

EVALUATIVE REPORT OF THE DEPARTMENT



Department of Electrical and Electronics Engineering



1. Name of the Department : Electrical and Electronics Engineering

2. Year of establishment : Department of Electrical and Electronics Engineering was established in the year 1993 in St.Peter's Engineering College which was later conferred deemed to be University status in 2008.

3. Is the Department part of a School/Faculty of the university?

Department of the University

4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc. D.Litt., etc.):

- B.E (Electrical and Electronics Engineering)
- M.E (Power Electronics and Drives)
- Ph.D.

5. Interdisciplinary programmes and departments involved

S. No.	Interdisciplinary courses	Year / Sem	Departments
UG Programme B.E. (EEE)			
1	113EHT01-Technical English – I	I/I	English
2	113MAT02-Mathematics – I	I/I	Mathematics
3	113PHT03-Engineering Physics – I	I/I	Physics
4	113CYT04-Engineering Chemistry – I	I/I	Chemistry
5	113CPT05-Computer Programming	I/I	CSE
6	113EGT06-Engineering Graphics	I/I	Mechanical
7	213EHT01-Technical English – II	I/II	English
8	213MAT02-Mathematics – II	I/II	Mathematics
9	213PHT03-Engineering Physics – II	I/II	Physics
10	213CYT04-Engineering Chemistry – II	I/II	Chemistry
11	213CTT05-Basic Civil and Mechanical Engineering	I/II	Civil, Mechanical
12	313MAT01-Transforms and Partial Differential Equations	II/III	Mathematics
13	313EET04-Environmental Science and Engineering	II/III	Chemical
14	413EET01-Numerical Methods	II/IV	Mathematics

15	413EET03-Object Oriented Programming	II/IV	CSE
16	513EET03-Power Plant Engineering	III/V	Mechanical
17	613EET01-Communication Engineering	III/VI	ECE
18	613EET06-Visual Languages and Applications	III/VI	CSE
19	713EET04-Principles of Management	IV/VII	MBA
20	713EET10-Fundamentals of Nanoscience	IV/VII	Physics
21	813EET07-Total Quality Management	IV/VIII	MBA
PG Programme M.E.(Power Electronics & Drives)			
22	113PEPT01-Applied Mathematics	I/I	MATHS

6. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

7. Details of programmes discontinued, if any, with reasons:

Nil

8. Examination System: Annual/Semester/Trimester/Choice Based Credit System:

Semester system and Choice Based Credit System(CBCS)

9. Participation of the department in the courses offered by other departments

B.E. (EEE)

S. No.	Interdisciplinary courses	Year/Sem	Departments
1	213EET05-Basic Electrical and Electronics Engineering	I/II	AERO
	513AET05-Control Engineering	III/V	
2	213EET05-Basic Electrical and Electronics Engineering	I/II	AUTO
3	213CTT06-Circuit Theory	I/II	BME
	413BMT03-Basic Electrical Engineering	II/IV	
4	213EET05-Basic Electrical and Electronics Engineering	I/II	CHEM
	313CHT02-Electrical Drives and Controls	II/III	
5	213EET05-Basic Electrical and Electronics Engineering	I/II	CIVIL
6	213CTT06-Circuit Theory	I/II	ECE

	313ECT02-Electrical Engineering and Instrumentation	II/III	
7	213CTT06-Circuit Theory	I/II	EIE
	313EIT06-Electrical Measurements	II/III	
	413EIT05-Electrical Machines	II/IV	
	513EIT03-Power Electronics	III/V	
8	213EET05-Basic Electrical and Electronics Engineering	I/II	MECH
	313MET06-Electrical Drives and Controls		
9	213EET05-Basic Electrical and Electronics Engineering	I/II	PROD
	313PET06-Electrical Drives and Controls		

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors / Asst. Professors/others)

	Sanctioned	Filled	Actual (including CAS &MPS)
Professors	2	2	2
Associate Professors	1	1	1
Asst. Professors	7	8	8

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance., (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S. No.	Name of the faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students under guidance
1.	Dr. M.R. Mohan	Ph.D	Prof. & Dean (EEE)	Power System	38	8
2	Dr.S.Sankar	Ph.D.	Prof.	Power Systems	12	8
3	Prof. R.Jayaraman	M.Sc. (Engg)	Senior Prof.	Power Electronics	50	
4	Prof. B.Shanmugam	M.Sc. (Engg)	Senior Prof.	Power System	35	
5	Mr.R.Dharmaprakash	M.E	Assoc. Prof.	Power Electronics	15	
6	Mrs.M.Vasugi	M.E.	Asst.	Power	11	

			Prof.	Electronics		
7	Mrs. B. Priyadharshini	M.E.	Asst. Prof.	Power Electronics	11	
8	Mrs.M.A.SalaiKumuda	M.E.	Asst. Prof.	Power Electronics	5	
9	Mr.Saravanan	M.E.	Asst. Prof.	Power Electronics	1	
10	M.Preethilakshmi	M.E.	Asst. Prof.	Power Electronics	2	
11	B.Seenivasan	M.E.	Asst. Prof.	Power Electronics	1	
12	P. Gowtham	M.E.	Asst. Prof.	Power Electronics	1	
13	N.Balaji	M.E.	Asst. Prof.	Power Electronics	1	

12. List of senior Visiting faculty: Nil

13. Percentage of classes taken by temporary faculty – programme-wise information:

Nil

14. Programme-wise Student Teacher Ratio

S. No.	Programme	Sanctioned strength	Student - Teacher Ratio
1.	B.E. (Electrical and Electronics Engineering)	30	15:1
2.	M.E. (Power Electronics and Drives)	24	12:1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

S. No.	Staff Category	Sanctioned	Filled	Actual (incl. CAS &MPS)
1.	Support Staff (Technical)	4	4	4
2.	Administrative Staff	1	1	1

16. Research thrust areas as recognized by major funding agencies

- Solar Energy
- Wind Energy
- Hybrid Energy
- Power Electronics and Smart Grid
- Special Electrical Machines
- Hybrid Electric Vehicles

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

a) National Funding Agencies:

S. No.	Name of the Investigator	Funding Agency	Title	Total Grant	Status
1	Prof.R.Jayaraman	MSME	Integrated Starter Generator for Automobile using Induction Machine	Rs 6,25,000	Ongoing
2	Prof.R.Jayaraman	MSME	Solar Powered PV Modules to Micro Grids	Rs 6,25,000	Ongoing
3	Prof.R.Jayaraman	MSME	Low Cost LED night lamp with variation in brightness control applicable for room dimension and consumers choice	Rs 2,00,000	Ongoing

b) International Funding Agencies : Nil

c) Total Grants Received : Rs. 14,50,000

18. Inter-institutional collaborative projects and associated grants received

a) National Collaboration - Nil

b) International Collaboration - Nil

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Nil

20. Research facility / centre with

- State recognition - Nil
- National recognition - Nil
- International recognition - Nil
- Others

21. Special research laboratories sponsored by / created by industry or corporate bodies

Nil

22. Publications:

a) No. of paper published in peer reviewed journals (National/International)

Year	International Journal	National Journal	International Conference	National Conference	Total
2015	12	-	20	6	38
2014	19	-	13	16	48
2013	21	-	4	12	37
2012	5	-	1	8	14
Total	57	-	38	42	137

