

**Dr.S.ALBERT ALEXANDER**  
 ASSISTANT PROFESSOR SENIOR GRADE  
 DEPARTMENT OF ELECTRICAL & ELECTRONICS  
 KONGU ENGINEERING COLLEGE  
 PERUNDURAI 638 052  
 ERODE DISTRICT, TAMILNADU, INDIA.



**A) ACADEMIC PROFILE:**

Programme	School/ College/Board/ University	Month and Year of passing	Percentage
Ph.D. (Electrical Engineering)	Anna University, Chennai	2014	--
Title of the thesis: <b>“PERFORMANCE ENHANCEMENT OF SOLAR FED CASCADED MULTILEVEL INVERTER USING NEW AND EXISTING TECHNIQUES”</b>			
M.E. (Power Electronics and Drives)	Mepco Schlenk Engineering College, Sivakasi. Anna University	July 2007	83.72% <b>Anna University Rank</b>
Title of the project: <b>“DESIGN, SIMULATION AND IMPLEMENTATION OF UPS INVERTERS USING ANN CONTROLLERS”</b>			
B.E. (Electrical and Electronics Engineering)	C.S.I.College of Engineering Ketti, The Nilgiris district. Bharathiar University	April 2004	77.18%
Title of the project: <b>“ANN BASED ELIMINATION OF INRUSH CURRENTS IN TOROIDAL TRANSFORMERS”</b>			
H.S.C. (Higher Secondary Course)	St.Antony’s Hr. Sec. School, Coonoor-643 101 The Nilgiris District	March 2000	80.5%
S.S.L.C. (Secondary School Leaving Certificate)	St.Antony’s Hr. Sec. School, Coonoor-643 101 The Nilgiris District	April 1998	81.6%

**AREAS OF INTEREST:**

- Power Electronics
- Power Quality
- Renewable Energy Sources
- Intelligent Techniques and its implementation

## B) EXPERIENCE & WORK SUMMARY: (9.6 YEARS)

- Presently working as a Assistant Professor (Senior Grade) in Kongu Engineering College, Perundurai from December 1, 2011 to till date
- Worked as a Assistant Professor in Kongu Engineering College, Perundurai from August 1, 2010 to November 30, 2011
- Worked as a Lecturer in Kongu Engineering College, Perundurai from June 15, 2007 to July 31, 2010
- Worked as a Lecturer in M.Kumarasamy College of Engineering, Karur from 07.06.2004 to 18.05.2005

## C) RESEARCH AND DEVELOPMENT:

### RESEARCH PROJECTS:

**Principal Investigator** for the research project titled, "Design and Development of Multilevel Inverters for power quality improvement in renewable energy sources", Sponsored by Department of Science and Technology (Government of India), Amount: **Rs.52.75 lakhs**, Duration: 3 years. (Ref. No. DST/TSG/NTS/2009/98 dated 22.10.2010). Status: Completed successfully.

**Principal Investigator** for the Major research project titled, "Design and Development of Cascaded multilevel inverters for Photo Voltaic applications", Sponsored by University Grants Commission (Government of India). Amount: **Rs.9.23 lakhs**, Duration: 3 years. (Ref. No. 39-552/2010(SR) dated 10.01.2011). Status: Completed successfully.

**Investigator** for the project titled "An Intelligent Controller design for power quality improvement in renewable energy sources", Sponsored by ICT Academy of Tamilnadu (Government of Tamilnadu). Amount: **Rs.6000**, Duration: 6 months. Status: Completed successfully.

### PRODUCTS DEVELOPED:

- a) Solar PV inverter with single chip controller for multiple pulse generation
- b) Solar PV inverter with improved reliability
- c) Solar PV inverter with reduced harmonic distortions
- d) Solar PV inverter for speed control of induction motor
- e) Solar PV inverter with synchronization capability

All the above-mentioned inverters (a)-(e) are designed and implemented for a 3kWp solar PV plant for power quality improvement and tested successfully.

### PUBLICATIONS:

#### BOOKS PUBLISHED

1. Gnanvadivel.J, Karthikeyan.J, Albert Alexander.S (2009) "Special Electrical Machines", Anuradha Publishers, Third Edition.

#### INTERNATIONAL JOURNALS

1. Albert Alexander.S, (2015), "Development of Solar Photovoltaic Inverter with Reduced Harmonic Distortions Suitable for Indian Sub-Continent", *International Journal of Renewable & Sustainable Energy Reviews*, Vol.56, pp.694-704, (Elsevier). (Impact factor: 5.90).

2. Albert Alexander.S, (2015), "Development of high performance solar photovoltaic inverter with reduced harmonic distortions", accepted for publication in *International Journal of Electronics (Taylor and Francis)*. (Impact factor: 1.64).
3. Albert Alexander.S, Manigandan.T (2015), "Modeling and Analysis of Modular Multilevel Converter for Solar Photovoltaic Applications to Improve Power Quality", *IET Transactions on Renewable Power Generation*, Vol.9, No.1, pp.78-88, January 2015. (Impact factor: 2.28)
4. Albert Alexander.S, Manigandan.T (2015), "Optimal Harmonic Stepped Waveform Technique for Solar fed Cascaded Multilevel Inverter", *Journal of Electrical Engineering and Technology*, Vol.10, No.1, pp.261-270, January 2015. (Impact factor: 0.579)
5. Albert Alexander.S, Manigandan.T (2014), "Design and Development of Digital Control Strategy for Solar Photovoltaic Inverter to Improve Power Quality", *Journal of Control Engineering and Applied Informatics*, Vol.16, No.4, pp.20-29, December 2014. (Impact factor: 0.338)
6. Albert Alexander.S, Manigandan.T (2014), "Power Quality Improvement in Solar Photovoltaic System to Reduce Harmonic Distortions using Intelligent Techniques", *Journal of Renewable and Sustainable Energy*, ISSN 1941-7012, Vol.6, Issue. 4, pp. 043127 (1)-(19), June 2014.(Impact factor:1.51)
7. Albert Alexander.S, Manigandan.T (2014), "Reduction of Voltage Harmonics in Solar Photovoltaic fed Inverter of Single phase Stand Alone Power System" *Journal of Solar Energy Engineering- Transactions of the ASME*, Vol.136, No.4, pp.044501 (1)-(4), November 2014. (Impact factor:1.329)
8. Albert Alexander.S, Haritha.K P (2014), "Output voltage regulation techniques for solar fed cascaded multilevel inverter", *International Journal of Advanced Information Science and Technology*, Vol.23, No.23, pp.67-73, March 2014. (Impact factor:3.564)
9. Albert Alexander.S, Manigandan.T (2014), "Digital control strategy for solar photovoltaic fed inverter to improve power quality", *Journal of Renewable and Sustainable Energy*, ISSN 1941-7012, Vol.6, Issue. 1, pp. 013128 (1)-(18), January 2014. (Impact factor: 1.51)
10. Albert Alexander.S, Manigandan.T (2013), "Modelling and Simulation of Artificial Neural Network based Harmonic Elimination Technique for Solar - Fed Cascaded Multilevel Inverter", *International Review on Modelling and Simulations*, ISSN 1974-9821, Vol.6, No.4, pp. 1048-1055, August 2013. (ICV 5.94)
11. Albert Alexander.S, Karthikeyan.J (2008) "Multiple Feedback loop control strategy for UPS Inverters using Artificial Neural Networks", *International Journal of Applied Engineering Research*, ISSN 0973-4562, Vol. 3, No.5, pp. 649 – 658, May 2008.

