



Dr.G.Renuka Devi

Associate Professor
Electrical & Electronics Engineering
Manakula Vinayagar Institute of Technology,
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Professional Objective:

To serve as a professional educator. To constantly upgrade knowledge and skills for exploring new areas of research. To develop methodologies to enhance teaching learning process. Serve to create good technical and ethical human resource.

Career profile:

Dr.G.Renuka Devi, Associate Professor in the Department of Electrical and Electronics Engineering has 14.5 years of teaching and research experience in Multi-Phase Inverter fed Induction Motor Drives and Renewable energy sources. She has published 17-International journal papers, 8-International conference paper and 2-National conference paper (Google Scholar Citations: 136, h-index: 8, i-10 index: 8). She is an active member in IEEE, SESI, IEE and ISTE. Her field of interest is Power Electronics, Drives and Control, AI Techniques and Control System.

Educational qualification:

Ph.D.,

Title : Performance Investigations of Multi-Phase Induction Motor Drives for High Power Applications
University : Pondicherry Engineering College/Pondicherry University

Post Graduate-M.Tech.,

Specialization : Electrical Drives & Control
University : Pondicherry Engineering College/Pondicherry University

Under Graduate –AMIE.,

Course : Electrical Engineering
University : The Institution of Engineers (INDIA)

DIPLOMA

Course : Electrical and Electronics Engineering
College : Muthiah Polytechnic College

Work experience:

Sl. No.	Employer	Designation	Period of Service		Nature of Work
			From	To	
1	Manakula Vinayagar Institute of Technology Puducherry.	Associate Professor	01-07-2016	Till Date	Teaching
2	Manakula Vinayagar Institute of Technology, Puducherry.	Assistant Professor	20-05-2015	30-06-2016	Teaching
3	Jeppiaar Institute of Technology, Chennai.	Assistant Professor	01-07-2013	28-04-2015	Teaching
4	Dr.Pauls Engineering College, Tindivanam.	Lecturer	18-06-2009	04-11-2009	Teaching
5	Krishnasamy Memorial Polytechnic College, Cuddalore.	Lecturer	18-06-1998	21-08-2007	Teaching

Teaching Activities: (Subjects Taught)

(i) Under Graduate :

Sl.No Subject Handled

1. Linear Integrated Circuits
2. Control System Engineering
3. Electrical Drives and control
4. EVS
5. Basic electrical and electronics engineering (I-Year)
6. Control System (II Year - ECE)
7. Transmission & Distribution
8. Electrical Engineering & Instrumentation (II Year - ECE)
9. Control System Engineering
10. Discrete Time Systems & Signal Processing
11. Electrical & Electronics Engineering (II Year - Mech)
12. Linear Control System (LCS)
13. Electrical Machine Design (EMD)
14. Analog and Digital Integrated Circuits

(ii) Post Graduate: NIL

(iii) Laboratories handled:

Sl.No Laboratories handled

1. BEEE lab
2. Electrical & Electronics lab(Mech)
3. Linear Integrated Circuits lab
4. Electrical Machines-I lab
5. Electrical Machines-II lab
6. Electronic Devices & Circuits lab
7. Electronics-III lab

Consultancy and Sponsored Research activities:

Name of the Scheme	Project Title	Duration	Amount Sanctioned	Status Completed/* Ongoing
Seminar Grant-CSIR	“Recent Trends In Hybrid Power Generation”	30-06-2017 to 01-07-2017	25,000/-	Completed
ISTE SF-STTP	“Design & Development of Power Electronic Converters”	17-12-2018 to 21-12-2018	Self Financing	Ongoing

Major tasks handled:

To carry out research, teaching special lectures and organizing guest lectures and internal workshops within the Department, especially in the area of Electrical & Electronics Engineering.

Paper Publications / Presentation:

	Published	Accepted	Communicated	Total
International Journal	17	-	2	19
National Journal	-	-	-	-
International Conference	08	-	1	09
National Conference	02	-	-	02

Reviewer for the journals:

- Reviewer of IEEE Transactions of Power Electronics.
- Reviewer of International Journal of Engineering.