PUBLICATIONS IN INTERNATIONAL JOURNAL

2015	
1	M.A. Salai Kumutha, M. Vasugi and R. Dharmaprakash , “Voltage Ripple Reduction of Buck Converter Using Sliding Mode Control Technique”, Middle-East Journal of Scientific Research 23 (Sensing, Signal Processing and Security): 83-88, 2015 (SJR = 0.49)
2	R. Dharmaprakash and Joseph Henry, “Comparison of Direct Torque Control of Induction Motor Using Two-Level and Three-Level Inverter”, Middle-East Journal of Scientific Research 23 (Sensing, Signal Processing and Security): 89-96, 2015. (SJR = 0.49)
3	R.Dharmaprakash and Joseph Henry, “ Investigation of Three Level Diode Clamped Inverter Switching Tables without Using Medium Vectors for Direct Torque Control of Induction Motor ”, International

	Journal of Applied Engineering Research, Vol. 10, No.17, 2015, pp 12836-12842.(SJR = 0.13)
4	M.Vasugi , "Advances in water treatment methods and conversion of wastewater to Irrigation using solar pumps" International Journal of Applied Engineering and Technology ISSN:2277-212X, 2015 Vol.5(1) January-March, pp.48-55/vasugi
5	S.Prakash and R.Dhanasekaran, "Comparison of Responses of PI & PID controlled Interleaved Buck Converter fed PMBLDC Motor Drive System" International Journal of Applied Engineering Research, Volume 10, Number 6, 2015. SCOPUS SJR:0.13 (IF: 2.0653)
6	J.Singaravelan and k.Sureshmanic, "An Integrated Z-Source Inverter for Voltage Sag Compensation using Matlab/Simulink" International Journal of Applied Engineering Research, Volume 10, Number 3, 2015. SCOPUS SJR:0.13 (IF: 2.0653)
7	Gokul Kumar.G and Suresh Manic.K, "A Hardware implementation of Multilevel Converter using Evolutionary based GA/DE Algorithm" Australian Journal of Basic and Applied Science, 9(7), April 2015. SCOPUS SJR:0.13
8	S.Prakash and R.Dhanasekaran, "Investigations on Fuzzy controlled interleaved buck converter FED PMBLDC drive system", ARPN Journal of Engineering and Applied Sciences, Volume 10, No.7, April 2015. SCOPUS SJR:0.13
9	Priya.S , Rashmi M.R and Suresh .A, "Nine Level Diode clamped inverter Fed Direct Torque Controlled induction Motor Drive" Australian Journal of Basic and Applied Sciences, 9(2), February 2015, Page 126-132. SCOPUS SJR:0.13
10	G.Balasundaram and S.Arumugam, "Implementation of Five level inverter considering PV System using MPPT Technique" ARPN Journal of Engineering and Applied Sciences, Volume 10, No 4, March 2015. SCOPUS SJR:0.16
11	Gokul Kumar.G and Suresh Manic.K, " A Hardware Implementation of Multilevel Converter using Evolutionary based GA/DE Algorithm" Australian Journal of Basic and Applied Sciences, 9(7), February 2015, Page 603-612. SCOPUS SJR:0.13
12	S.Senthil Kumar and C.Kamalakaran, " Sensitivity Based Voltage Profile Improvement in Radial Distribution System" International Journal of Applied Engineering Research, Volume 10, Number 7 (2015) pp.18593-18605 (IF:1.3) SCOPUS
2014	
13	R.Dharmaprakash and Joseph Henry, "Direct Torque Control of Induction Motor Using Three- Level Diode Clamped Multilevel Inverter", International Journal of Applied Engineering Research, Vol. 9, No.19, 2014, pp 5985-5998. (SJR = 0.13)
14	R.Dharmaprakash and Joseph Henry, "3-Level Inverter Fed Direct Torque Control of Induction Motor without Using Medium Vectors", Applied Mechanics and Materials, Vol. 573, June 2014, pp 150-154. (SJR = 0.15)

15	R.Dharmaprakash and Joseph Henry, “Analysis of Switching Table Based Three Level Diode Clamped Multilevel Inverter”, International Journal of Scientific & Engineering Research, Vol. 5, Issue 4, April-2014, pp. 102-106. (JIF=3.2)
16	N. Balaji and R.Dharmaprakash , “Four Quadrant Operation of BLDC Motor with Load Variations”, IJAREEIE, Vol. 3, Special Issue 1, February 2014, pp. 255-260. ISSN: 2320-3765.(SJIF=5.016)
17	R.Dharmaprakash and Joseph Henry, “Analysis of Switching Table Based Three Level Diode Clamped Multilevel Inverter”, International Journal of Scientific & Engineering Research, Vol. 5, Issue 4, April-2014, pp. 102-106. (JIF=3.2)
18	R.Dharmaprakash , Joseph Henry and P. Gowtham , “Four Switch Inverter fed Direct Torque control of Three Phase Induction Motor”, IJAREEIE, Vol. 3, Special Issue 1, February 2014, pp. 64-69. ISSN: 2320-3765 (SJIF=5.016)
19	R.Dharmaprakash and Joseph Henry, “Direct Torque Control of Induction Motor Using Multilevel Inverter”, International Journal of Latest Research in Science and Technology, Vol. 3, Issue 3, May-June 2014, pp. 70-75. (ISRA:JIF=1.979)
20	N. Kamala and R. Dharmaprakash , “Studies on Modeling and Direct Torque Control of Induction Motor Using Soft Computing Technique”, JIRAS, Vol. 1, Issue 1, Jan – Jun 2014, pp.333-343. (ISI IF: 1.096)
21	P.Vetrivelavan, M.Vasugi and R.Jayaraman , “A Battery Balancing Using Nine Level Inverter”, IJAREEIE, Vol. 3, Special Issue 1, February 2014, pp. 35-42. ISSN: 2320-3765 (SJIF=5.016)
22	M.Vasugi and Prof.R.Jayaraman , “Solar Charged Stand Alone Inverter” International Journal of Engineering Research and Applications ISSN:2248-9622, Vol.4.Issue 7 (Version 6), July 2014, pp.84-87
23	P.Suresh and D.Kirubakaran, “Power Loss Optimization of Boost Converter Using Genetic Algorithm” International Journal of Scientific & Engineering Research, Volume 5, Issue 4, April 2014.
24	D.Saravanan and D.Kirubakaran , “A TwoStage Converter Based Special Rectifier for Wind Enrgy Conversion System” International Journal of Scientific & Engineering Research, Volume 5, Issue 4, April 2014.
25	M.Hemachandran and R.Madhududhanan, ”Performance Evaluation of Multiport Solar and PMSG wind based PCF boost converter with DTC fuzzy logic scheme for four switch inverter FED induction motor Applications”, International Journal of Multidispl.Research & Advcs. In Engg.(IJMRAE)
26	M.Hemachandran and R.Madhududhanan, ”Multi Port Single Stage Power Electronics Converter and Wind PFC Converter for DC Micro Grid Applications” Research Journal of Applied Science, Engineering and Technology.
27	Sam Alaric , Caroline and Suresh Manic, ”Modelic of Photovoltaic Switched Inductor Z Source Multilevel Inverter Effective of Power Control” International Journal of Applied Engineering Research,