#### **NATIONAL JOURNAL**

1. Albert Alexander.S, Karthikeyan.J (2008) "Applications of Artificial Neural Networks in Power Electronics", *KASC Journal of Computer Science*, Volume 2, Issue 3, pp. 603-618.

#### **INTERNATIONAL CONFERENCES**

1. Albert Alexander.S & Shanmuga Aravind P (2013) "Harmonic Minimization of a Solar fed Cascaded H Bridge Inverter using Artificial Neural Network", *Proceedings of International Conference on Energy Efficient Technologies for Sustainability*, pp.163-167, March 2013.

2. Albert Alexander.S, Manigandan.T, Shanmuga Aravind P & Deepak Kumar.M (2013) "Modeling and Simulation of Solar Photovoltaic's using MATLAB", Proceedings of International Simulation Conference of India, Indian Institute of Technology, Madras, 21-23 February 2013.
3. Albert Alexander.S, Manigandan.T, Deepak Kumar.M & Vishnu Vardhan R (2012) "A comparison of simulation tools for Power Electronics", Proceedings of First International Simulation Conference of India, Indian Institute of Technology, Bombay, 02-04 February 2012.
4. Albert Alexander.S, Manigandan.T,(2011) "Analog Control Scheme for Cascaded Multilevel Inverters using Multiple carrier PWM technique", Proceedings of International Conference on Recent Advancements in Electrical, Electronics and Control Engineering, Mepco Schlenk Engineering College, Sivakasi,15–17 December 2011.
5. Albert Alexander.S, Manigandan.T & Saranya.E, (2011) "Fault Detection and Diagnosis of Cascaded multilevel inverter using ANN", Proceedings of Second International Conference on Science and Technology, VIT University, 21-22 April 2011.
6. Albert Alexander.S, Manigandan.T, (2009) "Digital Switching Scheme for Cascaded Multilevel inverters", Proceedings of Third International Conference on Power Systems, Indian Institute of Technology, Kharagpur, 27-29 December 2009.
7. Albert Alexander.S, Karthikeyan.J, Sivavasath.A, (2007) "Applications of Artificial neural networks in Power Electronics", Proceedings of International Conference on Computational Intelligence and Multimedia Applications, Mepco Schlenk Engineering College, Sivakasi, 13–15 December 2007.
8. Albert Alexander.S, Sivavasath.A, (2007) "Design, Simulation and Implementation of UPS inverters using Artificial Neural Network Controller", Proceedings of International Conference on Trends in Industrial Measurements and Automation, National Institute of Technology, Trichy, 4 -6 January 2007.

## **NATIONAL CONFERENCES**

1. Albert Alexander.S, Vivekanandhan.M (March 2012) "Various Switching Techniques for Solar fed Cascaded Multilevel Inverter", Proceedings of Samanway National Student Conference, Indian Institute of Science, Bangalore.
2. Albert Alexander.S, Karthikeyan.J, (May 2009) "Implementation of Cascaded Multilevel Inverters", Proceedings of National Conference on Recent Trends in Electrical and Communication Technologies, METS School of Engineering, Mala, Thrissur.
3. Albert Alexander.S, (February 2008) "Zero Voltage switching of Half bridge DC-DC converter with modified PWM control", Proceedings of Fourth National Conference on cutting edge technologies in Power conversion and Industrial drives, Bannari Amman Institute of Technology, Sathyamangalam.
4. Albert Alexander.S, Sivavasath.A, (February 2007) "UPS inverter using neural network controller", Proceedings of First National Conference on Emerging trends in power systems 2007, K.L.N. College of Engineering, Pottapalyam, Sivagangai.
5. Albert Alexander.S, Sivavasath.A, (March 2007) "Artificial neural network controller for UPS inverter applications", Proceedings of National Conference on Innovative strategies on power systems and power electronics drives, Sona college of Technology, Salem.

6. Albert Alexander.S, (September 2006) "Artificial Neural Networks", Proceedings of National Level Convention VIBRANZ'06 organized by ISTE staff & students chapter of Mepco Schlenk Engineering College, Sivakasi and secured FIRST place.
7. Albert Alexander.S, Suresh.S, (February 2006) "Multilevel inverter based on multistage connection of three level converters scaled in power of three", Proceedings of National Conference on Power Electronics and Power Systems, Mepco Schlenk Engineering College, Sivakasi.

#### COURSES ORGANISED:

- ❖ Organized a BRNS (Board of Research in Nuclear Sciences, Government of India) Sponsored two day National Seminar on "**Research Issues on Photovoltaic cells in Renewable Energy Sources**" during 15-16 December, 2010. Sanction Letter No.: 2010/17/34/52-BRNS/1552 dated 01.10.2010 and Amount: Rs.40,000/-.
- ❖ Organized a two day National Workshop on "**Computational Intelligent Techniques and its Applications (CITA 2013)**" during 30-31 August 2013.
- ❖ Organized Anna University approved faculty development programme on "**Intelligent Control**" during 15-21 May 2014.
- ❖ Organized a two day National Workshop on "**Advanced Controller design for power electronic converters in renewable energy systems using MATLAB and DSPACE (ACD 2014)**" during 09-10 September 2014.
- ❖ Organized a two day National Workshop on "**Design and Implementation of advanced Controllers for renewable energy systems using MATLAB and DSPACE (RES 2015)**" during 12-13 March 2015.
- ❖ Organized a two day National Workshop on "**Power Quality issues and its improvement techniques using intelligent controllers**" during 03-04 September 2015.
- ❖ Organized a one day National seminar on "**Challenges and Research perspectives in Renewable Energy Systems**" on 30 September 2015.
- ❖ Organized a one day National seminar on "**Writing effective research papers for SCI journals and preparing project proposals**" on 08 January 2016.

#### NON FORMAL COURSES CONDUCTED:

S. No.	Title	Period
1	SIMULATION AND PCB DESIGNING USING ORCAD (35*)	11.2.2008 to 07.03.2008
2	SIMULATION AND DESIGN OF PCB USING ORCAD (32*)	23.06.2008 to 30.06.2008
3	INTRODUCTION TO MATLAB PROGRAMMING (41*)	18.02.2010 to 22.03.2010
4	MATLAB PROGRAMMING (29*)	29.07.2010 to 24.08.2010