Research guidance: NIL

Project Guidance: 25

Guest Lectures delivered: NIL

Professional Membership:

- Active Member of IEEE
- Active Member of IEEE Industrial Electronics Society
- Active Member of IEEE Power Electronics Society
- Life Member of Solar Energy Society of India (SESI)
- Associate Member of The Institution of Engineers India (IEI)
- Life Member of Indian Society for Technical Education (ISTE)

Details of publications:

a) International Journals: (17)

1. G.Renuka Devi and K. Rajambal, "Field Programmable Gate Array Implementation of Space-Vector Pulse-Width Modulation Technique for Five-Phase Voltage Source Inverter," *IET Power Electronics*, Vol. 7, Issue. 2, IEEE PES, pp. 376-389, Feb 2014(Impact factor-3.547,SCI)
2. G.Renuka Devi and K. Rajambal, "Experimental Investigation of Indirect Field Oriented Control of Field Programmable Gate Array Based Five-Phase Induction Motor Drive," *World Academy of Science, Engineering and Technology International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering*, Vol.10, No.4, pp. 778-789, October-2016 (International Science Indexed)
3. G.Renuka Devi and K. Rajambal, "Modeling and Analysis of Multi-Phase Inverter-fed Induction Motor Drive with Different Phase Numbers," *WSEAS Transaction of System and Control*, Vol. 8, No. 3, pp. 73-80, July 2013 (Scopus Indexed)
4. G.Renuka Devi and K. Rajambal, "Performance Investigation of Multi-Phase VSI with Simple PWM Switching Techniques," *International journal of Engineering*, Vol. 26, No. 3, pp. 289-296, March 2013 Impact Factor-1.098,Scopus Indexed)
5. G.Renuka Devi and K. Rajambal, "Generalized d-q model of n-phase induction motor drive," *International journal of electrical engineering, World Academy of Science, Engineering and Technology*, Vol. 6, No. 9, pp. 1216-1225, 2012 (International Science Indexed)
6. M.Sowmiya and G.Renuka Devi, "Speed Control of 5-Phase Induction Motor Drive using Model Reference Adaptive System," *International Journal of Advanced Scientific and Technical Research*, Vol. 6, No. 7, pp. 41-52, Nov.- Dec. 2017.
7. G.Renuka Devi, "Performance investigations of 7-phase Inverter fed Induction Motor Drive," *International Research Journal of Engineering and Technology*, Vol.3, No. 5, pp. 694-699, May 2016.
8. G.Renuka Devi, "Comparative Analysis of Different Space Vector Switching Scheme for Five-Phase Voltage Source Inverter," *International Research Journal of Engineering and Technology*, Vol.3, No. 5, pp.700-707, May 2016.
9. G.Renuka Devi, T.Daranirajan, K.Gowrisankar and K.Suryakumar, "Open loop response of an Inverter fed three-phase induction motor drive," *International Journal of Electrical & Electronic Engineering & Telecommunications*, Vol. 1, No. 1, pp. 148-153, March 2015
10. G.Renuka Devi, M.P. Mohan Kumar, and Anup Sethumadhavan, "Modeling And Analysis of 5-Level H-bridge Inverter-Fed Switched Reluctance Motor," *International Journal of Electrical & Electronic Engineering & Telecommunications*, Vol. 1, No. 1, pp.228-234, March 2015
11. G.Renuka Devi, M.P. Mohan Kumar, and Anup Sethumadhavan, "Comparative Analysis of Different n-level inverter," *International Journal of Electrical & Electronic Engineering & Telecommunications*, Vol. 1, No. 1, pp. 72-78, March 2015
12. G.Renuka Devi, M.Sowmiya and K.Rajambal "IFOC of a Nine Phase Induction Motor Drive," *International Journal of Engineering Science and Innovative Technology*, Vol.2, No. 3, pp. 72-78, May 2013.
13. G.Renuka Devi and K.Rajambal "Performance Evaluation of SV PWM Technique for 7-Phase VSI," *International Journal of Engineering Research & Technology*, Vol.2, No. 10, pp. 1954-1959, Oct 2013.