	Volume 9, Number 23 (2014) pp. 22471-22487. SCOPUS SJR:0.13 (IF: 2.0653)
28	P.Muthukrishnan and R.Dhanasekaran, “A High Step-up Converter with a Voltage Multiplier & Coupled Inductor Module for Photovoltaic System”, ISBN No. 978-4799-3914-5/14 pp. 1041-1045
29	S.Dinesh Kumar , “Modeling of Brushless DC Drive using Genetic Algorithm based Tuning of PID Controller”, International Journal of Electrical and Electronics Engineering Research (IJEEER), ISSN (P): 2250-155X; ISSN (E): 2278-943X Vol. 4, Issue 4, August 2014, 113-126, pp . 113-126
30	S.Boobalan and R.Dhanasekaran, “Hybrid Topology of Asymmetric Cascaded Multilevel Inverter with Renewable Energy Sources”, ISBN No. 978-1-4799-3914/2014, IEEE, pp. 1046-1051
31	S.Prakash and R.Dhanasekaran, “Design and Simulation of Closed Loop Controlled Buck Converter FEDPMBLDC Drive System”, International Journal of Scientific & Engineering Research, Vol. 5, Issue 4, April 2014, pp. 7-10.
2013	
32	Murugan,R. and Mohan.M.R. , “A PSO based hybrid algorithm with Adaptive Penalty Function Approach for the Combined Heat and Power Economic Dispatch Problem “, Archives Des Sciences, Vol.66, No.4,pp 1-25,2013. (SJR = 0.24)
33	Murugan,R and Mohan.M.R. , “Artificial Bee Colony Optimization Embedded with Simulated Annealing for the Combined Heat and Power Economic Dispatch Problem”, International Review on Modelling and Simulations, Vol.6,No.3.2013.(SJR = 0.43)
34	R.Dharmaprakash and Joseph Henry, “Comparative Study of Indirect Vector Control and Direct Torque Control of Induction Motor”, International Journal of Technology and Engineering Science (IJTES), Vol. 1(6), pp1014-1020, Sept. 2013.(ISI IF: 0.962)
35	R.Dharmaprakash and Joseph Henry, “High Performance Control Schemes of Induction Motor – A Review”, International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering (IJAREEIE), Vol. 2, Issue 9, September 2013. pp 4336-4347. (SJIF=5.016)
36	S.Karthikumar and Dr.N.Mahendran, “Modelling of Neuro fuzzy controller for negative output KY boost converter voltage ripple reduction”, Electronick ir electrotechnika ISSN 1392-1215, Vol.19, No.6, 2013.
37	S.Prakash and R.Dhanasekaran , “Comparison of Loop controlled Buck Converter Fed PMBLDC Systems with and without S number”, International Journal of Electrical and Electrical Engineering &Telecommunications, January 2013(IF:2.221)
38	V. Maheshwari and M. Manikandan, “Comparison of Nine Levels Asymmetrical and Symmetrical Inverter”, International Journal of Multidispl. Research and Advcs. In Engg, Vol 5 No III, July 2013. (IF:0.2015)

39	V. Nandagopal and M. Manikandan, “Design and Analysis of Various PWM Techniques for Buck – Boost Converter”, International Journal of Multidispl. Research and Advcs. In Engg, Vol 5 No III, July 2013. (IF:0.2015)
40	P.Muthukrishnan and R.Dhanasekarran, “Simulation of DC-DC Boost Converter by Coupled Inductor Using PSIM”, International Journal of Recent Development in Engineering and Technology”, Volume 1, Issue 1, Oct 2013.
41	S.Prakash and Dr .R.Dhanasekaran, “Simulation of Interleaved Buck Converter Fed PMLDLC Drive System with Input Disturbance”, International Journal Of Recent Development in Engineering and Technology, Oct 2013
42	V. NandaGopal and M. Manikandan, “The FPGA Implementation of Pulse Width Modulation”, European Journal of Scientific Research, Vol 94 No 3, Jan 2013. SCOPUS
43	V. Maheswari and Dr. M. Manikandan, “A Comparison of Multilevel Inverter for using in 3-Phase Induction Motor”, European Journal of Scientific Research, Vol 102 No 4, May 2013. SCOPUS
44	P.Kannan and V.Rajamani, “Design, Modelling and Simulation of UPQC in Eight Bus System”, Wulfenia Journal, ISSN 1561-882X, Vol. 20, No. 3, pp. 51-59, March 2013. (IF:0.267)
45	S.Karthik Kumar and N.Mahendran, “Neuro Fuzzy Controller for positive output KY Boost Converter to reduce output voltage ripple, Elektronika IR Elektrotehnika, ISSN 1392-1215, Vol 19, No.8, 2013. (IF:0.41)
46	S.Karthikumar , Dr.N.Mahendran and Dr.S.Sriraman, “Design and Implementation of Fuzzy Controller for KY Boost Converter to Reduce Output Voltage Ripple”, Wulfenai Journal Klagenfurt, Austria, (ISSN: 1561-882X), Vol. 20, No. 4, pp. 96-107, April 2013. (IF:0.267)
47	Abdul Kareem and Mohammad Fazle Azeem, “A Novel Adaptive Super-Twisting Sliding Mode Controller with a Single Input-Single Output Fuzzy Logic Control Based Time Varying Sliding Surface”, International Journal of Soft Computing,8(5):356-364, 2013 SCOPUS
48	S.Prakash and R.Dhanasekaran , “Interleaved Buck Converter FED PMLDLC Drive System”, International Journal of Technology and Engg. Science (IJTES), Vol.1,(6), pp 1043-1048, Sept 2013.
49	P.Kannan & V.Rajamani , “Design, Modelling and Simulation of UPQC in Fourteen Bus System”, Journal of Theoretical and Applied Information Technology, ISSN: 1992-8645,E-ISSN: 1817-3195, pp. 540-548
50	T.Prem Koumar , M.R.Rashmi & A.Suresh, “Power Factor Correction Circuit Using Digital PI Controller”, International Journal of Technology and Engineering Science (IJTES), Vol. 1 (6), pp. 1049-1053, September 2013
51	K.Sampath Kumar and C.Arun,”An Improved Image Denoising Approach Using Optimized Variance Stabilizing Transformation” International Review on Computers and Software, Volume 8, No:8,

	August 2013
52	G.P.Ramesh and C.V.Aravind, "Design Aspect of Blade Shape and Position for the MAGLEV Vertical Axis Wind Turbine", Power Electronics and Renewable Energy
2012	
53	Murugan,R. and Mohan.M.R , "Artificial Bee Colony optimization for the combined heat and power economic dispatch problem", ARPN Journal of Engineering and Applied Sciences, Vol.7, No.5,pp 597-604,2012. (SJRI = 0.21)
54	Murugan,R. and Mohan.M.R , "Modified Artificial Bee Colony algorithm for solving Economic dispatch problem", ARPN Journal of Engineering and Applied Sciences, Vol.7, No.10,pp 1352-1366,2012. (SJRI = 0.21)
55	P.Kannan and V.Rajamani , "Reduction of Harmonics of UPQC System with PV Array", European Journal of Scientific Research, ISSN 1450-216X, Vol. 3, pp. 326-362, September, 2012.
56	P.Kannan and V.Rajamani, "Design, Modeling and Simulation of UPQC system with PV array", International Journal of Engineering Research and Technology, ISSN. 2278-0181, Vol. 1 Issue 6, pp. 1-5, August 2012. (IF:1.76)
57	K.Sampath Kumar and C.Arun, "Poisson Noise Removal from Fluorescence Images using Optimized Variance-Stabilizing Transformations and Standard Gaussian Denoising Strategies", European Journal of Scientific Research, ISSN 1450-216X, Vol. 84, No. 3, pp. 336-344, 2012. SCOPUS

