

Dr.JANAKI.G, M.E. (PED), Ph.D
No.3/129, Bajanai Koil St.,
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Mangadu (Via), Chennai – 602 101.



OBJECTIVE:

Seeking an opportunity to work as a Successful and cooperative Engineer in your esteemed Organization in the field of Power Electronics and Drives and contribute towards the development of Top line commercially viable products.

ACADEMIC CREDENTIALS:

- Completed Ph.D. in Faculty of Electrical Engineering at Anna University Chennai during November 2015. Title of the thesis is “Conducted Emission Analysis on Buck-Boost DC-DC Converter Using Different Firing Techniques”
- Post-Graduation at PSG College of Technology, Coimbatore TN in 2004 with a CGPA of 9.26 specializations in power Electronics and Drives.
- Graduate of Engineering from Madras University, Chennai, TN in 2001 with 76.7% specialization in Electrical and Electronics.
- Diploma from State Board, TN in 1998 with 85% specialization in Electrical and Electronics.
- HSC from the State Board, TN in 1995 with 70.75%
- SSLC from the State Board, TN in 1993 with 84%

WORK EXPERIENCE:

- Worked as Lecturer in Electrical and Electronics Engineering Department from 1st August 2001 to 26th July 2002 in Velammal Engineering College, Chennai-66, TN, India.
- Worked as Lecturer in Electrical and Electronics Engineering Department from 09.06.2004 to 04.04.2005 in Velammal Engineering College, Chennai-66, TN, India.
- Joined Sri Muthukumaran Institute of Technology as Lecturer in Electrical and Electronics Engineering Department from 27.06.2005 and currently working as HOD In-charge of EEE department to till date.

WORK ACHIEVEMENTS:

- Produced 100% results in the University Exam for the Subjects
 - Power Electronics (UG)
 - Power Quality (UG)
 - Flexible AC Transmission Systems (UG & PG)
 - Soft Computing Techniques (PG)
 - Analysis and Design of Inverters (PG)
- Produced 98% results in the University Exam for the Subjects
 - Electromagnetic Theory (UG)
 - Measurements and Instrumentation (UG)
 - Electrical Machines – II (UG)
 - Neural Networks and Fuzzy Logic (UG)
- Guided around 25 UG Projects and 8 PG Projects.
- Organized 4 National Conferences, around 50 Workshops, Seminars, Symposia etc.
- Received Rs.5000/- cash award and certificate from IEEE Madras Section for the best Student Branch for five consecutive years.
- Successfully conducted Value Added Course on ANSYS, Electrical CADD, Embedded C, MATLAB etc., for III and IV year EEE Students.

- Guided 5 innovative Projects and also one project won II place in the project competition conducted by Nalvithaigal at IIT Madras during the year 2014.

RESPONSIBILITIES UNDERGONE:

- Served as R & D Co-ordinator
- Served as IEEE Student Branch Counselor of SMIT
- Served as AEEE Treasurer of SMIT
- Served as IEEE Treasurer of SMIT
- Served as ISO Coordinator for Electrical and Electronics Engineering Department in Velammal Engineering College.

BOOK PUBLISHED:

- ❖ Published a Book titled “**Power Electronics and Drives**” in collaboration with **Eswar Press – The Science and Technology Book Publishers**, T.Nagar, Chennai- 600 017.

PAPERS PUBLISHED:

International Journal	National Journal	International Conference	National Conference
2	1	8	6