\*-denotes No. of students

**TRAINING / WORKSHOP ATTENDED:**

<b>S.No.</b>	<b>Title</b>	<b>Venue</b>	<b>Period</b>
1.	Embedded Systems on Chip	National Institute of Technology, Trichy.	6,7 Jan 2007
2.	Variable speed drives	Kongu Engineering College, Erode.	13,14 Sept 2007
3.	C Programming	Kongu Engineering College, Erode.	3-12 Dec 2007
4.	Power Electronics and FPGA	Vi Microsystems, Chennai	12-18 June 2008
5.	Research Issues in Image Processing	Kongu Engineering College, Erode.	20,21 June 2008
6.	Applications of Digital Variable speed drives	Kongu Engineering College, Erode.	15,16 Nov 2008
7.	Advanced Electrical Machines & DSP Processors	MET'S School of Engineering, Thirssur.	06 Dec 2008
8.	Recent Trends in Digital and Embedded Controller for Power Converters and Drives	Mepco Schlenk Engineering College, Sivakasi.	17-19 Sept 2009
9.	Computational Intelligence for Automation	Kongu Engineering College, Erode	08,09 Oct 2009
10.	Advanced optimal control techniques	Kongu Engineering College, Erode	19,20 Nov 2009
11.	Hands on training on signal processing using MATLAB	Kongu Engineering College, Erode	30,31 Jul 2010
12.	Bio inspired Computing- Research and application	Kongu Engineering College, Erode	18,19 Feb 2011
13.	Solar PV Installations	PSG College of Technology, Coimbatore	17-19 Mar 2011
14.	Power Quality Issues and Improvement	PSG College of Technology, Coimbatore	28-29 Sep 2012
15.	Soft Skills	CII, Erode	28 Nov 2012
16.	Renewable Energy Systems	PSG College of Technology, Coimbatore	7-8 Dec 2012

**D) AWARDS & RECOGNITIONS:****AWARDS:**

- Received "**BEST FACULTY AWARD**" (2010) from Kongu Engineering College on 06.04.2010
- Received "**BHARATH EXCELLENCE AWARD**" (2011) from Friendship Forum of India, New Delhi
- Received "**BEST ACADEMIC RESEARCHER AWARD**" (2012) from ASDF, Pondicherry on 30.12.2012
- Received "**P.K.Das Memorial BEST FACULTY AWARD**" (2013) from Nehru Group of Institutions on 15.12.2013

- Finalist for “**BEST TECHNO FACULTY AWARD**” (2014) from ICT Academy of Tamilnadu, Government of Tamilnadu
- Received “**FUTURON AWARD FOR BEST INNOVATION IN RENEWABLE ENERGY**” (2014) for the innovation titled, “*High Performance Solar Inverter with Reduced Harmonic Distortions*”
- Received “**SENIOR EDUCATOR & RESEARCHER AWARD**” (2014) from National Foundation for Entrepreneurship Development, India on 05.08.2014
- Received “**BEST TECHNO FACULTY AWARD**” (2015) from ICT Academy of Tamilnadu, Government of Tamilnadu
- Received “**YOUNG ENGINEERS AWARD**” (2015) from The Institution of Engineers (India), Kolkata
- Received “**YOUNG SCIENTISTS AWARD in Power Electronics**” (2015) from Venus International Foundation, Chennai
- Received “**ISTE SAYED SAJID ALI NATIONAL AWARD FOR OUTSTANDING RESEARCH IN THE FIELD OF RENEWABLE ENERGY**” (2016) from Indian Society for Technical Education, New Delhi on 10.01.2016

#### RECOGNITIONS:

- **Approved Supervisor** under Anna University, Chennai. No.2530020
- **Editor** of *International Journal of Power Electronics and Drive Systems* (IJPEDS, ISBN: 2088-8694).
- **Co Editor** of *WSEAS Transactions on Systems*
- **Tamilnadu State Coordinator** for Energy Conservation Society
- **Secured Anna University Rank** in M.E. (Power Electronics and Drives)
- Recipient of Mepco Schlenk Engineering College Alumni Award
- Won **THIRD prize** in the ANURAGAM - National Level Competition on "HOW TO TEACH EASILY" (2011)
- Received a **SPECIAL PRIZE** (2013, 2014 and 2015) from Korean Institute of Power Electronics, Korea for the contribution to *Journal of Power Electronics*
- **Conference Chair** (2014) for the *International Congress on Control Systems*, Bangkok, Kingdom of Thailand
- Judge for **THINK QUEST INTERNATIONAL COMPETITION 2011** conducted by ORACLE Think Quest Education foundation and judged the entries for the APPLICATION DEVELOPMENT EVENT.
- Referee for Visiting **Student Research Programme - 2012**, Conducted by the National Centre for Radio Astrophysics of the TIFR, Pune.
- **City Coordinator** for Rio+22 Power India Program under IARC Centre for United Nations

#### REVIEWER (Conferences):

2011 International Symposium on Business, Engineering and Industrial Applications (ISBEIA2011), Malaysia, 25-28 September 2011

37th Annual Conference of the IEEE Industrial Electronics Society (IECON 2011), Australia, 7-10 November 2011

The 11<sup>th</sup> WSEAS/IASME International Conference on Electric Power Systems, High Voltages, Electric Machines (POWER'11), Malaysia, 3-5 October 2011

2nd International Conference on Electric Power, Signals, Control & Computation, (EPSICON'12), Vidya Academy of Science & Technology, Thrissur, 3-6 January 2012

International Conference on Advances in green energy, Mar Baselos College of Engineering and technology, Thiruvananthapuram, December 17-18, 2014

1<sup>st</sup> International Conference on Power and Energy Systems: Towards Sustainable Energy (PESTSE 2016), Amrita School of Engineering, Bengaluru, March 13-15, 2016

**REVIEWER (Journals):**

<b>Sl. No</b>	<b>Name of the Journals</b>	<b>Period</b>
1.	IEEE Transactions on Industrial Electronics	from 15 <sup>th</sup> Jan 2010
2.	International Journal of Electric power components and systems	from 16 <sup>th</sup> Oct 2010
3.	International Journal of Artificial Intelligence and Expert Systems	from 20 <sup>th</sup> Oct 2010
4.	International Journal of Power Electronics (Korea)	from 26 <sup>th</sup> Oct 2010
5.	International Journal of Computer Applications	from 5 <sup>th</sup> Nov 2010
6.	International Journal of Advanced Computer Science and Applications	from 18 <sup>th</sup> Nov 2010
7.	International Journal of Computer Science Issues	from 8 <sup>th</sup> Dec 2010
8.	TELKOMNIKA: Indonesian Journal of Electrical Engineering	from 12 <sup>th</sup> Jan 2011
9.	IEEE Transactions on Education	from 21 <sup>st</sup> Mar 2011
10.	Journal of Photovoltaics: Research and Applications	from 24 <sup>th</sup> May 2011
11.	Journal of Soft computing and Engineering	from 3 <sup>rd</sup> Aug 2011
12.	IEEE Transactions on Power Electronics	from 21 <sup>st</sup> Aug 2011
13.	IEEE Transactions on Energy Conversion	from 1 <sup>st</sup> Mar 2012
14.	International Journal of Advanced Research in Artificial Intelligence	from 4 <sup>th</sup> Mar 2012
15.	European Transactions on Electrical Power	from 12 <sup>th</sup> Mar 2013
16.	Journal of Engineering Science & Technology	from 11 <sup>th</sup> Sept 2013
17.	Journal of Renewable and Sustainable Energy	from 20 <sup>th</sup> Sept 2013
18.	COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic	from 07 <sup>th</sup> Aug 2015
19.	IEEE Transactions on Neural Networks and Learning Systems	from 06 <sup>th</sup> Sept 2015
20.	IEEE Transactions on Sustainable Energy	from 02 <sup>nd</sup> Oct 2015



## INVITED TALKS DELIVERED:

**Delivered a lecture** on “ARTIFICIAL NEURAL NETWORK TOOLBOX USING MATLAB” in a DIT Sponsored Seminar on “Artificial Neural Networks”, organised by Department of Computer Technology, Kongu Engineering College, Perundurai on 20.09.2008 (SESSION: I)

**Delivered a lecture** on “SPECIAL ELECTRICAL MACHINES” in a one day seminar organised by Department of Electrical and Electronics Engineering, Association, Annai Mathammal Sheela Engineering College, Namakkal on 18.07.2009.