14. G.Renuka Devi and K.Rajambal “FPGA implementation of SVPWM technique for seven-phase VSI,” *International Journal of Electronics and Electrical Engineering*, Vol.1, No. 4, pp. 275-280, Dec 2013.
15. G.Renuka Devi and K.Rajambal “Novel Carrier-Based PWM technique for n-Phase VSI,” *International Journal of Energy Technologies and Policy*, Vol.1, No. 3, pp. 1-9, 2011.
16. G.Renuka Devi and K.Rajambal “Modeling, Analysis and Control of Hexagram Inverter for Three-Phase Induction Motor Drive,” *International Journal of Control Theory and Informatics*, Vol.1, No. 1, pp. 14-24, 2011.
17. G.Renuka Devi and K.Rajambal “Design, Modeling and Performance Investigation of GC PVGS,” *International Journal of Energy Technologies and Policy*, Vol.2, No. 1, pp. 12-23, 2011.

b) International Conference: (8)

1. G.Renuka Devi and K. Rajambal, “Generalized model of multi-phase induction motor drive using matlab/simulink,” *Innovative Smart Grid Technologies, Kerala, India (ISGT India)*, IEEE PES, pp.114-119, Dec.1,3- 2011.
2. G.Renuka Devi and K.Rajambal, “Comparison of different PWM schemes for n-phase VSI,” in *IEEE International Conference on Advances in Engineering, Science and Management (IEEE-ICAESM 2012)*, Nagapattinum, India, pp. 559 – 564, March 30,31- 2012.
3. G.Renuka Devi and K.Rajambal, “SVPWM Strategy for Five-Phase VSIs,” *International conference on Recent Trends in Computational Methods Communication and Controls (ICON3C’12)*, Tirunelveli, India, pp. 1 – 6, April 4-2012.
4. G.Renuka Devi and K.Rajambal, “FPGA Implementation of SVPWM Technique for Asymmetrical Six-Phase VSI,” *IEEE International Conference on Emerging Trends in Electrical Engineering and Energy Management -ICETEEEM 2012, AVIT, Chennai*, pp. 333 – 338, Dec.13,15- 2012.
5. G.Renuka Devi, M.Sowmiya and K.Rajambal, “IFOC of Five-Phase Induction Motor Drive,” *IEEE International Conference on Power, Energy and control, PSNA College of Engineering and Technology, Dindigul* . pp. 304 – 309, Feb.6-8, 2013.
6. G.Renuka Devi and K.Rajambal, “ Comparative Analysis of 5th Harmonic Injection and SVPWM Technique for Five-Phase VSI,” *IEEE – International Conference on Research and Development Prospectus in Engineering and Technology -ICRDPET 2013, EGS pillay Engineering College, Nagapattinum, Vol. 2*, pp. 92 – 97, March 29,30-2013.
7. G.Renuka Devi and K.Rajambal, “Novel PWM Technique for nth Harmonic Injection for N-phase VSIs,” *IEEE – International Conference on Computation of Power, Energy Information&Communication (ICCPEIC-13)*, Adhiparasakthi Engineering College, Melmaruvathur. April 17, 18-2013.
8. G.Renuka Devi and K. Rajambal, ” Closed loop control of Hexagram Inverter,” *International Conference on Electrical Energy Systems & Power Electronics In Emerging Economics ICEESPEEE 09*, SRM Engg College, Chennai, pp.1241-1248, 16-17 Apr. 2009.

c) National Conference :(2)

1. G.Renuka Devi and K. Rajambal, “Hexagram Inverter for Electric Vehicle Applications,” *National conference on Applied Power Electronics 2009 in NIT, Rourkela*, pp.90-97, 01-2009.
2. G.Renuka Devi and K. Rajambal, “Comparative Analysis of Different Switching Techniques for n-Phase Voltage Source Inverter,” *National Conference on Recent Trends in Modern Electronics and its Applications in Jeppiaar Institute of Technology, Chennai*, pp.179-184, Jan 29 & 30, 2015.