PUBLICATIONS IN INTERNATIONAL CONFERENCES

2015	
1	M.Anbalagan and M.Vasugi , "An Energy Stored Quasi-Z Source Cascaded Multilevel Inverter Based Photovoltaic Power Generation System", 2 nd ICAET-15, 10 th January 2015.
2	R.Arvind and R.Jayaraman , "Asymmetrical T -Source Inverters", 2 nd ICAET-15, 10 th January 2015.
3	M.Meenakshi Sundaram and R.Dharmaprakash , "Unsymmetrical Fifteen Level Inverter With Reduced Harmonics and Number of Switches Using DC Source", ICETET 2015, 27 th March 2015.
4	S.Ramani Prabha Devi and R.Dharmaprakash , "Fifteen Level Three Stage Cascade Multilevel Inverter With Reduced Harmonics Using Single DC Source", ICETET 2015, 27 th March 2015.
5	V.Ramya and R.Dharmaprakash , "THD Analysis of Fifteen Level Cascaded Multilevel Inverter with Reduced Conduction Loss", ICETET 2015, 27 th March 2015.
6	R.Anand and V.Balaji, "Validity of sensitivity indicator method for Load Perturbations voltage Instability", International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
7	S.Nagaraj , L. Rajaji and N.V Sivaram, "An autonomous operating Solar

	PV energy conversion system based on FLYBACK converter”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
8	A.Kamal , S.Shankar and R.Yogaraj, ”Hybrid Power Generation System Using Intelligent Controllers”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
9	T.Chandrasekar and B. Justus Rabi ,”Three phase Rectifier with active current injection for adjustable speed drive”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
10	M.K Balachandaran , L.balaji and K. Shanthini ,”Enhanced Performance solar concentrators using Kalman Filter”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
11	A.kamal , S.sankar and R. Limna Raj ,”Hybrid energy storage in Raps system”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
12	A.Kamal , S.Sankar and M.swaminathan,”Implementation soft switching bidirectional dc-dc converter for stand alone photo generation system”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
13	A.kamal , S.Sankar and C.Priyatharshini,”Power management by using Multiport dc-dc converter for renewable energy”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
14	R.Dharmaprakash and Joseph Henry,”Investigation of Three Level Diode Clamped Inverter Switching Tables without Using Medium Vectors for Direct Torque Control of Induction Motor”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
15	R.Essaikiraj , B.Dhivya Bharathy and C. Kamalakannan,”Comparison of dsp and pic using converter for constant dc load applications”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
16	P. Suresh and Dr D. Kirubakaran,”An efficient Rectifier topology for hybrid wind-solar energy system”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
17	P. Muthukrishnan and R. Dhanasekaran,”Performance and analysis of boost converter with capacitor multiplier and coupled inductor for dc applications”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
18	D.Saravanan and Dr D. Kirubakaran,”Variable speed wind energy conversion system integrated with power converters for improving the efficiency”, International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).

19	S.Boobalan , R.Dharmaprakash,"Modelling and Analysis of three Phase Common H-Bridge Asymmetric cascade Multilevel Inverter", International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
20	S.Asokan and P.Balaji ,"Different segmentation techniques for identification of tumor cells in brain and its comparosion", International Conference on Green Technologies for Power Generation, Communication and Instrumentation (ICGPC 2015).
2014	
21	B.Shanmugam and K.Balagrunathan ,"Hybrid Energy System in Hybrid Vehicle-State of Art" International Conference on Green Technologies for Power Generation and Communication, April 3 rd & 4 th , 2014.
22	B.Shanmugam and K.Balagurunathan , "Advantages of Sliding Order in Sliding Mode Control Design", ICCCET – 2014, April 4 th & 5 th 2014, pp. 576
23	R.Dharmaprakash and Joseph Henry, "3-Level Inverter Fed Direct Torque Control of Induction Motor Without Using Medium Vectors", ICAAC 2014, 11 th & 12 th April 2014
24	N. Rajavinu and R. Dharmaprakash , "PWM of Cascade Five Level Voltage Source Inverter Using FPGA", ICFTEE-2014, 1 st & 2 nd March 2014, pp.128-131, ISBN No. 978-93-88757-84-9
25	P.Vetrivelavan, M.Vasugi and R.Jayaraman , "A Battery Balancing Nine Level Inverter", ICGPC 2014, April 3 rd & 4 th 2014, pp. 344-349. ISBN No. 978-81-927500-5-7
26	Ranjani and M.Vasugi , "PWM of Cascade Multilevel Voltage Source Inverter Using FPGA", ICGPC-2014, April 3 rd & 4 th 2014, pp. 344-349. ISBN No. 978-81-927500-5-7
27	N. Kamala and R. Dharmaprakash , "Studies on Modeling and Direct Torque Control of Induction Motor Using Soft Computing Technique", ICIRS 2014, 12 th April 2014, pp. 87
28	Saravanan. D , D.Kirubakaran, "A Two Stage Converter Based Special Rectifier for Wind Energy Conversion System", International Conference on Green technologies for Power generation and Communication, April 3-4, 2014.
29	Suresh .P , D.Kirubakaran , "Power Loss Optimization of Boost Convertor using Genetic Algorithm", International Conference on Green technologies for Power generation and Communication, April 3-4, 2014.
30	Jayaudhaya .J, Rangarajan P, Nandhini C.R, and Nandhini .B, "Operation and Control of Hybrid Standalone System", International Conference on Green technologies for Power generation and Communication, April 3-4, 2014.
31	Balaji .K and Sureshmanic .K: "Adaptive Neuro Fuzzy Controller of Two-Stage KY Converter", International Conference on Green technologies for Power generation and Communication, April 3-4, 2014.
32	S.Malaisamy and A.Sabanayagam, "Performance Analysis, Modelling and Power Optimization in Solar Powered Automated Drier ",

	International Conference of Green Technologies for Power Generation and Communication, April 3 rd and 4 th , 2014, pp. 396-398 (IF:1.4)
33	S.Nagaraj , L.Rajaji and K.Shanthini, “Application of Voltage Multiplier in Implementing High Step-up Ratio Fly back Converter with Active Clamp”, International Conference on Advance Research in Engineering and Technology (ICARET 2014), 238-244
2013	
34	R.Dharmaprakash and Syed Mohammed Abbas.S, “Statcom Control Scheme for Grid Connected Wind Energy System for Power Quality Improvement”, International Conference on Computation of Power, Energy, Information and Communication, ICCPEIC-2013, Adhiparasakthi Engineering College, 17 th – 18 th April 2013
35	V.Maheswari and Dr.M.Manikandan. “A Comparison of Multilevel Inverter for Using 3- Phase Induction Motor, ICMEET 2013 on 10.04.2013, Magna College of Engineering.
36	S.Prakash & R.Dhanasekaran, “Simulation of Interleaved Buck Converter FED PMBLDC Drive System”, International Conference of Modern Trends in Science , Engineering and Technology and International Research Conference on E-Business Management, September 25 & 26, 2013, PP. 43-46
37	V. Arulalan & R.Dhanasekaran, “Over view of Wind Power Applications”, International Conference of Modern Trends in Science , Engineering and Technology and International Research Conference on E-Business Management, September 25 & 26, 2013, PP. 88-91
2012	
38	S.Karthik Kumar , Dr.S.Sriraman and N.Mahendran, “Design of Fuzzy Logic Controller for Output Voltage Ripple(OVR) Reduction of KY Boost Converter” International Conference on Emerging Trends in Electrical Engineering and Energy Management (ICETEEEM-2012).