**Session chair** for the 5<sup>th</sup> National Conference on Intellectual Perspectives on Intelligent Control (IPIC 2010) on 25.03.2010 at Annai Mathammal Sheela Engineering College, Namakkal.

**Delivered a lecture** on “FUNDAMENTALS OF FUZZY LOGIC AND ITS IMPLEMENTATION IN MATLAB” in a ICMR Sponsored Seminar on “Applications of Fuzzy sets in medical field” organised by Department of Mathematics, Kongu Engineering College, Perundurai on 27.05.2010 (SESSION:II).

**Delivered a lecture** for the two day workshop on “FUNDAMENTALS OF MATLAB FOR ELECTRICAL ENGINEERS” organised by Department of Electrical and Electronics Engineering, P.A. College of Engineering and Technology, Pollachi on 17-18 July 2010.

**Delivered a lecture** on “MRI BRAIN IMAGE SEGMENTATION USING FUZZY BASED SYSTEMS” in a ICMR sponsored seminar on “Computerized diagnosis via medical images using artificial Intelligent techniques” Organised by Department of Electronics and Instrumentation Engineering, Kongu Engineering College, Perundurai on 04.09.2010.

**Delivered a lecture** on “FUNDAMENTALS OF ARTIFICIAL NEURAL NETWORKS” in a CSIR sponsored seminar on “Applications of Wavelets for signal modeling” Organised by Department of Electrical and Instrumentation Engineering and Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 17.09.2010.

**Delivered a lecture** on “SOLAR ENERGY CONVERSION USING POWER ELECTRONICS” in a BRNS sponsored seminar on Research issues on Photovoltaic cells in Renewable energy sources organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 15.12.2010.

**Delivered a lecture** on “MATLAB FOR ELECTRICAL ENGINEERS” in a one day workshop organised by Association of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 19.01.2011.

**Delivered a lecture** on “RESEARCH ISSUES ON ARTIFICIAL NEURAL NETWORKS” and “HANDS ON TRAINING ON NEURAL NETWORK TOOL BOX IN MATLAB” (Lab Session) in a two day workshop on “Soft Computing using MATLAB” organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 28.01.2011.

**Delivered a lecture** on "MATLAB SIMULATIONS FOR RENEWABLE ENERGY SYSTEMS" in a MNRE sponsored seminar on "Soft Energy techniques for rural electrification" organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 11.02.2011.

**Session chair** for the 6<sup>th</sup> National Conference on Intellectual Perspectives on Intelligent Control (IPIC 2011) on 11.03.2011 at Annai Mathammal Sheela Engineering College, Namakkal.

**Delivered a lecture** on "CONSERVATION OF RENEWABLE ENERGY SOURCES" in a AICTE sponsored faculty development programme on "Emerging trends in Green Chemistry" organised by Al Ameen Engineering College, Erode on 02.06.2011.

**Delivered a lecture** on "RESEARCH ISSUES ON DESIGN OF INTELLIGENT CONTROLLERS FOR ELECTRICAL DRIVES" in a two day National seminar on "Electrical Drive Controls for Industrial Applications and their Future Trends" organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 17.12.2011.

**Delivered a lecture** on "RESEARCH ISSUES ON NEURAL NETWORKS AND FUZZY LOGIC AND ITS IMPLEMENTATION IN MATLAB" in a two day National seminar on "Applications of Soft Computing in Data Mining" organised by Department of Information Technology, Kongu Engineering College, Perundurai on 07.01.2012.

**Delivered a lecture** on "EMPOWERING EFFECTIVE COMMUNICATION SKILLS FOR PLACEMENT" in a two day National Workshop on "Enhancing the Employability for Engineers" organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 09.07.2012.

**Delivered a lecture** on "IMPLEMENTATION OF NEURAL NETWORKS, FUZZY LOGIC AND GENETIC ALGORITHMS IN MATLAB (Theory and Practical)" in a two day National Workshop on "MATLAB and its Applications" organised by Department of Electronics and Instrumentation Engineering, Kongu Engineering College, Perundurai on 20.07.2012 and 21.07.2012.

**Delivered a lecture** on "INTRODUCTION TO SOLAR ENERGY CONVERSION SYSTEM USING POWER ELECTRONICS" & "MAXIMUM POWER POINT TRACKING ALGORITHMS" & "SIMULATIONS OF RENEWABLE ENERGY SYSTEMS IN MATLAB" {3 SESSIONS} in a TNSCST sponsored two day National workshop on "Power Electronics for Renewable Energy System" organised by Department of Electrical and Electronics Engineering, Muthayammal Engineering College, Rasipuram on 14.08.2012.

**Delivered a lecture** on "IMPLEMENTATION OF SOFT COMPUTING TECHNIQUES FOR RENEWABLE ENERGY SOURCES" and "POWER QUALITY ISSUES IN RENEWABLE ENERGY SOURCES" in a CSIR sponsored two day National Seminar on "Application of Soft Computing Techniques to Renewable Energy" organised by Department of Electrical and Electronics Engineering, Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode on 18.12.2012.

**Delivered a lecture** on "RECENT TRENDS IN SOLAR ENERGY CONVERSION SYSTEMS" in a MNRE sponsored National Seminar on "Renewable Energy Technologies" organised by Department of Electrical and Electronics Engineering, Muthayammal Engineering College, Rasipuram on 23.01.2013.

**Delivered a lecture** on "FUNDAMENTALS OF NEURAL NETWORKS AND ITS IMPLEMENTATION IN MATLAB FOR MEDICAL IMAGE PROCESSING APPLICATIONS" in a CSIR sponsored National Workshop on "Computational Intelligence System Based on Fuzzy Logic in Medical Diagnosis and Bioinformatics" organised by Department of Computer Technology (UG), Kongu Engineering College, Perundurai on 01.02.2013.

**Delivered a lecture** on "RECENT TRENDS IN SOLAR ENERGY CONVERSION SYSTEMS" in a Guest lecture organised by Students Association of Department of Electrical and Electronics Engineering, Erode Sengunthar Engineering College, Thudupathi on 07.02.2013.

**Delivered a lecture** on "FUNDAMENTALS OF OPTIMIZATION TECHNIQUES AND ITS IMPLEMENTATION IN MATLAB" in a two day National seminar on "Soft Computing Applications using MATLAB" organised by Department of Information Technology, Kongu Engineering College, Perundurai on 08.02.2013

**Delivered a lecture** on "NEURAL NETWORKS- CONCEPT, ALGORITHMS AND IMPLEMENTATION FOR POWER SYSTEM APPLICATIONS" in a one day National Workshop on "Optimization Algorithms in Power System Engineering" organised by Department of Electrical and Electronics Engineering, Sri Krishna College of Technology, Coimbatore on 11.03.2013.

