



Dr. Shantharama Rai C

B. E., M.Tech, Ph.D, MISTE, MISLE

Principal & Professor

Profile: Dr. Shantharama Rai C completed his Engineering (B.E) from Mangalore University, M.Tech from N.I.T.K. surathkal and PhD from V.T.U Belgaum with specialization of power electronics and control system He also member of Indian society for technical education New Delhi and Indian society for lighting engineers New Delhi, He has served in different institutions /organizations like K.V.G. College of Engineering, Sullia, N.M.A.M. Institute of Technology, Nitte, St. Joseph Engineering College Vamanjoor and Canara Engineering college Mangalore in various capacities for more than 24 years . He has published /presented more than 50 papers in international/national journals /conferences in the field of engineering He has guided more than 50 UG projects, more than 15 PG projects. Presently he is guiding 3 PhD Students and 5 completed. The Project Guided by him Titled Generation of Electric Power from waste products using specially designed Spark Ignition Engine Awarded as Quality of very high order and obtained the Certificate of commendation from Karnataka State Council for Science and Technology, Indian Institute of Science Bangalore He also obtained more than 35 lacs grant for his research work form VTU AND AICTE NEWDELHI Dr. Shantharama Rai. C, has Participated and presented a research paper in the state of Kuwait. He was the Coordinator for the Mangalore region to assess the Quality Of Electrical Distribution Governance and Performance in Karnataka (MESCOM Region) appointed by K.S.C.S.T Bangalore for the year 2007-2008. He also executive member of different organization in Mangalore and serving to public through

many organizations Dr. Rai was also the member PhD Candidate selection, member of examination committee (BOE), MIEEE and Local inspection committee etc of Visvesvaraya Technological University Belgaum Karnataka.

ACADEMIC BACKGROUND

Ph.D - Visvesvaraya Technological University, 2011

M.Tech - National Institute of Technology, Suratkal, 2005

B.E - Mangalore University, 1998

WORK EXPERIENCE

TEACHING EXPERIENCE

A J Institute of Engineering and Technology , 26-02-2016 - till date

Canara Engineering College , 2008 - 2016

St . Joseph Engineering college , 2002 - 2008

NMAM Institute of Technology , 2000 - 2002

KVG College of Engineering , 1998 - 2000

SPECIALIZATION

Power Electronics, Control System, Soft Computing

ACHIEVEMENT - AWARDS AND RECOGNITIONS

1. Dr.Shantharama Rai.C Guided Project Titled "Bilirubinometer" Granted "Rs. 5000" from Karnataka State Council for Science and Technology, 2023
2. Dr.Shantharama Rai.C Guided Project Titled "Generation of Electric Power from waste products using specially designed Spark Ignition Engine" Awarded as "Quality of very high order" and obtained the "Certificate of commendation" from Karnataka State Council for Science and Technology ,Indian Institute of Science Karnataka State

Council for Science and Technology ,Indian Institute of
Science ,Bangalore

PUBLICATIONS

JOURNALS: 21 CONFERENCE: 18

JOURNALS

1. Design and Implementation of cryptographic Arithmetic Primitives using reversible logic and Vedic Mathematics
2. Power intelligence and Asset monitoring System
3. An efficient recognition method for pose and illumination variant faces from video sequence
4. Simulation model for electron irradiated IGZO thin film transistors[J]. Journal of Semiconductors, 2018, 39(2): 022002. doi: 10.1088/1674- 4926/39/2/022002.
5. Implementation and Analysis of Cryptographic Ciphers in FPGA: Proceedings of IEMIS 2018, Volume 1 DOI: 10.1007/978-981-13-1951-8_59, In book: Emerging Technologies in Data Mining and Information Security, pg.653-666, Springer
6. Shape model extraction approach for face recognition. International Journal of Advance Research in Science and Engineering (IJARSE). ISSN: 2278-2834 Volume 06 ,Issue 10 October,2017 pp: 1243-1258
7. IEEE Transactions on Electron Devices
TED-2016-09-1335-R entitled Analysis of 8-MeV Electron-Irradiation Induced Degradation in a-IGZO TFT'a
"Under review
8. Implementation of two light weight cryptographic algorithms, ISOR journal of Electronics and communication engineering (ISRO-JECE) e-ISSN: 2278- 2834 Volume 12 ,Issue 4 Version II (June-August,2017),PP 43-47
9. A Survey on various lightweight cryptographic algorithms on FPGA ISOR journal of Electronics and communication engineering (ISRO-JECE) e-ISSN: 2278-2834 Volume 12 ,Issue 1 Version II (Jan-Feb,2017),PP 54-59
10. Applications of Fuzzy Logic in Image Processing A Brief Study An international journal of advanced computer