International Conference: 8

1. K. G.Aravindini, G.Janaki, “Real Time Rescue in Railways using Sensor Networks”, in International conference on science and innovative engineering, organized by Jawahar College of Engineering, pp44, 5th and 6th April 2014. (This Paper won the BEST PAPER Award in the conference)
2. G.Janaki, A.Senthil Kumar, “Exploration of EMI in Buck Boost Converter – A Real time Approach” was published and presented in the International Conference on Advancements in Automation and Control – ICAAC 2014 organized by Syed Ammal Engineering College, Ramanathapuram held on 11th and 12th April 2014.
3. G.Janaki, A.Senthil Kumar, “Generation of Randomized Firing Signals using FPGA to Hold Back EMI in Buck Converter under Various Load Conditions”, was published and presented in International Conference on Circuit Power and Computing Technologies – ICCPT 2014 organized by Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay held on 21st and 22nd March 2014.
4. G.Janaki, A.Senthil Kumar, “An Experimental Approach to Analyze the Performance of Buck Boost Converter Using Randomized Firing Techniques” was published and presented in the International Conference Renewable Energy and Sustainable Energy – ICRESE’13 on 05.12.2013 & 06.12.2013 at karunya University, karunya nagar, Coimbatore, pp- 77.
5. G. Janaki, E.Vijaya, “ Modeling and Analysis of Buck Boost Converter using ORCAD/ PSPICE”, International Conference on Futuristic Trends in Electronics Engineering organized by Thiruvalluvar College of Engineering and Technology, in association with International Society of Automation (ISA) held on 2nd and 3rd March 2013.
6. G. Janaki, M.Citharthan, “Reduction of conducted EMI in buck converter by proper selection of firing scheme based on load conditions”, Inter National Conference on Science and Innovative Engineering - ICSIE 2012, organized by Organization of Science and Innovative Engineering and Innovative Engineering & Technology (OSIET), Chennai in assication with Lord Venkateswaraa Engineering College on 31st March 2012.
7. G. Janaki, S.R.Paranjothi, "Modeling and simulation of Electromagnetic conducted emission due to Buck converter", International conference on Power Control and Embedded Systems - ICPCES – 2010, Anna University Chennai, 8th – 10th December 2010.
8. G. Janaki, S.R.Paranjothi, “Suppression Techniques for Conducted Emission in Power Converters – A Literature Survey”, IEEE - Women in Engineering Congress, Bangalore, October 2009.

National Conference: 6

1. G.Janaki, S.Ajith Kumar, “Optimal Location and sizing of Multi Type Facts Devices using Hybrid

Differential Evolution with Biogeography based Optimization (DEBBO) Algorithm”, National Conference on Emerging Trends in Electronics, Instrumentation and Control (EtEIC-2014) on 3rd May 2014.

2. K.G.Aravindini, G.Janaki, “Real Time Rescue in Railways using Sensor Networks”, National level embedded system conference, organized by Department of EEE, Regional Centre of Anna University, Tirunelveli in association with Society of Embedded Engineering held during 27th and 28th March 2014.
3. G.Janaki, E.Vijaya, “Design and Implementation of Adaptive Controller for DC to DC converter”, National Conference on Advances in Electrical Energy Applications AEEA 2013 held on 3rd and 4th January 2013 at Velammal Institute of Technology, Panchetti.
4. G.Janaki, E.Vijaya, “Harmonic Analysis of Buck Boost Converter for Different Randomization Schemes using MATLAB”, National Conference on Electrical Systems and Renewable Energy” (NESR-13) held on 3rd May 2013.
5. G.Janaki, M.Citharthan, “EMI reduction in power converter by adaptive firing scheme based on load conditions”, National Conference on TAPSPEE’12, 19th April 2012.
6. G.Janaki, M.Citharthan, “Reduction of conducted EMI in buck converter by proper selection of firing scheme based on load conditions”, National Conference on Recent trends in power electronics & power Systems, organized by RMK Engineering College on 10th March 2012, PP .180-184.

International Journal: 2

1. G.Janaki, S. Ajith Kumar, “ Optimal Location and Sizing of Multi – Type FACTS Devices using Differential Evolution Algorithms”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering”, ISSN (print): 2320-3765, ISSN (Online): 2278 – 8875, Vol.2, Issue 9, September 2013. **IF: 1.686**
2. G.Janaki, A.Senthil Kumar, “Exploration of EMI in Buck Boost Converter – A Real time Approach”, Applied Mechanics and Materials Journal ISSN print: 1660-9336, ISSN CD: 1660-9336, ISSN web: 1662-7482, Vol. 573, Vol. titled: Advancements in Automation and Control Technologies, Switzerland, pp. 78-82, June 2014.

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National Journal: 1

1. Mrs. G. Janaki, Mr.S.Suresh Kumar, PSG College of Technology, Coimbatore & Dr. Sisir . K. Das, Head of EMC Division,SAMEER CEM Chennai. “EMI analysis of SMPS and its Suppression Technique”, EMC Journal (India)

AREAS OF PROFESSIONAL INTERESTS:

- ✓ EMI & EMC
- ✓ Power Converters
- ✓ Power Quality
- ✓ Drives & Control

PROFICIENCY IN TEACHING:

- Electro Magnetic Theory
- Power Electronics & Drives
- Computer Aided Design of Power Electronics
- Neural Network and Fuzzy Logic
- FACTS

PROJECT WORK DONE:

Ph.D Thesis Title:

“Conducted Emission Analysis on Buck-Boost DC-DC Converter Using Different Firing Techniques”

Description: This research work focuses on analyzing the EMI effects of DC to DC power converters under different dynamic load conditions with different randomized modulation techniques and also evaluated the Electro Magnetic Compatibility (EMC) based on CISPR 11 EMC standards.

