18 , March2018

- K.Sumathi,V.Gayathri, "Design of a Low-Profile Ultra Wide Band Antenna for Microwave Imaging" , International Conference on recent innovations in Engineering'18 , March2018.

- K.Sumathi, "Detecting Black Hole attack on MANET with AODV using Fuzzy Based Rule" International Conference on Innovation in Information and Communication Systems2016.

- K.Sumathi, J.Jaslin Deva Gifty, "Zigbee Wireless Sensor Network Simulation with Various Topologies", International Conference on Innovation in Information and Communication Systems2016

- K.Sumathi, M.L.Valarmathi, P.Gowri, "Implementation of Resource Allocation for OFDM-based Cognitive Radio Networks with Proportional Fairness", International Conference on Electrical, Instrumentation & Communication Engineering Recent Trends and Research Issues (ICE2-RTRI),pp.9,2015.

- K.Sumathi, M.L.Valarmathi, B.Divya, "Implementation of Resource Allocation for Multiuser OFDM based Cognitive Radio Networks with Heterogeneous Services", International Conference on Electrical, Instrumentation & Communication Engineering Recent Trends and Research Issues (ICE2-RTRI), pp.50,2015.

- K.Sumathi, KirthikaIsruthi, "Implementation of Resource Allocation in MIMO-OFDMA Using NSGA-II", International Conference on Innovations in Information Embedded and Communication Systems, PP 130-134,2014.

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National Conferences:

- K.Sumathi, Mohanapriya, "Design and Implementation of MicrostripParellel Coupled Band Passs Filter for K Band Frequencies", National Conference on Recent Trends in Communication and Instrumentation Sytems'18, April2018.
- K.Sumathi, Sindhu "Modified Pentagonal patch Antenna for Dual band using defective ground for WiFi/WiMAX Applications" , National Conference on Modern developments with keen & renovation Technologies, March2018
- K.Sumathi, Bhaziria,"Slotted star shaped Microstrip Antenna for Multiband Applications" National Conference on Modern developments with keen & renovation Technologies, March2018
- K.Sumathi, G.Shangavi,"WLAN/WIMAX Application using Compact Triple band Monopole Antenna" ,National Conference on Modern developments with keen & renovation Technologies, March2018
- K.Sumathi, Abimathi,"OctabandMicrostrip Patch Antenna for S Band, C Band, X Band Applications" ,National Conference on Modern developments with keen & renovation Technologies, March2018
- K.Sumathi, Sowmiya.R, "A review on Routing Protocols of attacks in mobile ad-hoc networks" ISRO sponsored Two days National Level Conference on Cognitive radio Networks for Satellite and Space Communications on24.01.2017-25.01.2017
- K.Sumathi,B.Gowtham, R.Rajeswari, M.Chandra, R.Sridharan, "Performance analysis VoIP Integrated wireless LAN and WAN", National conference on communication, Networking, Technology Interventions in Human Resource Development, Mar2017
- K.Sumathi,B.Gowtham, R.Rajeswari, M.Chandra, R.Sridharan, "Performance analysis of Wireless Sensor Network Topologies using ZigBee Standard" Third National Conference on Information, Networking and Communication Technologies" on 23rd April2016
- K.Sumathi, P.Naveen Kumar, P.V.Mohan Kumar, "Automated irrigation in agricultural fields", Third National Conference on advances in computing, communication, electrical and network technologies, ACCENT-2012 06.03.2012 , Sengunthar Engineering College,2012
- K.Sumathi, P.Naveen Kumar, P.V.Mohan Kumar, "More Crop per drop in Agricultural System using Embedded System", First National Conference on Advanced Embedded and Signal Processing 01.13.2012 and 02.03.2012, Park College of Engineering and technology.
- K.Sumathi, R.Sampath Kumar, G.Sarath Kumar, "A hybrid approach for improving Load Balancing in Mobile Networks", Two Day National Conference on Emerging Trends in Computer Communication and Informatics atTamilnadu College of Engineering, Coimbatore10.03.2011-11.03.2011
- K.Sumathi, M.SwathiPriyadharshini, K.Shaaathanu, "Efficient Data Transmission Using LDPC With Trellis Decoding", Two Day National Conference on Emerging Trendsin Computer Communication and Informatics atTamilnadu College of Engineering, Coimbatore 10.03.2011-11.03.2011.
- K.Sumathi, S.Narmadha, "Similarity Based Online Feature Selection in Content based Image Retrieval", National Conference at Mepco Engineering College 14.03.2008-15.03.2008.

- K.Sumathi, K.Gayathri Devi, "A modified SPIHT algorithm –Wavelet based Image Compression Technique for reducing a MSE", National Conference on Modelling, Analysis and Simulation of Computers and Telecommunication Systems, GCE, Salem on01.03.2007-02.03.2007.
- K.Sumathi, K.Gayathri Devi, "A modified SPIHT algorithm for image coding with a joint MSE and Classification Distortion Measure", Second National Conference on Innovations in Communication and Computing, SNS College of Technology, 24.01.2007.
- K.Sumathi, "Implementation of High Speed VLSI Architecture for Parallel reed Solomon Decoder", National Conference at Sri Venkateswara College of Engineering 27.02.2004.

Patent:

- Published one patent titled "Embedded Vision Based Smart Stair Climbing wheelChair for Elderly and Differently abled Persons" under the patenting body Intellectual property rights India, 2020