**Delivered a lecture** on "PROBLEM FORMULATION AND IMPLEMENTATION OF OPTIMIZATION ALGORITHMS" in a ISTE-SRM sponsored short term training program on "Sparse theory & applications to signal and Image Processing" organised by Department of Electronics and Instrumentation Engineering, Kongu Engineering College, Perundurai on 03.05.2013.

**Delivered a lecture** on "POWER ELECTRONICS FOR RENEWABLE ENERGY SYSTEMS" in a ISTE sponsored short term training program on "Power Electronics and Drives – Technology Advances, Trends and Applications" organised by Department of Electrical and Electronics Engineering, Mar Baselios College of Engineering & Technology, Nalanchira, Trivandrum, Kerala on 11.06.2013.

**Delivered a lecture** on "ENERGY CONSERVATION IN COMPUTING" in a CSIR sponsored national seminar on "Energy Aware Computing", organised by Department of Information Technology, Kongu Engineering College, Perundurai on 14.06.2013.

**Delivered a lecture** on "RECENT TRENDS IN SOLAR ENERGY CONVERSION- Issues and Challenges" in a CSIR sponsored national seminar on "Concentrated Photovoltaic's- Methodologies, Issues and Challenges", organised by Department of Mechanical Engineering, Kongu Engineering College, Perundurai on 05.07.2013.

**Delivered a lecture** on "BIOMASS- Potential and recent Innovations" in a MNRE sponsored two day National Seminar on "Energy from Waste" organised by Department of Electrical and Electronics Engineering, Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode on 17.07.2013.

**Delivered a lecture** on "ADVANCED CONTROL TECHNIQUES FOR ELECTRICAL MACHINE DRIVES" in a DRDO sponsored two day National Seminar on "Recent Advances in Power Electronics Technology for Electrical Machine Drives" organised by Department of Electrical and Electronics Engineering, Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode on 30.07.2013.

**Delivered a lecture** on "NEW RESOURCES FOR POWERING THE FUTURE ENERGY PRODUCTION" in a MNRE sponsored two day National seminar on "Investigation on Energy Efficient Magnetic Generators for Future Power Needs" organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 01.08.2013.

**Delivered a lecture** on "RENEWABLE ENERGY SYSTEMS" in a Guest lecture organised by Students Association of Department of Electrical and Electronics Engineering, Coimbatore Institute of Engineering and Technology, Coimbatore on 02.08.2013.

**Delivered a lecture** on "MODELLING AND SIMULATION OF SOLAR PHOTOVOLTAICS" in a CSIR sponsored two day workshop on "Renewable Energy Modelling and Environmental protection" organised by Department of Electrical and Electronics Engineering, Sri Krishna College of Technology, Coimbatore on 14.08.2013.

**Delivered a lecture** on "IMPLEMENTATION OF GENETIC ALGORITHM, NEURAL NETWORKS, PSO AND ACO ALGORITHMS USING MATLAB" in a two day workshop on "Soft Computing Techniques using MATLAB" organised by Department of Information Technology, Kongu Engineering College, Perundurai on 27.08.2013.

**Delivered a lecture** on "IMPLEMENTATION OF ANN AND OPTIMIZATION TECHNIQUES USING MATLAB" in a two day workshop on "Computational Intelligent Techniques and its Applications" organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 30.08.2013.

**Delivered a lecture** on "PARTICLE SWARM OPTIMIZATION AND ANT COLONY OPTIMIZATION ALGORITHMS USING MATLAB" in a two day workshop on "Applications of soft Computing Techniques using MATLAB" organised by Department of Information Technology, Kongu Engineering College, Perundurai on 03.09.2013.

**Delivered a lecture** on "PROBLEM FORMULATION AND IMPLEMENTATION OF OPTIMIZATION TECHNIQUES" in a DBT sponsored two day workshop on "Gene expression data analysis using machine learning and soft computing techniques." organised by Department of Computer Science Engineering, Kongu Engineering College, Perundurai on 07.09.2013.

**Delivered a lecture** on "SOFT COMPUTING TECHNIQUES FOR POWER ELECTRONICS AND DRIVES" in a one day Workshop organised by Department of Electrical and Electronics Engineering (PG), Sri Ramakrishna Engineering College, Coimbatore on 26.09.2013.

**Delivered a lecture** on "OPTIMIZATION TECHNIQUES USING MATLAB" in a CSIR sponsored National Workshop on "Computational Intelligence system based on neuro fuzzy logic in medical diagnosis and bioinformatics" organised by Department of Computer Technology (UG), Kongu Engineering College, Perundurai on 01.10.2013.

**Delivered a lecture** on "RECENT TRENDS IN POWER ELECTRONICS" in a Guest lecture organised by Department of Electrical and Electronics Engineering Association, K.Ramakrishnan College of Technology, Trichy on 05.10.2013.

**Delivered a lecture** on "INTRODUCTION TO OPTIMIZATION TECHNIQUES" in a seminar organised by Institution of Engineers (India) Students Chapter, Department of Information Technology, Nandha Engineering College, Perundurai on 21.10.2013.

**Delivered a lecture** on "FUNDAMENTALS OF FUZZY LOGIC AND ITS IMPLEMENTATION IN MATLAB" in a CSIR sponsored two day national seminar on "RECENT TECHNIQUES IN FUZZY IMAGE PROCESSING" Organized by Department of Science and Humanities, P.A. College of Engineering, Pollachi on 29.10.2013.

**Delivered a lecture** on “FUNDAMENTALS OF FUZZY LOGIC AND ITS IMPLEMENTATION IN MATLAB FOR POWER ELECTRONICS APPLICATIONS” in a one day national workshop on “FUZZY BASED CONTROLLERS FOR POWER ELECTRONICS AND DRIVES” Organized by Department of Electrical and Electronics Engineering (PG), Paavai Engineering College, Pachal on 09.11.2013.

**Delivered a lecture** on “POWER ELECTRONICS FOR RENEWABLE ENERGY SOURCES” in a DRDO sponsored two day National Seminar on “Power Electronics for Industrial Applications and Renewable Energy Conversion” organised by Department of Electrical and Electronics Engineering, Vivekanandha College of Engineering for Women, Tiruchengode on 29.01.2014.

**Delivered a lecture** on “RECENT TRENDS IN RENEWABLE ENERGY SOURCES” in a seminar organised by Department of Electrical and Electronics Engineering Association, VSB College of Engineering Technical Campus, Kinathukadavu, Coimbatore on 01.02.2014.

**Delivered a lecture** on “GENETIC ALGORITHM AND ITS APPLICATION USING MATLAB” in a two day National seminar on “Research applications using MATLAB” organised by Department of Electronics and Instrumentation Engineering, Kongu Engineering College, Perundurai on 06.02.2014.

**Delivered a lecture** on “POWER ELECTRONICS FOR RENEWABLE ENERGY SOURCES” in a Two day national workshop on “Advanced power electronics and motor simulation techniques” organised by Department of Electrical and Electronics Engineering (PG), Sri Ramakrishna Engineering College, Coimbatore on 22.02.2014.

**Delivered a lecture** on “DESIGN OF INTELLIGENT CONTROLLERS FOR RENEWABLE ENERGY SYSTEMS” in a guest lecture organized by Department of Electrical and Electronics Engineering Association, Hindustan University, Chennai on 12.03.2014.