FDP/STTP/Workshops attended: 26

a) Faculty Development Programme Attended: (11)

1. Attended one week AICTE-ISTE Induction/Refresher program on “Smart Grid, IoT, Green Computing-The future of Energy Intelligence” at Manakula Vinayagar Institute of Technology, Puducherry from 16th July 2018 to 21st July 2018.
2. Attended one week NITTTR-Chennai Quality Improvement Programme on “ICT Applications for Quality Improvement in Higher Education” at Dr.MGR Educational Research Institute, Chennai from 07th May 2018 to 11th May 2018.
3. Attended one week STC on “Application of Micro Grid in Distributed Generation together with Clean Energy Technology (MGCET)” at Pondicherry Engineering College, Puducherry from 29th Jan 2018 to 02nd Feb 2018.
4. Attended one week STC on “Smart Grid and Clean Energy Technologies (SGCET)” at Pondicherry Engineering College, Puducherry from 11th Dec 2017 to 22nd Dec 2018.
5. Attended one week AICTE-ISTE ISTE- STTP on “Contemporary World of Electricity” at Manakula Vinayagar Institute of Technology, Puducherry of Technology from 27th Nov 2017 to 01st Dec 2017.
6. Attended two days Faculty Development Programme on “Recent Trends on Renewable Energy & Power Electronics Using MATLAB” at AMET University, Chennai from 15th Sep 2017 to 16th Sep 2017.
7. Attended two days Faculty Development Programme on “Solar Energy- Technology & Products” at Manakula Vinayagar Institute of Technology, Puducherry of Technology from 09th June 2016 to 10th June 2016.
8. Attended Faculty Development Programme on “Application of Intelligent Controllers” at IEEE Madras Section & IEEE Student Branch of Jeppiaar Engineering College, Chennai on 30th Oct 2015.
9. Attended three days Faculty Development Programme on “Advanced Teaching Techniques” at ICT Training Academy, puducherry, Chennai from 10th June 2015 to 12th June 2015.
10. Attended four days Faculty Development Programme on Soft-Skill Management” at Jeppiaar Institute of Technology, Chennai, Chennai from 14th June 2014 to 17th June 2014.
11. Attended one week Faculty Development Programme on “Sustainable Energy Technologies for the Future Generation” at Pondicherry Engineering College, Puducherry, from 25th Nov 2013 to 29th Nov 2014.

b) Workshops Attended: (15)