M.E. Project:

“Design and Development of an EMI Filter for SMPS” in SAMEER Centre for Electromagnetics, Chennai – 600 113.

Description: An EMI Filter is designed and developed for Switched Mode Power Supply (SMPS) by the proper analysis conducted emission into the Power Lines from the SMPS as per CISPR standard in order to get Power Compatibility.

U.G. Project:

“TRI PWM Automatic Voltage Regulator” in Chennai Port Trust (Container Yard), Chennai – 600 001.

Description: The output of the Alternator is maintained constant by controlling the firing angle of Thyristor using PWM Technique. In order to increase the efficiency of the AVR, 3 PWM circuits are used to control the power circuit. The pulse width is varied according to the output voltage. Also, it provides protection against over heating, over loading & single phasing to the control board.

Diploma Project:

“Universal Starter” in Murugappa Polytechnic, Chennai.

Description: It is used to start both single and three phase ac as well as dc motors. It is provided with over current and over voltage protection circuit. Reversing the direction of rotation is also possible. Jogging and inching can also be done.

COMPUTER PROFICIENCY:

Languages : C, C++
Packages : PSpice, Matlab (Simulink), LabVIEW, Multisim, Xilinx ISE
Platform Used : WINDOWS XP, MS-DOS

CO-CURRICULAR ACTIVITIES:

- Organized and Participated in “Project Exhibition” in National Level Technical Symposium conducted at Velammal Engineering College, Chennai – 600 066.

INPLANT TRAINING:

- Undergone 2 weeks training in GEC ALSTOM, Pallavaram in the areas of Relays, Control Panels and Circuit Breakers
- Undergone 2 weeks training in Lucas TVS, Chennai in PLC's and CNC Machines.

WORKSHOP ATTENDED:

- ✓ Attended a seminar on "India - Agilent Measurement Seminar (AMS 2011)" arranged by Agilent Technologies India Pvt. Ltd., held during 26th August 2011 at Hotel Taj Connemara, Chennai.
- ✓ Attended Workshop on **Electromagnetic Interference and Compatibility** held in Chennai, India during December 2009 conducted by Society of EMC Engineers (India).
- ✓ Attended Workshop on **Electromagnetic Interference and Compatibility** held in Chennai, India during December 2003 conducted by Society of EMC Engineers (India).

SHORT TERM COURSE ATTENDED:

- ❖ Attended a two weeks AICTE Sponsored Staff Development Programme on "Embedded Systems and its application to Power Electronics" from 12th December to 23rd December 2011 organized by the Department of EEE, Velammal Engineering College, Chennai.
- ❖ Participated Short-term course on **Recent Trends in High Voltage Testing Techniques** conducted in **IIT Madras** sponsored by **AICTE** through **ISTE**.

SEMINARS GIVEN:

- ❖ Gave a seminar presentation titled "EMC in High Speed Design" on 19th December 2011 in an AICTE Sponsored Staff Development Programme on "Embedded Systems and its application to Power Electronics" organized by the Department of EEE, Velammal Engineering College, Chennai.
- ❖ Gave a seminar presentation titled "SMART GRID" for 3rd and Final Year EEE Students of Sri Venkateswara Institute of Technology, Thiruvellore on 3rd January 2012.
- ❖ Gave a seminar presentation titled "Embedded Systems and Silicon Brains" for the faculty members of Sri Muthukumaran Institute of Technology, Chennai.

ACHIEVEMENTS:

- ❖ Got Best Lecturer Award
- ❖ Got Rs.5000/- Cash Award for Best Performance in M.E. for the academic year 2003 – 2004 from Directorate of SC & ST Welfare Association, Tamilnadu.

PERSONAL PROFILE:

Father's Name : A.Gopalakrishnan
Spouse Name : B.Karthikeyan
Date of Birth : 22.06.1978
Marital Status : Married
Languages Known : Proficient in Tamil, English, and Hindi
Interests : Gardening, Listening music, Reading Books

I, JANAKI.G do hereby confirm that the information given above is true to the best of my knowledge.

Date: 27.12.2015

Place:Chennai

SIGNATURE: 