**Delivered a lecture** on “EFFICIENCY POWER PRODUCTION FROM BIOMASS” in a CSIR sponsored two day National Seminar on “High Efficiency Power Production from Biomass and Waste” organised by Department of Electrical and Electronics Engineering, Vivekanandha College of Engineering for Women, Tiruchengode on 03.04.2014.

**Delivered a lecture** on “POWER AMPLIFIERS AND ITS ANALYSIS” in a Anna University Chennai sponsored Faculty development training programme on “Electronic Devices and Circuits” organised by Department of Electrical and Electronics Engineering, Muthayammal Engineering College, Rasipuram on 07.06.2014.

**Delivered a lecture** on “ADVANCED CONTROLLERS FOR ELECTRICAL DRIVES” in a Anna University Chennai sponsored Faculty development training programme on “Electrical Drives and Control” organised by Department of Electrical and Electronics Engineering, P.A. College of Engineering and Technology, Pollachi on 18.06.2014.

**Delivered a lecture** on “SIMULATION OF POWER ELECTRONICS AND DRIVES CIRCUITS” in a one day workshop organised by Department of Electrical and Electronics Engineering (PG), P.A. College of Engineering and Technology, Pollachi on 12.07.2014.

**Delivered a lecture** on “SIMULATION AND ANALYSIS OF POWER SYSTEM” in a one day workshop organised by Department of Electrical and Electronics Engineering, Vivekanandha Institute of Engineering and Technology, Tiruchengode on 24.07.2014.

**Delivered a lecture** on “GENETIC ALGORITHM AND ITS APPLICATIONS USING MATLAB” in a two day seminar on “Research applications using MATLAB” organized by Department of Electronics and Instrumentation Electronics Engineering, Kongu Engineering College, Perundurai on 01.08.2014.

**Delivered a lecture** on “NEURAL NETWORKS AND ITS IMPLEMENTATION USING MATLAB” in a two day seminar on “Research applications using MATLAB” organized by Department of Information Technology, Kongu Engineering College, Perundurai on 06.09.2014.

**Delivered a lecture** on “INTELLIGENT CONTROLLER DESIGN FOR RENEWABLE ENERGY SYSTEMS USING MATLAB & DSPACE” in a two day workshop on “Advanced Controller design for power electronic converters in renewable energy systems using MATLAB and DSPACE” organized by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 09.09.2014.

**Delivered a lecture** on “RECENT TRENDS IN POWER ELECTRONICS” in a Guest lecture organised by Department of Electrical and Electronics Engineering Association, K.Ramakrishnan College of Technology, Trichy on 27.09.2014.

**Session chair** for the International Congress on Control Systems held at Holiday Inn Silom, Bangkok, Kingdom of Thailand during 19-21 November 2014.

**Delivered a lecture** on “FUZZY LOGIC AND ITS IMPLEMENTATION USING MATLAB” in a two day workshop on “Applications of Computational Intelligence Techniques using MATLAB” organized by Department of Computer Science and Engineering, Vellalar College of Engineering, Thindal, Erode on 05.12.2014.

**Delivered a lecture** on “FUTURE PERSPECTIVES OF SOLAR CELLS” in a one day seminar on MNRE Sponsored National Seminar on Trends and Opportunities in Energy Efficient Solar Cells for Future Power Needs (EESC 2014)” organized by Department of Physics, Kongu Engineering College, Perundurai on 23.12.2014.

**Delivered a lecture** on “BIOMASS ENERGY CONVERSION ROUTES” in a MNRE sponsored two day seminar on “Recent Trends in Biofuels Technology for Sustainable Renewable Energy System” organized by Department of Electrical and Electronics Engineering, Selvam College of Technology, Namakkal on 28.01.2015.

**Delivered a lecture** on “ELECTRICAL MACHINES AND ITS CONTROL TECHNIQUES” in a seminar organized by Association of Electrical and Electronics Engineering, CMS College of Engineering, Namakkal on 26.02.2015.

**Delivered a lecture** on “MEDICAL IMAGE PROCESSING TECHNIQUES” in a ICMR sponsored two day National Seminar on “Advancements in Medical Electronics” organized by Department of Electrical and Electronics Engineering, Vivekanandha College of Engineering for Women, Tiruchengode on 02.03.2015.

**Delivered a lecture** on “FUNDAMENTALS OF MATLAB AND ITS APPLICATIONS” in a one day workshop organised by Mathematics, SNS College of Technology, Coimbatore on 07.03.2015.

**Delivered a lecture** on “APPLICATIONS OF NEURO FUZZY FOR RENEWABLE ENERGY SYSTEMS” in a TEQIP-II-CoE-AER sponsored one day workshop organised by Department of Electrical and Electronics Engineering, **Government College of Technology, Coimbatore** on 09.03.2015.

**Session chair** for the International Conference on Electrical, Electronics and Computer Engineering (ICEECE 2015) at Vivekanandha College of Engineering for Women, Tiruchengode on 11.03.2015.

**Delivered a lecture** on “DC/AC CONVERTERS FOR RENEWABLE ENERGY SOURCES AND PWM TECHNIQUES” in a Two day National Workshop on “Design and Implementation of Advanced controllers for renewable energy systems using MATLAB and DSPACE” organised by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 12.03.2015.

**Delivered a lecture** on “INTEGRATION OF POWER ELECTRONICS TO RENEWABLE ENERGY SYSTEMS AND ITS POWER QUALITY ISSUES” in a AICTE sponsored faculty development program on “Trends of Research In Electrical Engineering” organized by Department of Electrical and Electronics Engineering, Mepco Schlenk Engineering College, Sivakasi on 14.05.2015.

**Session chair** for the International Conference on Adaptive Technologies for Sustainable Growth (ICATS 2015) at Paavai Engineering College, Pachal on 29.05.2015.

**Delivered a lecture** on “INTELLIGENT CONTROLLER DESIGN FOR RENEWABLE ENERGY SYSTEMS USING MATLAB” in a TEQIP-II-CoE-AER sponsored one week faculty development program organised by Department of Electrical and Electronics Engineering, Government College of Technology, Coimbatore on 30.05.2015.

**Delivered a lecture** on "IS SOLAR POWER IS CHEAP?" in 28<sup>th</sup> Annual general body meeting of Energy Conservation Society held at Hotel Mali, Kottayam, Kerala on 26.07.2015.

**Delivered a lecture** on "RECENT TRENDS IN POWER ELECTRONICS" in a Guest lecture organised by Association of Electrical and Electronics Engineering department, K.Ramakrishnan College of Technology, Trichy on 12.08.2015.

**Delivered a lecture** on “INTEGRATION OF POWER ELECTRONICS TO RENEWABLE ENERGY SYSTEMS” in a ISRO sponsored two day National workshop on “Advances in Renewable Energy Technologies” organized by Department of Electrical and Electronics Engineering, Dr.NGP Institute of Technology, Coimbatore on 20.08.2015.

**Delivered a lecture** on “INTELLIGENT TECHNIQUES FOR POWER QUALITY IMPROVEMENT” in a two day National workshop on “Power Quality issues and its improvement techniques using intelligent controllers” organized by Department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 04.09.2015.

**Delivered a lecture** on “SOFT COMPUTING TECHNIQUES AND ITS APPLICATIONS” in a workshop organized by Association of Electrical and Electronics Engineering & Computer Science Engineering, Paavai College of Technology on 09.09.2015.