- technology, 4 (3), March- 2015(Volume-IV, Issue-III, pp 1555-1559, ISSN 2320-0790
11. Fuzzy -A Comprehensive Study published in International Journal of Advance foundation and research in computer (IJAFRC) ISSN: 2348- 4853, Volume-1, Issue-10, pp 10-15
 12. Design and Modeling and simulation of a PID Controller for Buck Boost and Cuk Converter "published in International Journal of Science and Research (IJSR) ISSN(online): 2319-7064, Volume-3, Issue-5, pp 1226-1229, May 2014
 13. Image Processing Algorithms-A Comprehensive Study published in International Journal of Advanced Computer Research (IJACR) ISSN(Print): 2249-7277, ISSN(online): 2277-7970, Volume-4, No.-2 Issue- 15, pp 533-540, June 2014
 14. Design and Modeling ,simulation and analysis of V/F Controller for WECS œpublished in International Journal of Engineering Trends and Technology (IJETT) ISSN: 2231-5381, Volume-12, Issue-3, pp 141- 143, June 2014
 15. Design and Modeling of Fuzzy Logic Based Voltage Controller for an Alternator"published in International Journal of Recent Technology and Engineering (IJRTE) "ISSN: 2277-3878, Volume-2, Issue-2, pp 155-158 May 2013
 16. Fuzzy Logic Controller for the Speed Control of an IC Engine using Matlab \ Simulink published in International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878 Volume-2, Issue-2, pp 124-127 May 2013
 17. "Design of Processor Interface Module for P1750A processor using VHDL" published in International Journal of advanced and innovative research ISSN: 2278-7844/#90/, Volume-2, Issue-10, pp 90-96 October 2013
 18. Design , modelling, simulation of an IC Engine control with Fuzzy logic controller
 19. Simulation of Beam forming Solutions for High Altitude Air Bone Systems published in International Journal of Computer Applications (IJCA) Volume 47 No 10 pp 39-43. June 2012 Edition

20. Comparative Study on Angiogram Enhancement Published in International Journal of Graphics & Image Processing (IJGIP) vol 2 Issue 2. pp 166-169 may 2012 Edition
21. A Novel Controller for Biomass Based Hybrid Power System published in International journal of Engineering research and industrial applications (IJERIA), Volume 2, No V September 2009 pp 15-27

CONFERENCE

1. Implementation and Analysis of Cryptographic Ciphers in FPGA: Proceedings of IEMIS 2018, Springer Link Volume 1. 10.1007/978-981-13-1951-8_59.
2. Study of Radiation Resistance Property of a-IGZO Thin Film Transistors proceedings of IEEE International Conference On Recent Trends In Electronics Information Communication Technology, P 1816-18, 2016 publised in IEEE Explorer
3. "Analysis of electron irradiation effect on IGZO TFTs" Proceedings of the International Conference on smart materials and technologies for emerging electronics-IC-SMTEE-2016, p41 ,SCEM Mangalore 19-20 February 2016.ISBN2456-186x
4. "Density-of-states modelling of solution processed InGaZnO thin film transistors" Proceedings of the International Conference on smart materials and technologies for emerging electronics-IC-SMTEE-2016 p22 ,SCEM Mangalore 19-20 February 2016.ISBN 2456-186x
5. "Design and simulation of Fuzzy Logic Based Voltage Controller for an Alternator" published in the proceedings of National Conference on Emerging trends in Electronics and communication Engineering held on 27th April 2013 at Canara engineering college mangalore ISBN: 978-93-81195-47-5, pp 138-143
6. "A novel approach for the Speed Control of an IC Engine using fuzzy logic controller "published in the proceedings of National Conference on Emerging trends in Electronics and communication Engineering held on 27th April 2013 at Canara engineering college mangalore ISBN: 978-93-81195-47-5, pp 174-179