PUBLICATIONS IN NATIONAL CONFERENCE

2015	
1	M. Rajiv Gandhi and R. Dharma Prakash , “A Cockcroft Walton voltage multiplier fed by a three phase to single phase matrix converter with PFC “,National conference on recent trends in Electrical, Electronics & Communication Engineering, 20 th March 2015 (NCRTEECE’ 15)
2	B.Shanmugam and R.Jayaraman , “Sparse AC Link Buck-Boost Converter by M.Johnson Jawahar”, National conference on recent trends in Electrical, Electronics & Communication Engineering, 20 th March 2015 (NCRTEECE’ 15)
3	J.Karthik and R.Dharma Prakash , “A sliding mode control of DC-DC Buck Converter”, National conference on recent trends in Electrical, Electronics & Communication Engineering, 20 th March 2015 (NCRTEECE’ 15)

4	M.Vasugi and R.Dharma Prakash ,“Advanced control strategy for stand – alone Solar PV system with Dual source charging and enhanced battery life by M.Gopinath”, National conference on recent trends in Electrical, Electronics & Communication Engineering,20 th March 2015 (NCRTEECE’ 15)
5	M.Anbalagan and M.Vasugi ,“Modelling Impedance design and efficiency analysis of quasi-Z source module in cascaded multilevel photovoltaic power system”,Second International Conference on Advances in Engineering and Technology-2015
6	R.Aravind and R.Jayaraman ,” Asymmetrical Γ source Inverters”,Second International Conference on Advances in Engineering and Technology-2015
2014	
7	B.Shanmugam and K.Balagrunathan , “Sliding Mode Chattering Control and Application” in the National Conference on Power Electronics and Drives, (PEDC’ 14).
8	B.Shanmugam and K.Balagurunathan , “Sliding Mode Theory and Application”, PEID - 2014, March 6 th & 7 th 2014, pp. 269-276.
9	S.Gayathri, R.Jayaraman and B.Priyadharshini , “A Dual Inverter fed Four Level Open-End Winding Induction Motor Drive with a Nested Rectifier-Inverter”, NCRTEEE ’14, 7 th March 2014, pp. 305-319
10	Jijymon, R.Jayaraman and M.Vasugi , “An Integrated Three Port Bidirectional DC-DC Converter for PV Application”, NCRTEEE ’14, 7 th March 2014, pp. 271-282
11	Regin Franklin, M.Vasugi and R.Jayaraman , “Novel Three Phase Three Level Stacked Neutral Point Clamped Grid Tied Solar Inverter with Split Phase Controller”, NCRTEEE ’14, 7 th March 2014, pp. 260-270
12	K.Narayanan, M.Vasugi and B.Priyadharshini , “Design and Implementation of a Unity Power Factor Fuzzy Battery Charger Using an Ultra Sparse Matrix Rectifier”, NCRTEEE ’14, 7 th March 2014, pp. 29-32
13	N. Jayashree and R. Dharmaprakash , “Reconfigurable Solar Converter A Single Stage Power Conversion PV Battery System”, NCRTEEE ’14, 7 th March 2014, pp. 49-54
14	N.Kamala and R.Dharmaprakash , “Studies on Modeling a Synchronous Machine”, NCRTEEE ’14, 7 th March 2014, pp. 334-337.
15	P. Ramesh and R.Dharmaprakash , “High Frequency Non Isolated High Power DC-DC Converter Using Cockcroft-Walton Voltage Multiplier”, NCAET – TRIC 2K14, 14 th March 2014, pp. 11.
16	M. Ranjani and R. Dharmaprakash , “FPGA Based Cascade Multilevel PWM for Single Phase Inverter”, NCRTEEE ’14, 7 th March 2014, pp. 13-17
17	M. Saravanan and R.Dharmaprakash , “Four Quadrant Integrated Y=Transformer for Dual Input Isolated DC-DC Converter”, NCAET – TRIC 2K14, 14 th March 2014, pp. 23
18	C. Tamilmozhi and R. Dharmaprakash , “Balanced PV Control for A

	Cascaded H-Bridge Inverter”, NCEMIT '14, 20 th March 2014.
19	V. Supriya and R. Dharmaprakash , “STATCOM Control at Wind Farms with Fixed Speed Induction Generator Under Asymmetrical Grid Faults”, NCRTEEE '14, 7 th March 2014, pp. 55-60.
20	B.Seenivasan and R. Dharmaprakash , “Simulation of Direct Vector Control of Three Phase Squirrel Cage Induction Motor”, NCSTRAEE'14, 21 st March 2014, pp. 207-212
21	B.Seenivasan and R. Dharmaprakash , “Simulation of Direct Vector Control of Three Phase Squirrel Cage Induction Motor”, ETET 2K14, 1 st March 2014
22	S.Satthiyaraj and S.Shankar, “Design and Implementation of Unified Power Flow Controller for Power Quality Improvement in Transmission Systems”, National Conference, University of Engineering, Panruti, DIET, 2014, pp. 101-107
2013	
23	R.Dharmaprakash and Ramya.M, “A Simple Position Sensorless Controller Strategy for Four Switch 3 ϕ Brushless DC Motor Drives Using Single Current Sensor”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
24	R.Dharmaprakash and Akesh.A, “A Non-isolated Bidirectional ZVS-PWM Active Clamped DC–DC Converter”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
25	R.Dharmaprakash and Balaji.R, “An Integrated Four-Port DC/DC Converter for Renewable Energy Applications”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
26	R.Dharmaprakash and Karthick.R, “Hybrid PV and Wind Power Systems Development for Supplying Electricity to Industry”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
27	R.Dharmaprakash and Karthikeyan.G, “Fuzzy Logic Based MPPT for Photovoltaic Modules Influenced by Solar Irradiation and Cell Temperature”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
28	R.Dharmaprakash and Lakshmi.M, “Space Vector Modulation for Nine-Switch Converters”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
29	R.Dharmaprakash and Pradeep Kumar.A, “Single Phase Boost Converter with Quasi Sliding Mode Technique”, National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
30	R.Dharmaprakash and Preethi Lakshmi.M, “A Bi-Directional Flow Interior Permanent Magnet Brushless Direct Current Motor Drive”,

	National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
31	R.Dharmaprakash and Raja Srinivasan.S.P, "Control of TI-SEPIC Converter for Optimal Utilization of PV Power", National Conference on Innovative Challenges in Electrical Engineering-ICEE-2K13, Jayalakshmi Institute of Technology, Dharmapuri, 21 st March 2013.
32	R.Dharmaprakash and Nandhagopal.A, "Power Quality Analysis of Grid-Connected Photovoltaic System", National Conference on Innovative Challenges in Electrical Engineering-ICEE-2K13, Jayalakshmi Institute of Technology, Dharmapuri, 21 st March 2013.
33	R.Dharmaprakash and Shakila.K, "Isolated Zeta Converter: Principle of Operation and Design in Continuous Conduction Mode", National Conference on electrical, Information and Communication Engineering, C.Abdul Hakeem College of Engineering and Technology NCEICE'13, Melvisharam, 2 nd March 2013.
34	R.Dharmaprakash and Lakshmikandhan.M, "High Performance Control of Three Phase Induction Motor", National Conference on Emerging Trends in Power Processing and Applications, St.Peter's University, Chennai, 20 th April 2013.
2012	
35	R.Dharmaprakash and S.Rajalakshmi, "Simulation of Direct Vector Control of Three Phase Squirrel Cage Induction Motor", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
36	R.Dharmaprakash and K.Ramesh, "Simulation of SMC based Direct Torque Control of Induction Motor", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
37	R.Dharmaprakash and M.A.Salaikumutha, "A Sliding Mode Approach to DC-DC Buck Converter", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
38	R.Dharmaprakash and N.Sangeetha, "Simulation of PI based Direct Torque Control of Induction Motor", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
39	R.Dharmaprakash and L.Saranathan, "Comparison by Simulation of Vector Control and Direct Torque Control of Induction Motor", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
40	R.Dharmaprakash and L.Vidhya, "Simulation of SMC based Vector Control of Induction Motor", National Conference on Electrical Emerging Trends, NCEET 2K12, Bhjarang Engineering College, Chennai, 7 th April 2012.
41	R.Dharmaprakash and K. Porkodi, " Delta Modulation Inverter for Induction Motor Drives", National Conference on Signal Processing and Communications", St.Peter's College of Engineering and Technology,

	Chennai, 1 st – 2 nd March 2012.
42	J Sam Alaric , participated in National Conference for Biomedical Engineers, organised by Department of Biomedical Engineering, Kerala Institute of Medical Sciences, 14 th July, 2012.