**Delivered a lecture** on “SOFT COMPUTING TECHNIQUES USING WIRELESS SENSOR NETWORKS” in a two day national workshop on “Practical issues in building wireless sensor network applications” organized by Department of Information Technology, Kongu Engineering College on 26.09.2015.

**Delivered a lecture** on “INTRODUCTION TO SOFT COMPUTING TECHNIQUES” in a two day national workshop on “soft computing techniques” organized by Department of Electrical and Electronics Engineering, Kamaraj College of Engineering and Technology, Virudhunagar, on 28.09.2015.

**Delivered a lecture** on “ARTIFICIAL NEURAL NETWORKS – INTRODUCTION TO IMPLEMENTATION” in a one day national workshop on “neural networks and fuzzy logic toolbox using MATLAB” organized by Department of Electrical and Electronics Engineering, KPR Institute of Engineering and Technology, Coimbatore, on 29.09.2015.

**Delivered a lecture** on “INTEGRATION OF POWER ELECTRONICS TO SOLAR PV AND WIND ENERGY CONVERSION SYSTEMS” in a one day national seminar on “Challenges and Research perspectives in Renewable Energy Systems” organized by department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 30.09.2015.

**Delivered a lecture** on “POWER CONVERTERS FOR GRID CONNECTED RENEWABLE SYSTEMS” in a ISTE-STTP on “Grid connected renewable systems” organized by department of Electrical and Electronics Engineering, Viswajothi College of Engineering and Technology, Muvattupuzha, Kerala on 07.12.2015.

**Delivered a lecture** on “ARTIFICIAL NEURAL NETWORKS USING MATLAB” in a UGC sponsored seminar on “MATLAB programming” organized by department of Computer applications, Vellalar College for Women, Erode on 18.12.2015.

**Delivered a lecture** on “MATLAB PROGRAMMING” in a two day national workshop organized by department of Electrical and Electronics Engineering, PPG Institute of Technology, Coimbatore during 29.12.2015 and 30.01.2015.

**Delivered a lecture** on “WRITING EFFECTIVE RESEARCH PAPERS FOR SCI JOURNALS” in a one day national seminar organized by the department of Electrical and Electronics Engineering, Kongu Engineering College, Perundurai on 08.01.2016.

**Delivered a lecture** on “INTELLIGENT TECHNIQUES FOR HARMONIC REDUCTION IN MULTILEVEL INVERTERS” in a three day faculty development program organized by the department of Electrical and Electronics Engineering, Sasi Institute of Technology and Engineering, Tadepalligudem, Andhra Pradesh on 21.01.2016.

### SUMMARY

Invited talks delivered	84			
	Seminar	Workshop	Student Association	STTP/FDP
	31	30	09	09
Conference session chair	05			



E) ACADEMICS  
SUBJECTS HANDLED:

S. No	Academic Year	Semester	Class	Subject	% of result
1	2007-08	ODD	II EEE A	CY 1201 ENVIRONMENTAL SCIENCE AND ENGINEERING	100
2			I EEE B	07EE105 C PROGRAMMING	96.6
3	2007-08	EVEN	II EEE B	EC 1261 ELECTRONIC CIRCUITS	100
1	2008-09	ODD	II EEE A	07EC305 ELECTRONIC CIRCUITS	100
2			III EEE B	EE1302 PROTECTION AND SWITCHGEAR	95.2
3	2008-09	EVEN	I ME (AE)	07AE104 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
1	2009-10	ODD	I ME (AE)	07AE104 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
2			II EEE A	07EC 305 ELECTRONIC CIRCUITS	95.2
3	2009-10	EVEN	III EEE A	07EE603 POWER ELECTRONICS	95.3
1	2010-11	ODD	I ME (AE)	07AE104 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
2			I ME (C&I)	07AE104 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
3			II EIE B	09EI303 ELECTRON DEVICES AND CIRCUITS	100
4	2010-11	EVEN	IV EEE A	07GE802 PROFESSIONAL ETHICS AND HUMAN VALUES	96.9
1	2011-12	ODD	I ME (AE)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
2			I ME (C&I)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	94.44
3			I ME (PED)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	94.44
4			IV EEE A	07 EI 013 NEURAL NETWORKS AND FUZZY LOGIC CONTROL	98.43
1	2011-12	EVEN	IV EEE B	07GE802 – PROFESSIONAL ETHICS AND HUMAN VALUES	96.92
2			I ME (PED)	11PE024 POWER QUALITY ENGINEERING	94.44

1	2012-13	ODD	I ME (AE)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
2			I ME (PED)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
3	2012-13	EVEN	IV EEE B	07GE802 PROFESSIONAL ETHICS AND HUMAN VALUES	100
1	2013-14	ODD	IV EIE A	09EE012 RENEWABLE ENERGY SOURCES	100
2			I ME (AE)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
3			I ME (PED)	11 AE106 COMPUTATIONAL INTELLIGENT TECHNIQUES	100
1	2013-14	EVEN	IV EEE B	09EE016 POWER QUALITY	100
1	2014-15	ODD	III EEE B	11EI403 ANALOG INTEGRATED CIRCUITS	95.7
2			I ME (AE)	14AET15 COMPUTATIONAL INTELLIGENCE TECHNIQUES	100
3			I ME (PED)	14AET15 COMPUTATIONAL INTELLIGENCE TECHNIQUES	100
1	2014-15	EVEN	IV EEE B	11EE016 POWER QUALITY	100
1	2014-15	ODD	I ME (PED)	14AET15 COMPUTATIONAL INTELLIGENCE TECHNIQUES	100
2			IV EEE B	11EE012 RENEWABLE ENERGY SOURCES	100

#### LABORATORY HANDLED/ASSISTED:

- POWER ELECTRONICS LABORATORY
- ELECTRICAL ENGINEERING LABORATORY
- ELECTRONICS ENGINEERING LABORATORY
- DIGITAL ELECTRONICS LABORATORY
- ENGINEERING PRACTICES LABORATORY
- ELECTRONIC CIRCUITS LABORATORY
- CONTROL SYSTEMS LABORATORY
- EDA TOOLS LABORATORY
- LINEAR INTEGRATED CIRCUITS LABORATORY
- DEVICES AND CIRCUITS LABORATORY
- ELECTONIC DESIGN LABORATORY
- DEVICES AND NETWORKS LABORATORY
- ANALOG AND DIGITAL ELECTRONICS LABORATORY
- MEASUREMENTS AND INTEGRATED CIRCUITS LABORATORY
- ELECTRICAL MACHINES LABORATORY
- COMPUTER AIDED SIMULATION LABORATORY