7. "Channel Estimation for MIMO OFDM System Using Normalized Least Mean Square Method" published in the proceedings of International Conference on Electrical and Electronics Engineering(ICEEE) at Mysore, held on 30th June 2012 ISBN: 978-93-81693-82-7, pp 171-174
8. "Performance analysis of PCA-based and LDA-based algorithms for Face Recognition" published in the procesings of 4th International Conference on Electronics Computer Technology (ICECT 2012) held at Kanyakumari, India between April 6 - 8, 2012, ISBN: 978-1-4673-1849-5, Volume 2, On Page(s): 594-600 Paper ID 540, the paper will be archived in the IEEE Xplore and indexed by Ei Compendex and ISI shortly.
9. "Increasing the productivity of automation tool by developing Socket." published in the procesings of 4th International Conference on Electronics Computer Technology (ICECT 2012) held at Kanyakumari, India between April 6 - 8, 2012, ISBN: 978-1-4673-1849-5, Volume 2, On Page(s): 601-604 Paper ID 541, the paper will be archived in the IEEE Xplore and indexed by Ei Compendex and ISI shortly.
10. "Image compression using DCT and DWT" presented in the National Conference on information science held at Manipal, 29th & 30th April 2011
11. "Modeling and Simulation of a Novel Photovoltaic Energy Conversion System Using Fuzzy Controller ", presented in the 3rd National Conference on Communication Networks (NCOCN11) held at Thrissur, Kerala On 19th March 2011
12. "Simulation And Mathamatical Modelling Of A Novel Converter Used For Solar Panel Tracker" presented in IEEE conference ICEDSP 09, to be held MIT Manipal during Dec., 2009, publishing in IEEE Explorer ,paper ID 230.
13. "Simulation And Modelling Of Flyback Converter Used For Novel Pv MPP Tracker" , presented in the National Conference held at N.M.A.M.I.T .Nitte Feb 2009
14. Sensor Based Maximum power point tracking system using Flyback converter- Accepted for publication in IEEE conference IECON06, France held during Nov. 7-10, 2006 paper ID PD-006491

15. "A novel photovoltaic power conversion system using the fly back converter" in the proceedings of Third International energy resources and development (ICERD-3) held at state of Kuwait Vol-II 2005,page no.819-823
16. "A Novel technique for photovoltaic maximum power point system" in the proceedings of 11th European conference on power electronics and applications held at Dresden Germany September 2005 pp P1-P8
17. Grid Connected Photovoltaic System, Presented in the National Conference held at N.M.A.M.I.T .Nitte May 2004
18. Dregulations in power Industries , presented in the National Conference held at N.M.A.M.I.T .Nitte May 2004

SIGNIFICANT PROJECTS

1. Modernization of DSP and Microcontroller Based Advanced Power Electronics /Real Time System Lab, AICTE, 2013, 18,00,000
2. Design and Development of Biomass Based Hybrid Power System with a Novel Controller, VTU, 2012, 7,08,000
3. Modernization of DSP and Microcontroller Based Advanced Power Electronics Lab, AICTE, 2012, 6,10,000
4. Leaf Disease Detection Using Image Processing, VTU (Innovative Project), 2020, 5,000/-
5. All-Terrain Vehicle with Portable Cold Storage for Transporting COVID Medicines, Laxmi Memorial Education Trust, 2021, 1,00,000/-

PROJECTS SUPERVISED

PHD: 3 (Completed)	5 (In Process)
PG: 15 (Completed)	- (In Process)
UG: 35 (Completed)	1 (In Process)