1. Attended the IEEE Sponsored workshop on “Industrial Automation using IoT” at Manakula Vinayagar Institute of Technology, Puducherry on 7th July 2018
2. Attended one day workshop by Pondicherry HR circle on “Energy conservation and its methodologies” at Manakula Vinayagar Institute of Technology, Puducherry on 19th Nov 2017
3. Attended two days Seminar on “Recent Trends in Hybrid Power Generation” at Manakula Vinayagar Institute of Technology, Puducherry from 30th June 2017 to 1st July 2017.
4. Attended two days Workshop on "Basics of solar PV system and components" at Anna University, Chennai from 03rd June 2016 to 04th June 2016.
5. Attended two days Workshop on “IPR Research Methodology & Awareness” at Karpaga Vinayaga College of Engineering, Chennai from 27th May 2016 to 28th May 2016.
6. Attended one day Workshop on “writing Scientific Research Paper” at SSN College of Engineering, Chennai on 27th Nov 2015.
7. Attended one day Workshop on Solar Energy Systems- Opportunities, Challenges & Deployment” at Anna University, Chennai, on 31st Aug 2015.
8. Attended One Day National Workshop on “LaTeX” at Jeppiaar Institute of Technology, Chennai on 25th Mar 2015.
9. Attended one day National Workshop on “R & D Project Proposals – Awareness, Needs and Benefits” at Anna University, Chennai, on 26th Feb 2014.
10. Attended one day Lecture on “ Energy Conservation Techniques for Induction Motor Drives” at SSN College of Engineering, Chennai on 06th Oct 2014.
11. Attended Two day Lectures on “How to do a good Ph.D. thesis” at Anna University, Chennai from 23rd Nov 2013 to 24th Nov 2013.
12. Attended National level one day workshop on “Industrial automation” at Jeppiaar Institute of Technology, Chennai on 23rd Aug 2013.
13. Attended National Workshop on “Control of power converters with FPGA using MATLAB XILINX interface” at SSN College of Engineering, Chennai on 22nd March 2013.
14. Attended author Workshop conducted by Springer and Edanz “How to Write for and Get Published in Scientific Journals and Publish Manuscripts” at Anna University, Chennai on 29th Jan 2013.
15. Attended one week 32nd APAN Meeting- ERNET India at Ministry of Communications & information Technology, New Delhi from 22nd Aug 2011 to 25th Aug 2011.

Google Scholar Citations :

<https://scholar.google.com/citations?user=sjR0IRwAAAAJ&hl=en>



G.Renuka Devi

FOLLOWING

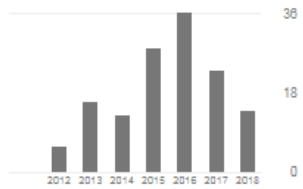
Associate Professor, Dept. of EEE, Manakula Vinayagar Institute of Technology,
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Renewable Energy Power Electronics Drives and Control AI Techniques and Control ...

TITLE	CITED BY	YEAR
Generalized model of multi-phase induction motor drive using matlab/simulink G Renukadevi, K Rajambal Innovative Smart Grid Technologies-India (ISGT India), 2011 IEEE PES, 114-119	31	2011
Field programmable gate array implementation of space-vector pulse-width modulation technique for five-phase voltage source inverter G Renukadevi, K Rajambal IET Power Electronics 7 (2), 376-389	23	2013
Generalized dq model of n-phase induction motor drive G Renukadevi, K Rajambal International Journal of Electrical, Computer, Energetic, Electronic and ...	20	2012
IFOC of five-phase induction motor drive M Sowmiya, G Renukadevi, K Rajambal Proc. International Conference on Power Energy and Control (ICPEC)	18	2013
Novel carrier-based PWM technique for n-phase VSI G Renukadevi, K Rajambal International Journal of Energy Technologies and Policy 1 (3), 1-9	12	2011
Comparison of different PWM schemes for n-phase VSI G Renukadevi, K Rajambal Advances in Engineering, Science and Management (ICAESM), 2012 International ...	11	2012
Modeling and analysis of multi-phase inverter fed induction motor drive with different phase numbers G Renukadevi, K Rajambal Transactions on Systems and Control 8, 73-80	10	2013
Performance investigation of multi-Phase VSI with simple PWM switching techniques G Renukadevi, K Rajambal International Journal of Engineering-Transactions C: Aspects 28 (3), 289-296	8	2012
Novel PWM technique for n th harmonic injection for N-phase VSIs G Renukadevi, K Rajambal Computation of Power, Energy, Information and Communication (ICPEIC), 2013 ...	3	2013
FPGA Implementation of SVPWM Technique for Seven-Phase VSI G Renukadevi, K Rajambal International Journal of Electronics and Electrical Engineering 1 (4), 275-280	1	2013
FPGA implementation of SVPWM technique for asymmetrical six-phase VSI G Renukadevi, K Rajambal Emerging Trends in Electrical Engineering and Energy Management (ICETEEEM ...	1	2012

Cited by

	All	Since 2013
Citations	138	130
h-index	8	8
i10-index	7	6



Co-authors

EDIT

No co-authors