



## RESUME

**Dr.K.SAMI DURAI B.E., M.Tech., Ph.D.,FIE.,LMISTE**

PLOT NO.9, FIRST MAIN ROAD, MANGALA NAGAR, SAKTHI NAGAR (POST)  
PORUR, CHENNAI – 600 116, Tamilnadu

### **EDUCATIONAL QUALIFICATION:**

Degree	Branch/specialization	Institution	Month& Year of passing	Class
B.E	Electrical & Electronics Engg.	Coimbatore Institute of Technology, Coimbatore	Nov' 1992	First
M.Tech	Power systems	National Institute of Technology, Trichy	June'2005	First
Ph.D	Power Electronics& Drives	Anna university, Chennai	June 2012	

### **TEACHING EXPERIENCE: 13 1/2 Years**

Designation	Name of the Institution	From	To	Years of Experience
Professor/EEE	Prathyusha Institute of Technology & Management, Chennai	02.05.2013 onwards		2 ½
Professor& Head Dept.of EEE	Akshaya College of Engg & Tech, Coimbatore	01.06.2011	26.04.2013	2
Assistant professor/EEE	Karpagam College of Engineering Coimbatore	08.08.2005	31.05.2011	6

Designation	Name of the Institution	From	To	Years of Experience
Head Dept of EEE	Karpagam polytechnic College, Coimbatore	12.06.2000	19.05.2003	3

**INDUSTRIAL EXPERIENCE: 7 years**

Designation	Name of the organization	From	To	Years/Months of Experience
Engineer- Production	Middle East switchgear .Ltd,Sharjah,U.A.E	18.04.97	20.04.2000	3
Engineer – Design	S.F.O(Muscat) L.L.C, Oman	15.05.1996	28.03.97	1
Engineer – Electrical Systems Design	Boving Fouress Ltd, Bangalore	05.02.94	30.04.1996	2 Yrs/2months
Engineer– Design & Sales	Safety Electrical Co. LLC, Dubai,U.A.E	02.05.93	03.02.94	9 months

**Membership in Professional Bodies:** Life member of ISTE (**LMISTE**), New Delhi.

Fellow of Institution of Engineers India (**FIE**)

**Paper Publications:** National Conferences –3 International Conferences -4

International Journals – 7

**Personal Details:**

**Father's Name** : P.Kandasamy

**Date of Birth & Age:** 05-07-1967 48 years

**Sex** : Male

**Marital Status** : Married

**Passport Details:**

Passport No: L9179005

Issued on : 22-05-2014

Expires on : 21-05-2024

Issued by : Passport office, Coimbatore, Tamil Nadu, India

**SUBJECTS TAUGHT DURING THE PAST TEN YEARS:**

**Under graduate:**

Power Electronics, Power system protection, Power Quality Engineering, Power System analysis, High Voltage Engineering, Circuit theory, Electromagnetic theory, Basics of Electrical & Electronics Engineering. Special electrical machines.

**Post graduate:**

Analysis of power converters, Special machines, Solid state drives and controls.

**SPECIAL ACHIEVEMENTS**

- ❖ Three times 100% results produced in the theory course titled “High Voltage Engineering”
- ❖ Two times 100% results produced in the theory course titled “Power Quality Engineering”
- ❖ 100% results produced in the theory course titled “Special electrical machines”
- ❖ Member in the execution team involved in design, erection and commissioning of 750 kW Mini hydel power station across river moyar at Maravakandy near Gudalur for Tamilnadu State Electricity Board.
- ❖ Member in the execution team involved in design, erection and commissioning of 2 MW Mini hydel power station at Sirnyuk for Department of power, Arunachal Pradesh.
- ❖ Member in the execution team involved in design, erection and commissioning of 2 MW Mini hydel power station at Moyangchu for Department of power, Sikkim.

- ❖ Member in the execution team involved in design, erection and commissioning of 1 MW Mini hydel power station with Induction generator unit at palayar across river Krishna for Andhra Pradesh state electricity board.
- ❖ Member in the execution team involved in design, erection and commissioning of auto power transfer panels at government hospitals and palaces in sultanate of oman.