TEACHING LEARNING PROGRAMS

ORGANIZED: 14 PARTICIPATED: 13

ORGANIZED

1. Organized 3 day work shop Electronic circuit design @ Canara Engineering College, 23/8/2014 and 25/08/2014
2. Organized National conference on Emerging trends in Electronics and communication Engineering @ Canara Engineering College, 27th April 2013
3. Organized National conference on Emerging trends in Engineering and technology @ Canara Engineering College, 24th April 2014
4. Organized National Joint conference on Innovation in Engineering and Technology @ Canara Engineering College, 29th April 2015
5. Organized and Co-ordinated national level technical fest COLOSSEUM @ Canara Engineering College, 25th March 2011
6. Organized 3 day work shop for non teaching staff on basics of computers and electronics @ Canara Engineering College, 20-22 January 2014
7. Organized 2 day work shop on android app Development @ Canara Engineering College, 12th October and 2nd November 2014
8. Organized one day work shop Image processing using LABVIEW @ Canara Engineering College, 1st November 2014
9. Organized One day work shop Use of open source software for image processing @ Canara Engineering College, 21st September 2013
10. Organized and Co-ordinated a State level Project Exhibition Cum Competition on " Renewable energy application and Electrical Engineering Projects " @ SJEC Mangalore, 17-19 June 2005
11. Organized and Co-ordinated One day work shop on MATLAB and its Applications @ Canara Engineering College, 17th Nov 2008
12. Organized and Co-ordinated state level technical fest MAGNIFEST @ Canara Engineering College, 19th march 2010
13. Organized and Co-ordinated One day work shop on IMAGE PROCESSING and its Applications @ Canara Engineering College, 4th Nov 2010

14. Faculty Development Programme on "Emerging Trends in Signal and Image Processing Applications" @ Canara Engineering College, 27th-29th January 2011

PARTICIPATED

1. Two day work shop on Research methodology @ Visveswariah Technological University, 28th and 29th 26-28 May 2009
2. "Recent Trends On Power Electronics Circuits" @ NMAMIT Nitte, March -2005
3. Three day work shop on Nonlinear systems Theory and design @ TEQIP, 26-28February 2009
4. One day workshop on "Intellectual Property Rights " @ KSCST Bangalore and TIFAC ,Govt of India, 20th march 2008
5. 15 days Short term training program on "RECENT TRENDS ON POWER ELECTRONICS CIRCUITS " @ NMAMIT Nitte, March -2005
6. Two day Seminar on "Constitution of India and Professional Ethics" @ R.V.C.E, 11-12 august 2005
7. Three day staff development program @ SJEC Mangalore, 29th august 2005 and 31st august 2005
8. One day Work shop on "Rain Water Harvesting" @ SJEC Mangalore, 4th May 2003
9. Work shop on "INTRODUCTION TO MICROELECTRO-MECHANICAL SYSTEM TECHNOLOGY " @ N.I.T.K.Surathkal, 5th April 2003
10. STTP on "Human values in Technology" @ V.C.E.T Puttur, 25th -29th Mrch 2002
11. 32nd Annual convention and National seminar of Indian Society for Technical Education @ NMAMIT Nitte, 27-29 Dec 2002
12. Work shop on "V.L.S.I Design" @ K.L.C.E.T Belgaum, 5th and 6th October 2002
13. Work shop on "CONTROL SYSTEMS" @ R.V.C.E Bangalore, 22nd and 23rd March 2001

ADMINISTRATIVE RESPONSIBILITIES

1. Principal and Professor in E&C Department @ A J Institute of Engineering and Technology, 2016 to till date
2. Member of panel of examiners @ International center for applied Sciences , Manipal , 2015-till date
3. Member of Ph.D Selection committee of the Visvesvaraya Technological University, Belgaum (V.T.U) @ VTU, 2014-15
4. Member of Board of Examiners , Electronics and Communication Engg Board, VTU for the year 2013-2014 @ VTU, 2013-2014
5. Member for Local inspection committee (LIC) of VTU @ VTU, 2013-14 Onwards
6. Coordinator for VTU lab exams for the Mysore region @ VTU, 2013-14
7. Professor and HOD of ECE Department from Feb 2008 till 25th Feb 2016 as @ Canara Engineering College, 2008-2016

MEMBERSHIP - ACADEMIC AND PROFESSIONAL

PROFESSIONAL MEMBER

1. Member of Indian Societyfor Lighting Engineers
 2. Member of ISTE
 3. Member of IEEE
-