- b) **Monographs** – Nil
- c) **Chapters in Books** – Nil
- d) **Edited Books** – Nil
- e) **Books with ISBN with details of Publishers** – Nil
- f) **Number listed in International Database**(for e.g. web of science, scopus, Humanities International complete, Dare Database –International Social sciences Directory, EBSCO host, etc) – 25
- g) **SJR** - : 0.13 -0.49
- h) **H-index**- 0-11

23. Details of patents and income generated:

Nil

24. Areas of consultancy and income generated

Nil

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

Nil

26. Faculty serving in

- a) **National committees**
- b) **International committees**
- c) **Editorial Boards**
- d) **any other (please specify)**

Faculty serving in

- a) **National committees**

S. No.	Name of the faculty	Details
1	Dr.M.R.Mohan	<p>Served as Expert Committee Member in NBA-AICTE during August 2012 at Aeronautical Institute of Engineering, Hyderabad, Andhrapradesh.</p> <p>Served as expert committee member for the receipt during May 2015 at Apex Institute of Engineering and Technology Jaipore, Rajasthan.</p> <p>Served as Expert committee member for the Engineering Institution in Tamil Nadu during November 2010</p> <p>Served as Expert Committee Member UPSC in 2009 as expert committee member in the staff selection of Assistant Electrical Inspector at Dholpur House, Shahjahan Road, New Delhi.</p>

b) **International committees** – Nil

c) **Editorial Boards** - Nil

d) **any other (please specify)**

S. No.	Name of the faculty	Details
1	Dr.M.R.Mohan	<p>Reviewed books</p> <ol style="list-style-type: none"> 1. "Power System Engineering", by I.J.Nagrath and D.P.Kothari 2. "Basic Electrical and Electronics Engineering", Monograph by Salem Engineering College. <p>Expert committee member in the mock visit to VIT University Vellore, Tamil Nadu, India during February 2009.</p>

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Year	FDP	Training Program	Workshops	Seminars	Conference
2015	-	1	-	1	-
2014	-	10	-	-	-
2013	-	2	-	1	1
2012	-	4	-	-	-
2011	-	-	1	-	-
2010	-	1	-	-	-

Conferences, workshops, short term courses attended

S. No.	Name of the faculty	Program	Period	Organized by
1.	B.Shanmugam	23 rd National Conference On I.C Engines And Combustion	13.12.2013 to 16.12. 2013	Sardar Vallabai National Institute Of Technology- Surat
2.	B.Priyadharsini	National Seminar On Optimization Techniques	06.12.2013	VIT, Chennai Campus
3.	M.Vasugi	Training On Solar Photo Voltaic System	26.02.2014 to 01.03.2014	Anna University Chennai
4.	K.Subha Sharmini	Quality Management System And Audit Training	08.10.2010 to 09.10.2010	Creative Management Consultant, Chennai
5.	G.Raju	Workshop On Modelling And Control Of WECS	28.12.2011 to 30.12. 2011	RMK Engg College
6.	B.Priyadharsini	Seminar On WECS	14.03.2015	VIT, Chennai
7.	All Faculty members	Assessment and Accreditation of Universities – By NAAC	09.04.2015	St.Peter's University
8.	All Faculty members	How to Instill Quality in Technical Education – Practical Approach	01.12.2014	St.Peter's University
9.	All Faculty members	Innovative Teaching Methodology	10.11.2014	St.Peter's University
10.	All Faculty members	Nanotechnology- Technology for the future	20.06.2014	St.Peter's University
11.	All Faculty members	Academic and Research program for 2014-15	18.06.2014	St.Peter's University
12.	All Faculty members	New Facility materials characterization using Spectroscopy	28.04.2014	St.Peter's University
13.	All Faculty members	Management of Students in present environment	21.4.2014	St.Peter's University
14.	All Faculty members	Awareness lecture on income tax,	07.04.2014	St.Peter's University

		professional tax, provident fund and employees state insurance		
15.	All Faculty members	Teaching – Learning process	08.04.2014	St.Peter's University
16.	All Faculty members	Preparing project proposals	10.04.2014	St.Peter's University
17.	All Faculty members	Achieving academic excellence and high quality research	30.10.2013	St.Peter's University
18.	All Faculty members	Concept development for inspiring innovation	01.10.2013	St.Peter's University
19.	All Female Faculty		01.09.2012	St.Peter's University
20.	All Faculty members	Personality Re-Engineering	02.09.2012 9.00 am – 1.30 pm	St.Peter's University
21.	All Faculty members	Motivation towards Teaching	11.08.2012	St.Peter's University
22.	All Faculty members	Personality Re-Engineering	11.09.2012	St.Peter's University

28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects - 99%**
- **percentage of students doing projects in collaboration with other universities /industry / institute - 1%**

Year	% of In-house Projects	% of project in collaboration with other University / Industry / Institute
B.E Projects		
2011 - 2015	100	-
2010 - 2014	100	-
2009 - 2013	94.18	5.82
2008 – 2012	94.18	5.82
2007 - 2011	-	-
M.E Projects		

2013 - 2015	100	-
2012 - 2014	100	-
2011 - 2013	100	-
2010 – 2012	100	-
2009 - 2011	100	-

29. Awards / recognitions received at the national and international level by

- **Faculty**

S. No.	Name of the faculty	Details
1	Dr.M.R.Mohan	Reviewer International Journal on IET generation, Transmission and Distribution

- **Doctoral / post-doctoral fellows**

S. No.	Registration No.	Name of the Ph.D. scholar	Title of the Thesis
1	SP 10 EE DA 75	Ms.V.Maheswari	High speed phase Multilevel Inverter on FPGA
2	SP 10 EE DA 76	Mr.V.Nanda Gopal	Design and Analysis of Various PWM Techniques for Buck – Boost Converter
3	SP 10 EE DA 78	Mr.K.Balaji	Adaptive Neuro Fuzzy Controller of Two-Stage KY Converter
4	SP 10 EE DB 95	Mr.Abdul Kareem	Soft Computing for the control of dynamic uncertain systems

30. Seminars/ Conferences/Workshops organized and the source of funding (national /international) with details of outstanding participants, if any.