## PROJECTS GUIDED:

S. No	Title of the project	Year	Name of the Students	Remarks
1.	Reduction of time space scalability of FDCT using TMS320C6000 code Composer studio	2007-2008 (UG)	Anandha Raja.M Arun Kumar.T Mohanelu.S	*****
2.	Implementation of safety in Vehicle	2008-2009 (UG)	Kings Krishna Nagaraja Singh.R Kirubhanandan.C. Rajaganesh.C	*****
3.	Design and Implementation of Cascaded Multilevel Inverters	2008-2009 (UG)	Duraisamy.M Karthik.V.J Krishna Kumar.S	*****
4.	FPGA based implementation of Cascaded Multilevel Inverter to reduce Harmonic Distortions	2009-2010 (UG)	Anbumani S Prem kumar C N N Sathish kumar R	<b>KEC BEST PROJECT AWARD</b>
5.	Design and Implementation of Cascaded Multilevel Inverter using Phase Opposition Disposition Multiple Carrier Technique	2009-2010 (UG)	Gopinath.N Gowarthini.K Gowrishankar.P	*****
6.	Digital switching control for cascaded multilevel inverter	2010-2011 (UG)	Abitha.R Bharanitharn.P.R.	<b>GOLD MEDAL at 41<sup>st</sup> All India Student Design Competition from NDRF</b>
7.	Design and Implementation of cascaded multilevel inverter fed induction motor drive	2010-2011 (UG)	Ramani.S Shakilavathi.K Vigneshwarar.C.R	*****
8.	Design of cascaded multilevel inverter for solar power applications	2010-2011 (UG)	Ashik Ahamed.J Karthick.R	<b>ICTACT project Grant</b>
9.	ANN based fault diagnostic system for a single phase DC-AC converter	2010-11 (PG)	Saranya.E	*****
10.	Modulation Strategies for Solar fed Cascaded Multilevel inverter	2011-12 (PG)	Vivekanandhan.M	<b>SILVER medal from NDRF &amp; BST campus innovation award</b>
11.	Design and Implementation of Digital controller for solar fed cascaded multilevel inverter	2011-12 (UG)	Reginald Royston.A Sakthi Priya.P Rangarajan.M	*****

12.	Design and Implementation of solar fed cascaded multilevel inverter using PI Controller	2011-12 (UG)	Baby.S Manoj.G Sampath Kumar.V	*****
13.	Real time Harmonic minimization for a solar fed cascaded multilevel inverter using artificial neural network	2012-13 (PG)	Shanmuga Aravind.P	*****
14.	FPGA based implementation for solar fed Cascaded Multilevel Inverters	2012-13 (UG)	Raghasudha.M Nandhini.R Suresh.B	*****
15.	DSP based implementation for solar fed Cascaded Multilevel Inverters	2012-13 (UG)	Chakkaravarthi.R Deepak Kumar.M Devaki.M	<b>Supreme Engineers Award</b>
16.	Energy Auditing - A case study	2012-13 (UG)	Deepak Kumar.M and team	<b>Second Prize in All India Energy Auditing Competition</b>
17.	Output Voltage Regulation Techniques for Solar Fed Cascaded Multilevel Inverter	2013-14 (PG)	Haritha.K.P.	*****
18.	Harmonic Elimination in Solar Fed Cascaded Multilevel Inverter using Optimization techniques	2013-14 (PG)	Loganathan.G	*****
19.	Design and Development of Solar-fed cascaded multilevel Inverter with reduced number of Semiconductor Switches	2013-14 (UG)	Poomugai.R Sujithapriya.D Udhaya kumar.S	*****
20.	Design and development of Solar fed cascaded H-bridge multilevel inverter using modified PWM techniques	2013-14 (UG)	Avinash B. Manikkannan P. Jayalakshmi U.	*****
21.	Design and Development of Battery management system using hybrid multilevel converter	2014-15 (PG)	Jothimalar.K	*****
22.	Medical image segmentation based on Particle Swarm Optimization	2014-15 (PG)	Nithya.M	*****
23.	Speed control of induction motor using cascaded multilevel inverter	2014-15 (UG)	Booplan.R Karthikeyan.P Mythili.G	*****

24.	Fault tolerant capability system for solar fed cascaded multilevel inverter	2014-15 (UG)	Subashree.A Srinivasan.R Vignesh.S	*****
25.	Design and Development of Multilevel Inverter with level doubling network	2015-16 (PG)	Gayathri. S	*****
26.	A robust method for transmitting an audio signal using steganography	2015-16 (PG)	Tharanya.R	*****
27.	Design of multifunctional Dynamic Voltage Restorer (DVR) with improved power quality	2015-16 (PG)	Suganya.P	*****

### RESPONSIBILITIES HELD:

- Placement Coordinator (2007-till date)
- R&D coordinator (2014-till date)
- NBA (National Board of Accreditation) coordinator (2014-till date)
- Staff advisor for Energy and Environment Conservation Club (2012-till date)
- In charge for Advanced Power Electronics Lab (2014-till date)
- In charge for Electronics Design Lab (2013-2014)
- Class Advisor (2007-2014)
- Project Coordinator (2013-2014)
- Staff advisor for Department Association (2012-2013)
- In charge for Report preparation (2012-2013)
- In charge for Simulation and Language Lab (2008-2013)
- Editor for Newsletter (2007-2010)

### LABORATORIES ESTABLISHED:

- Simulation and Language Laboratory
- DST project Laboratory (for solar photovoltaic research)
- Advanced Power Electronics Laboratory

### CURRICULUM/SYLLABUS ENRICHMENT:

- Electronic Circuits
- Power Electronics
- Renewable Energy Sources
- Computational Intelligent Techniques

### MEMBERSHIPS:

- Life Member of Indian Society for Technical Education. Membership No. LM103043
- Member of Indian Science Congress Association
- Life Member of Energy Conservation Society. Membership No:2340

- Member of National Foundation of Entrepreneurship Development. Membership No.MEM/MG/NFED/HQ/03
- Member of Institute of Industrial Engineers. Membership No: 880080234
- Member of International Association of Engineers (Hong Kong). Membership No: 65281
- Member of International Association of Computer Science and Information Technology (Singapore). Membership No: 80339538
- Associate Member of Universal Association of Computer and Electronics Engineers. Membership No: AM1004247
- Fellow of International Society for Research and Development, London. Membership No. F3140900156

#### OTHER ACTIVITIES:

- Stood **FIRST** in the state level Project Competition based on the social problem “**ATROCITIES AGAINST WOMEN**” organized by Peoples Watch in the Salem Zone
- Graded **FIRST** in the examination on *My experiments with truth* conducted by Gandhi Study Centre.
- Member of National Service Scheme (NSS) during the years 1998-2000
- Participated in a debate organized for Engineers day celebrations at Kongu Engineering College.
- Participated in a debate organized by NSS unit of Kongu Engineering College at Pasuvapatty Village, Chennimalai.
- Delivered a special lecture on “Minsaram—Kaathalum Vaguthalum” (An awareness program on energy conservation practices) organized by NSS unit of Kongu Engineering College at Mullampatty Village, Nasiyanoor held on 27.02.2013

#### REFERENCES:

##### 1. Dr. L.ASHOK KUMAR

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##### 3. Dr. U.S.RAGUPATHY

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Mobile # 91 9842851315, Email: [ragupathy.us@gmail.com](mailto:ragupathy.us@gmail.com)

**PERSONAL DETAILS:**

Age : 33  
Sex : Male  
Date of Birth : 15/12/1982  
Father's Name : S.Stonier  
Nationality : Indian  
Languages Known : English, Tamil and Malayalam  
Passport Number : K2852404  
Driving licence Number : 20090002978

**DECLARATION**

This is to certify that the details furnished above are true to the extent of my knowledge and belief.

***Dr.S.Albert Alexander***

Place : Perundurai  
Date : 22<sup>nd</sup> January 2016