## SPECIFIC CONTRIBUTIONS

- ❖ Co-ordinator for international conference on “Intelligent systems and control” organized by Karpagam College of Engineering held in the years 2010 and 2011 (ISCO 2010, ISCO 2011)
- ❖ Co-ordinator for the national conference on “Current Trends in Emerging Technologies ” organized by Akshaya College of Engineering &Technology, Coimbatore in the year 2013.
- ❖ Co-ordinator for Faculty development programme on “Network Analysis and Synthesis & Electromagnetic theory” organized by Akshaya College of Engineering &Technology, Coimbatore in association with Anna University of Technology, Coimbatore held between 18.07.2012 and 23.07.2012.
- ❖ Publication in Case study section of ‘Integrated Innovations+’. A book published by Mission10X center of Wipro Technologies Ltd, India.
- ❖ Invitee of TANGEDCO to give special address among general public on the topic of “ Importance of Energy Conservation”
- ❖ Established IE(I) students’ chapters for all branches of engineering in Prathyusha institute technology and management, Chennai.
- ❖ Guide for the **project** titled “**Electronic accelerator and steering mechanism for the electrical vehicle of a physically challenged**” which **won the silver medal in the all India engineering students design contest-2013 organized by National Design and Research Forum (NDRF), Bangaluru belongs to Institution of Engineers (I), Kolkatta.**
- ❖ Had been one of the resource persons for a AICTE sponsored two day all India seminar on “ Power electronics for renewable energy systems” organized by Prathyusha Institute of Technology and Management, Chennai
- ❖ Coordintaor for anna university approved seven days “Faculty Development Training Programme (FDTP) on “EE-6403 – Discrete time systems and signal processing” held at Prathyusha Institute of Technology and Management, Chennai between 08<sup>th</sup> Dec and 14<sup>th</sup> Dec 2014

- ❖ Ministry of New and Renewable Energy (MNRE) sanctioned Rs. 50,000/- to organise the seminar titled “ Renewable energy production and challenges” for grant –in –aid to the tune of one lakh rupees.

### **LABORATORY MANUALS PREPARED**

Electrical machines lab, Electric circuits lab, Measurements & Instruments lab, Engineering practices lab, Power electronics lab and Electronic devices & circuits lab.

### **DETAILS OF LABORATORIES ESTABLISHED**

Electrical machines lab, Electric circuits lab, Measurements & Instruments lab, Engineering practices lab, Power electronics lab and Electronic devices & circuits lab.

### **RESEARCH AND DEVELOPMENT ACTIVITIES**

**Recognised as supervisor by the Faculty of Electrical Engineering, Anna university, Chennai (Ref.No. 2330197) for its Ph.D and M.S.(By Research) programmes.**

### **GUEST LECTURE**

Guest lectures delivered on

- i) “Latest trends in Electrical sciences” at IEEE Madras section on 22.08.2105.
- ii) “ Cyclo-Converters” at Velammal Engineering College, Chennai on 26.09.2015

### **CONSULTANCY**

Consultancy offered

- i) To foundries on design and implementation of detuned filters for power quality enhancement.
- ii) For remote control of offset printing and allied machineries using zigbee.

### **FUNDS RECEIVED**

- I) To organise One week faculty development programme on “Network analysis and synthesis & Electromagnetic theory” Rs.50,000 was sponsored by Anna university of technology, Coimbatore.

- II) To organise the seminar titled “Renewable energy production and challenges” Ministry of New and Renewable Energy (MNRE) sanctioned Rs. 50,000/- as grant –in –aid.

**OTHER ACADEMIC RESPONSIBILITIES BEING CARRIED OUT:**

➤ **Member in question paper setting board of :**

- Sri Ramakrishna Engineering College, Coimbatore.
- Karpagam University, Coimbatore.

➤ **Member in paper evaluation board of :**

- Karpagam University, Coimbatore
- Sri Ramakrishna Engineering College, Coimbatore.

➤ **Member in question paper review board of** Dr.Mahalingam College of Engineering and Technology, Pollachi.

➤ **Project guide for Post graduate students** of Faculty of Electrical Engineering, Manipal University, Karnataka.

➤ **Reviewer for the journals of** International Journal of Energy, Power and Artificial Intelligence, Malaysia, Journal of Engineering and Technology, Medknow publications etc.,

**PAPERS PUBLISHED IN NATIONAL CONFERENCES**

1. K.Sami Durai , S. Sampath kumar, S. Senthil kumar , “Fuzzy logic based sensor less direct torque control of Induction motor drive” National conference on power electronics and Control (NCPEIC – 2007) March-2007, MNIT, Jaipur.
2. K. Sami Durai, S. Sampath kumar “Torque ripple minimization and dynamic performance of SVPWM Based direct torque control for Induction motor drives” CTCT – 08, March-2008, CIET, Coimbatore.
3. S. Sampath Kumar, S. Senthil Kumar, K.Sami Durai “ Reduction Of Ripples And Flux Droop In Sensorless Direct Torque Controlled Induction Motor Drive” National

conference on power electronics and Control (NCPEIC – 2007) March-2007, MNIT, Jaipur.