Academic Year	Symposium	Conferences	Workshops
2011- 2012	1	-	-
2012- 2013	-	1	-
2013- 2014	1	1	1
2014-2015	1	1	-
Total	3	3	1

S. No.	Title of the program & period	Convenor/ Co-ordinator	National/ International	Funding Agency
1	Training programme on Solar PV and its applications 22 nd & 23 rd Aug 2013	R.Jayaraman	National	MSME
2	National Conference on Recent Trends in Power Processing and Applications 30 th March 2013	R.Jayaraman	National	St.Peter's University
3	ICGPC – 2014 3 rd & 4 th April 2014	R.Jayaraman	International	St.Peter's University
4	ICGPC – 2015 26 th & 27 th Feb 2015	R.Jayaraman	International	St.Peter's University
5	National Level Technical Symposium “EVOKE’11”	R.Jayaraman	National	St.Peter's University
6	National Level Technical Symposium “EXPONDERS’14”	R.Jayaraman	National	St.Peter's University

31. Code of ethics for research followed by the departments

- i. Researchers must respect the rights, interests and dignity of participants and related persons in research.
- ii. Research must be undertaken in accordance with any relevant common law or legislation.
- iii. Informed consent should normally be obtained from participants.
- iv. Consent itself should be given freely without force or coercion.
- v. Researchers have an obligation to protect research participants wherever possible from significant harm consequent upon the research.
- vi. The confidentiality of information supplied by research participants and any agreement to grant anonymity to respondents should be respected
- vii. All research involving human participants whether undertaken by academic staff, other university staff or students is to be subject to ethical approval. Where research projects fall within the scope of the NHS Research Governance Framework such research should be referred to an appropriate NHS Research Ethics Committee [1]. All other research concerning human participants should be dealt with through the University research ethics review structure.
- viii. Both the design of research and its conduct should ensure integrity and quality.

- ix. Research is to be undertaken subject to the principle of academic independence. Where any conflicts of interest or partiality arise, these must be clearly stated prior to ethical approval being obtained.

32. Student profile programme-wise:

Name of the Programme (refer to question no.4)	Applications received	Selected		Pass Percentage	
		Male	Female	Male	Female
B.E.,					
2010-2014	16	12	4	83.33	100
2011-2015	25	21	4	100	100
2012-2016	4	4	---	---	---
2013-2017	4	4	---	---	---
2014-2018	6	6	---	---	---
2015-2019	3	3	---	---	---
M.E.,					
2010-2012	7	2	5	100	100
2011-2013	18	14	4	92.86	100
2012-2014	19	12	7	100	100
2013-2015	12	9	3	66.6	100
2014-2018	3	3	---	---	---
2015-2019	2	1	1	---	---

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.E. (PED)	5.5	94.5	Nil	Nil
Ph.D. (EEE)	Nil	100	Nil	Nil

- 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

S.No.	Name of the student	Programme & Batch	Competitive Exams details
1	Shiv Kumar Saw	B.E (2011-2015)	GATE
2	Ahmed Sadique	B.E (2010-2014)	GATE

35. Student progression

Student progression	Percentage against enrolled				
	2010-11	2011-12	2012-13	2013-14	2014-15
UG to PG	1	1	1	1	---
PG to M.Phil.	NA	NA	NA	NA	NA
PG to Ph.D.	Nil	Nil	Nil	Nil	Nil
Ph.D. to post -Doctoral	Nil	Nil	Nil	Nil	Nil
Employed Campus selection	17	2	---	---	---
Other than campus recruitment	---	---	---	---	---

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	11.11
from other universities within the State	77.78
from universities from other States	11.11
from universities outside the country	Nil

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Nil

38. Present details of departmental infrastructural facilities with regard to

a) Library-

Department Library

EEE Books	Volumes	:525
	Titles	:338
	Video Lectures	
	Question banks	

On Line e-Journals through INDEST
AICTE Consortium

- IEEE (IEL)Online E-Journals :120
- Science Direct :32
- DELNET online :10
- DELNET Abstract :267
- International Journals :06
- National Journals :70
- NPTEL Lectures

b) Internet facilities for staff and students – YES

- Name of the Internet Provider : NKN + BSNL
- Available Bandwidth : 1 Gbps

c) Total number of class rooms – 07

d) Class rooms with ICT facility – YES

The department has 4 UG class rooms and 2 PG class rooms equipped with LCD projector and optional OHP facilities. An air conditioned seminar hall to accommodate about 300 students where in seminars, guest lectures, and department meetings are organized.

e) Students Laboratories

- Electrical Machines Laboratory
- Electric Circuits Laboratory
- Microprocessor and Micro controller Lab
- Control System Laboratory
- Measurements & Instrumentation Laboratory
- Power Electronics Laboratory
- Power System Simulation Laboratory

f) Research Laboratories

- Solar Energy Laboratory

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university – 01

S. No	Registration Number	Name of the Ph.D Scholar
1	SP14EED001	C.K.Kishore

b) from other institutions/universities

S. No	Registration Number	Name of the Student
1	SP13EE081	Mr.R.Essaki Raj
2	SP13EE082	Mr.S.Muthurajan
3	SP13EE107	Mr.A.Kamal
4	SP13EE108	Ms.N.Kiruthika Indumathi
5	SP13EE109	Ms.R.Padma Priyadharishini
6	SP13EED501	S.Dinesh Kumar
7	SP13EED502	M.Shunmuga Sankari
8	SP13EED503	S.Alwin
9	SP13EED504	M.K.Balachandran
10	SP13EED506	S.Boobalan
11	SP14EED502	Sundaram A
12	SP14EED503	Thirusenthil Kumaran P
13	SP14EED504	Sivaram P R
14	SP14EED505	Venkatesh V
15	SP14EED506	Thamizhkani B
16	SP14EED508	Saravana Kumar M N

40. Number of post graduate students getting financial assistance from the university.

Nil

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Nil

42. Does the department obtain feedback from

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, the department obtains feedback from faculty on the following and utilized to improve the curriculum and teaching, learning and evaluation etc.

- Curriculum Design and Development
- Teaching, Learning, Evaluation & Research
- Infrastructure
- Governance in department
- Organizing Seminars and workshops
- Organizing international/national conferences

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, the department obtains feedback from students on the following and utilized to improve the performance of staff, curriculum, teaching, learning and evaluation etc.

- Staff
- Academic
- Facilities
- Extension Activities
- Overall Observation

To change the teaching strategies to suit to students, curriculum updation, arranging international/national conferences, seminars, workshops, project exhibition etc.,

c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes, the department obtains feedback from alumni on the following and utilized to improve the curriculum, teaching, learning and evaluation etc.

- Relevance of curriculum in Job
- Need any change in curriculum and syllabi
- Improvements in teaching and learning Process

43. List the distinguished alumni of the department (maximum 10)

S. No.	Batch	Name of the Alumni	Company	Designation
1.	2008-12	Hanush Antony	CTS,DLF, Porur	Senior program analyst
2.	2010-14	Ahmed Sadhique	TCS, Hyderabad	Technical Associate
3.	2012-14	Deepan Cakravarthy	Acrologic Business solutions, Teynampet	Transaction executive
4.	2008-12	Jones Austin	INFOSYS, Bangalore	System Engineer
5.	2008-12	Rajeev Arya	VIT University, Chennai	Research Associate
6.	2008-12	Hari Prasad	Inser Hitech Engineers Ltd,Chennai	Testing and commissioning Engineer
7.	2009-13	Linga Kumar	Reliance RJIL 4G,Medavakkam	Electrical coordinator
8.	2009-13	Mridula	CTS,Taramani	Program Analyst
9.	2008-12	Muthu Kumar	WIPRO Technologies, Chennai	Project Engineer
10.	2010-14	Sathish kumar	ETA Star, Madhurai	MEP Engineer

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Student's enrichment programmes were organized involving external experts.