### **PAPERS PUBLISHED IN INTERNATIONAL CONFERENCES**

1. Samidurai K., and Thanushkodi, K. “Performance Comparison of Single-phase Power Electronic Controllers”, 4<sup>th</sup> International Power Engineering Optimization Conference, PEOCO 2010, Malaysia, Organized by Universiti Teknologi Mara, Malaysia, 2010.
2. Samidurai, K. and Thanushkodi “ Performance comparison of different voltage regulation methods proposed for the speed control of capacitor-run induction motors” 4<sup>th</sup> International conference on intelligent systems and control(ISCO 2010), February-2010, organized by Karpagam College of Engineering,Coimbatore, India.
3. Samidurai, K. and Thanushkodi, K. “An Improved Energy Saving Scheme using High Frequency Link AC/AC Converter”, IEECONS, organized by Kumaraguru College of Technology, Coimbatore, 2009.
4. Samidurai, K. and Mohindar.E, “Cost effective resonant power converter for solar photovoltaic plants ”, International conference on Recent Research Issues in Electrical Engineering (ICRRIEE), organized by Sri Subramania College of Engineering & Technology, Coimbatore, March 2015.

### **PAPERS PUBLISHED IN INTERNATIONAL JOURNALS**

1. Samidurai, K. and Thanushkodi, K. “An Improved Power Quality Scheme Using High Frequency Link AC/AC Converter”, International Journal of Energy, Power and Artificial Intelligence, Vol. 1, Issue 3, December 2009, pp. 137-140, 2009.
2. Samidurai, K. and Thanushkodi, K. “Digital Simulation of Electronic Transformer Based Single phase Induction motor drive”, International Journal of Computer and Network Security, Vol. 2, Issue 1, January 2010, pp. 30-34, 2010.

3. Samidurai, K., Saravana Elango, G., Roykumar, M. and Thanushkodi, K. “Energy Efficient Power Electronic Controller for a Capacitor-run Single-phase Induction Motor”, **ELSEVIER Journal of Energy Conversion and Management**, Vol. 50, Issue 9, September 2009, pp. 2152-2157, 2009.
4. Samidurai K. and Thanushkodi K., “Constant flux control based single-phase induction motor drive”, **International Review of Electrical Engineering**, Vol.5.n.4, August 2010, pp.1538-1548, 2010.
5. Samidurai.K, Muruganath.G, Muthukrishnan.S,Vijayan.S “ Fuzzy Tuned PI Controller Based Chopper Driven PMDC Motor for Orthopaedic Surgeries”, **Australian Journal of Basic and Applied Sciences**,Vol.8, Issue1,January 2014,pp.256-264,2014.
6. Samidurai.K, A,Priya “Simulation and analysis of a zeta converter for grid connected AC module application” *International journal of innovative research and development* Vol.3, Issue 2,pp.528-532, 2014.
7. G.Muruganath, Samidurai K., S.Vijayan and S.Muthukrishnan “Experimental Validation of Fuzzy Tuned AWPI Controller Based Chopper Controlled Drive for PMDC Motor” **Journal of Testing and Evaluation , ASTM international, USA** Vol.No. 43, Issue 6, 2014.

#### **PAPERS ARCHIEVED IN IEEE EXPLORE**

1. Samidurai, K. and Thanushkodi, K. “Performance Comparison of Single-phase Power Electronic Controllers”, D.O.I 10.1109/PEOCO.2010.5559210, pp.107-111, 2010.

#### **PAPERS UNDER REVIEW IN INTERNATIONAL JOURNALS**

1. Samidurai K., G.Muruganath, S.Vijayan and S.Muthukrishnan “Simulation and Analysis of Fuzzy Tuned AWPI based Chopper Controlled drive for PMDC Motor” **Journal of Intelligent and Fuzzy Systems**.
2. G.Muruganath, Samidurai K., S.Vijayan and S.Muthukrishnan “BELBIC based chopper controlled drive scheme for PMDC motor” **Applied Soft Computing – Elsevier Ltd**.



## **PATENTS FILED**

1. Yaw control of wind turbine using fuzzy logic controller (Application No. 2347/CHE/2014, Docket no. 13519 dated 09/05/2014)
2. Hands-free electrically powered wheel-chair system (HAFEPS) for physically challenged (Application No. 2344/CHE/2014, Docket no. 13515 dated 09/05/2014)

## **CONFERENCES/ WORKSHOPS/ FDPS/ SEMINARS ATTENDED**

1. Two day workshop on “High impact training skills” organized by Dale Carnegie training associates USA in association with Wipro technologies Ltd held on 5<sup>th</sup> & 6<sup>th</sup> November 2009.
2. One week Mission10X workshop on “Learning Approach” organized by Wipro Technologies Limited in association with Indian Society for Technical Education conducted at Sri Ramakrishna Engineering College, Coimbatore held between 5.10.2009 and 09.10.2009.
3. Three day national level workshop on “ Introduction to PSCAD fundamentals and its applications” organized by M/s Nayak power systems, Bombay in association with Akshaya College of Engineering and Technology, Coimbatore held between 15<sup>th</sup> and 17<sup>th</sup> July 2011.
4. One week faculty development programme on “Network analysis and synthesis & Electromagnetic theory” organized and sponsored by Anna university of technology, Coimbatore held between 24.06.2011 and 30.06.2011.
5. One week Anna university, Chennai sponsored faculty development programme on “Special electrical machines” organized by P.S.N.A College & Technology, Dindigul held between 05.12.2005 and 09.12.2005.
6. One day workshop on “Challenges and opportunities in power systems engineering” organized by Akshaya College of Engineering and Technology, Coimbatore held on 11.02.2012.

7. 4<sup>th</sup> International Power Engineering Optimization Conference, PEOCO 2010, Malaysia, Organized by Universiti Teknologi Mara, Malaysia, 2010.
8. 4<sup>th</sup> International conference on intelligent systems and control (ISCO 2010), February-2010, organized by Karpagam College of Engineering, Coimbatore, India.
9. 5<sup>th</sup> International conference on intelligent systems and control (ISCO 2011), February-2011, organized by Karpagam College of Engineering, Coimbatore, India.
10. National conference on power electronics and Control (NCPEIC – 2007) March-2007, MNIT, Jaipur.
11. National conference on current trends in Computer technologies CTCT – 08, March-2008, CIET, Coimbatore.
12. International conference on electrical engineering and control systems IEECONS, organized by Kumaraguru College of Technology, Coimbatore, 2009.
13. Two day national level workshop on “Virtual instrumentation in electric drives” conducted by Karpagam College of engineering in association with National Instruments (I) Limited and Siemens (I) limited on 20<sup>th</sup> and 21<sup>st</sup> march 2009.
14. One week faculty development programme on “Special machines” organized and sponsored by Anna university, Chennai held between 11.07.2008 and 16.07.2008 in PSNA college of Engineering & Technology, Dindigul, Tamilnadu.
15. One day faculty development programme on “Renewable energy- Energy of the future” organized by Karpagam College of Engineering, Coimbatore on 20<sup>th</sup> August ‘2005.
16. Two day faculty development programme on “Wind power generation and strategies to improve power handling capacity” organized by Karpagam College of Engineering, Coimbatore on 18<sup>th</sup> and 19<sup>th</sup> February ‘2006.
17. One day faculty development programme on “Energy audit management” organized by Karpagam College of Engineering, Coimbatore on 4<sup>th</sup> April ‘2009.

18. Two day national level workshop on “ Research issues in the field of instrumentation” conducted by Karpagam College of engineering in association with Council for Scientific and Industrial Research held between 28<sup>th</sup> and 29<sup>th</sup> January 2011.
19. Two day national level workshop on “MATLAB, SIMULINK and LAB VIEW for Engineering applications” conducted by Karpagam College of engineering held between 3<sup>rd</sup> and 4<sup>th</sup> March 2011.
20. One week faculty development programme on “Virtual Instrumentation and Industrial automation” organized by Karpagam College of Engineering, Coimbatore in association with All India Council for Technical Education held between 11<sup>th</sup> and 16<sup>th</sup> July 2011.
21. One week industrial training course on “Electrical Design of Switchgear Assembly” conducted by Larson & Toubro switchgear training centre, Pune between 10.04.95 and 13.04.1995.
22. Two day Faculty development programme on “Effective teaching methodology” organized by the department of training and placement, Karpagam College of Engineering, Coimbatore held between 15<sup>th</sup> and 16<sup>th</sup> November 2006.
23. Two day all India seminar on “Recent Trends in Power sector and Quality of Power” organized by Institution of Engineers(I), Tamilnadu state centre, held at Chennai between 30<sup>th</sup> and 31<sup>st</sup> August 2013
24. User conference on “Effective utilization of NPTEL (National Programme for Technology enhanced Learning) organized by IIT-M in association with MHRD, held at Chennai on 20<sup>th</sup> September 2013.

**Declaration :** Certified that all the aforesaid information are true to the best of my knowledge.



**Dr.K.Samidurai**