S.No.	Event Name	Event Date	External Experts
SPECIAL LECTURES ORGANIZED FROM 2010-2015			
1	Guest Lecture on, "Firing Circuits "	4.2.2013	Dr.N.Senthil Kumar
2	Guest Lecture on, "Solar Tracking Systems"	10.3.2013	Prof.A.Jagadhesh
3	Guest Lecture on, "Recent Trends in Power Electronics"	29.3.2013	Dr.P.Kothari
4	Guest Lecture on, "Ultra Capacitors on Regenerative Braking "	6.7.2013	Dr.K.Balagurunathan
5	Guest Lecture on, "Recent Trends in Energy Engineering"	7.9.2013	Dr.S.Iniyan
6	Guest Lecture on, "AC Drives and Trends "	6.2.2014	Dr.N.Senthil Kumar
7	Guest Lecture on, "Recent Trends in Concentrated solar panels "	7.3.2014	Dr. S. Iniyavan
8	Guest Lecture on, "Energy Conservation for a Better Future "	15.7.2014	Mrs.P.Loganayagee
9	Guest Lecture on, "Industrial Automation"	24.7.2014	Mr.G.Kanagaraj
10	Guest Lecture on, "Role of Power electronics Devices in Power System "	12.8.2014	Mr.A.Karthikeyan
11	Guest Lecture on, "DCS and its Applications "	26.9.2014	Mr.R.Arun Prasad
12	Guest Lecture on, "Power scenario in Tamil Nadu"	30.3.2015	Dr.S.R.KrishnaMurthy
13	Guest Lecture on, "Power Quality"	10.4.2015	Dr.C.Sharmeela, Anna University
14	Guest Lecture on, "Optimal Dispatch"	20.2.2015	Dr.M.R.Mohan, AMACE, Kancheepuram
WORKSHOPS ORGANIZED FROM 2010-2015			
1	Training programme on Solar PV and its applications	22,23.8.2013	Dr.Iniyan, Anna University

PLACEMENT TRAINING ORGANIZED FROM 2010-2015			
1	Live Life Curriculum for 1 st , 2 nd and 3 rd year students	2012-2013	Dr. Kannan Girish Psychiatrist, Ms.Jennifer
2	Training on Analytical and communication skills for final year students	2012-2013	Smart Training Resources Pvt. Ltd, Chennai
3	Live Life Curriculum for 1 st year students	2013-2014	Dr. Kannan Girish Psychiatrist, Ms.Jennifer
4	Training on Analytical and communication skills for final year students	2013-2014	Smart Training Resources Pvt. Ltd, Chennai
5	Training on Analytical and communication skills for final year students	2014-2015	Smart Training Resources Pvt. Ltd, Chennai
6	Training on Analytical and communication skills for final year students	2015-2016	Smart Training Resources Pvt. Ltd, Chennai

45. List the teaching methods adopted by the faculty for different programmes.

a. Teaching Aids

- OHP
- LCD
- VIDEOS

b. Teaching methods

- Lesson plan based on syllabus
- Class notes based on lesson plan
- Maintaining Log book for attendance marking and actual lesson covered
- Giving assignments
- Conducting Slip tests
- Conducting weekly test and model examination
- Internal assessment based on the above

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Conducting Unit Tests
- Conducting Model Exams
- Progress Reports
- Conducting class seminars
- Feedback from students
- Feedback from faculty

47. Highlight the participation of students and faculty in extension activities.

- Participation in Students Symposiums
- Participation in Conferences
- Participation in Students Workshops
- NSS
- Youth Red Cross

48. Give details of “beyond syllabus scholarly activities” of the department.

- Publish project and research work in conferences and symposiums
- Invited Lectures
- Training Programmes in state of art technologies.
- Edusat and video lectures

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

ISO 9001: 2008 Certified by TUV SUD South Asia private Limited.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Areas of specialization of present and future

Established Solar Energy lab
Published research papers in journals
Organising technical programmes on Renewable energy &
Power Electronics and drives

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

- Faculty with long teaching and industrial experience
- Well-equipped Laboratories with research facilities
- Interest shown in new and developing areas
- Computing facility for simulation with MATLAB, ETAP, PSCAD
- Access to international journals
- Interaction with Ambattur Industrial Estate Manufacturers Association (AIEMA)

Weaknesses

- Industry institute interaction not adequate.

Opportunities

- Growing energy sector with great employment opportunities in public and private sectors
- Collaboration with other universities
- Conducting training programmes with specialist associated specific areas from Industry.
- Research in emerging areas to be improved
- To get more funded projects.

Challenges

- To establish the centre of excellence in solar energy conversion.
- To encourage PG and PhD students and faculty to work on new and emerging areas with practical applications.
- Evolve and implement energy conservation measures and be a leader to other institutions and industries.
- To take projects and research to improve standard of living.

52. Future plans of the department.

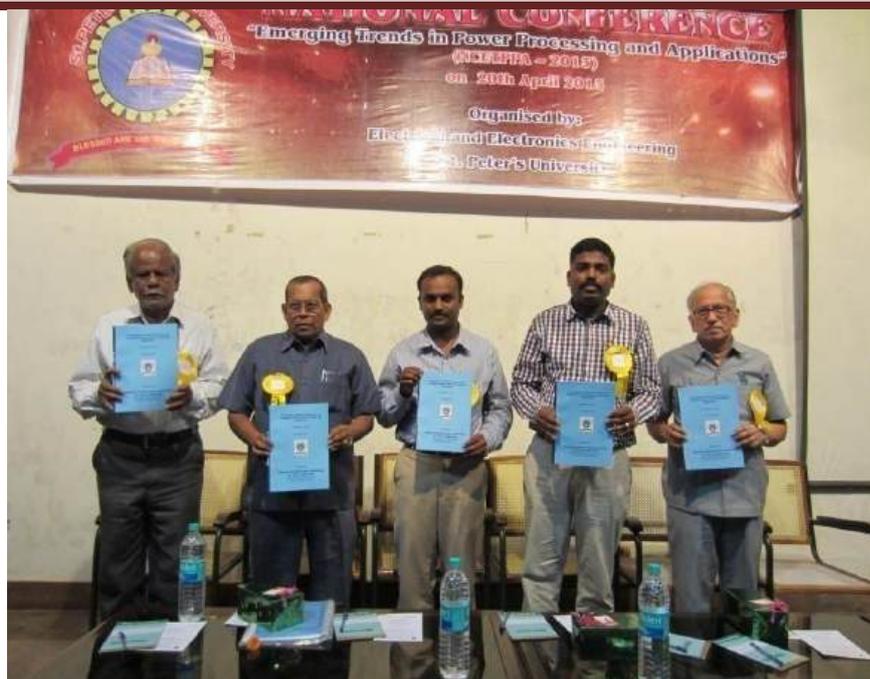
- To introduce PG course on Energy Systems.
- Value added short term courses in emerging areas like renewable energy, digital control systems and CAD for electrical engineers.
- To establish the centre of excellence in solar energy and its applications.
- To establish the energy auditing and energy conservation cell and provide consultancy in this area.
- Helping in the development of few villages with solar electrification, solar pumping recirculation of treated waste water and sanitation.



International Conference on Green Technologies for Power Generation and Communication (ICGPC 2014), February 26th and 27th 2015.



International Conference on Green Technologies for Power Generation and Communication (ICGPC 2014), April 3rd and 4th 2014.



National Conference on Emerging Trends in Power Processing and Applications (NCETPPA- 2013), April 20th 2013.



Training Programme on Solar Photo Voltaic Panels and Its Applications, August 22nd and 23rd 2013.



National Level Technical Symposium Xponders'14 , 2014.



MSME funded Solar Powered PV Modules to Micro Grids (Ongoing Project)



MSME funded Integrated Starter Generator for Automobile using Induction Machine (Ongoing Project)



National Centre for Photovoltaic Research and Education, IIT Bombay, supported by MNRE Funded Solar Simulator.