

# Dr.N.M. JOTHI SWAROOPAN

Professor/EEE

R.M.K Engineering College R.S.M.Nagar, KavaraiPettai– 601 206.  
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## Educational Qualification

Sl.No.	Name of the course	Name of the Institute/ university	Academic year	Class/CGPA
1.	B.E.	NICE/M.S University	1997	I class
2.	M.E.	College of Engineering, Guindy, Chennai/Anna University	2005	7.9
3.	Ph.D	College of Engineering, Guindy, Chennai/Anna University	2011	-

## Academic Experience

Sl.No.	Designation	Institution	Department	Period of service	Total service
1.	Professor	RMK Engineering College	Electrical & Electronics Engineering	June 2011 to Till Date	7years
2.	Professor	Saveetha School of Engineering, Saveetha University	Electrical & Electronics Engineering	June 2009 to 2011	2 years
3.	Asst. Professor	S.A. Engineering College, Chennai- 77.	Electrical & Electronics Engineering	2006 to 2009	3 years
4.	Senior Lecturer	Sri Muthukumaran Institute of Technology, Chennai-69	Electrical & Electronics Engineering	2000 - 2006	6 years
5.	Lecturer	Jerusalem Engineering College, Chennai-601 302	Electrical & Electronics Engineering	1997 - 2000	3 years
Total Years of Experience					21 Years

## **Publications- Journal**

1. S. Kirthiga , **N.M. Jothi Swaroopan**, “ Highly reliable inverter topology with a novel soft computing technique to eliminate leakage current in grid-connected transformer-less photovoltaic systems, Computers and Electrical Engineering, ELSVIER, Vol. 68, pp.192–203,June 2018
2. P. Sivagami, **N. M. Jothi Swaroopan**, “ Performance Measures of Positive Output Superlift Luo Converter Using Multitudinous Controller” , International Journal of Power Electronics and Drive System, Vol. 9, No. 2, pp. 704-711, June 2018
3. P. Sivagami, **N. M. Jothi Swaroopan**, “Perlustration On Multifarious Converters,For Renewable Energy Source” International Journal of Pure and Applied Mathematics, Vol. 118 No. 24, pp.1-20, April 2018
4. **Jothi Swaroopan, N.M.**, Durgapriya, K.V. and Gosi Swaroopa, Jollireddy Divyasree, “Efficient Transformer-less Super Junction MOSFET Inverter”, International Journal of Recent Advances in Multidisciplinary Research, Vol. 05, Issue 03, pp.3676-3683, March, 2018
5. **Jothi Swaroopan, N.M.**, Mohan Kumar, M., Sharath Kumar, D. and Hemanth, S., “Power Management In Intelligent Based Daily Demand Forecast”, International Journal of Recent Advances in Multidisciplinary Research, Vol. 05, Issue 03, pp.3671-3675, March, 2018
6. **Dr.N.M Jothi Swaroopan** , Dr.T. Magesh, A.Vinith, N.Yuvaraj, C.Naveen, “Implementation of Single Phase Cascaded Multilevel Inverter with Multi-Carrier PWM Technique Connected to Grid, International Journal of Engineering and Techniques, Volume 4 Issue 6, pp.526-532,Apr 2018
7. S. Kavitha, Varghese Paul and **N.M. Jothi Swaroopan**, “Biometric Emotion Recognition Using Adaptive Neuro Fuzzy Inference

System" Middle-East Journal of Scientific Research, Vol 25, No. 8, PP. 1644-1649, 2017

8. S.Kirthiga and **N.M.Jothi Swaroopan**, "Design and Implementation of Closed Loop Voltage Mode DC-DC Boost Converter for Stand Alone PV Power System" International Journal of Applied Engineering Research, Vol.10, No. 80,PP. 33-35,2015
9. E.Vetri ,**N.M.Jothi Swaroopan** and M. Perarasi, "Mitigation of Ripple Content Using Coupled Inductor Based KY Converter" International Journal of Applied Engineering Research Vol.10, No.44,pp..30815-30820,2015
10. **N.M.Jothiswaroopan**, A.R.M.Sasidhar, "Grid Connected DC Voltage Control with MPPT by Buck/Boost Converter," International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Special Issue 2, pp.431- 436, April 2014
11. V.Shanthamoorthy, **N.M.Jothiswaroopan**, "Design of Intelligent Controller to Reduce the Torque Ripple in a Brushless Dc Motor Drive," International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Special Issue 2, pp.467- 476, April 2014
12. A.Jaya Mabel Rani, Latha Parthiban, **N.M. Jothi swaroopan**, "An Efficient Intelligent Clustering Tool based on Hybrid Fuzzified Algorithm for Electrical Data," International Journal of Computer Applications, Volume 84 – No 8, pp. 30 – 36, December 2013
13. P.Somasundaram, **N.M. Jothi Swaroopan** "Fuzzified PSO Algorithm For Multi-Area Security Constrained Economic Dispatch , "Electric power components & Systems, Taylor & Francis, Vol.39,No.10, pp. 979-990, July2011.

14. **Jothi Swaroopan, N.M.** , Somasundaram, P. “Power System Optimization Under Uncertainties: A Fuzzy Modulated PSO Approach”, Conference on Recent Advances in Biomaterials, Saveetha University, Recent Research in Science and Technology, Vol 2, No.12,pp. 67-82, 2010.
15. **N.M. Jothi Swaroopan**, Somasundaram P. (2010) ‘Fuzzified PSO Algorithm for OPF with FACTS devices in interconnected power systems **International Conference** on Swarm, Evolutionary and Memetic Computing 2010, SRM University, Chennai, , pp. 918-926, December 2010.
16. **N.M. Jothi Swaroopan**, “A Novel Combined Economic and Emission Dispatch Control by Hybrid Particle Swarm Optimization Technique, “Majlesi Journal of Electrical Engineering, vol 4,No 2, June 2010.
17. **N.M. Jothi Swaroopan**,, P.Somasundaram, “Fuzzified PSO Algorithm for DC-OPF of Interconnected Power System, “Journal of Theoretical and Applied Information Technology, vol 17, July 2010, pp 1-10.
18. **N.M. Jothi Swaroopan**, V.M. Varatharaju, P.Somasundaram, “UPFC A Versatile Facts Devices for Load and Transient Stability, “International Journal of Electrical Engineering and Embedded Systems (IJEES), vol 1,No 1,pp 33-40, June 2009.

## **Publications- Conference**

1. **“Optimal Power Flow for Security Enhancement using Fuzzified Particle Swarm Optimization”** in Second International Conference on Sustainable Energy and Intelligent System at Dr. M.G.R. University, Maduravoyal, Chennai, Tamil Nadu, India. July. 20-22, 2011.
2. **“Fuzzified Particle Swarm Optimization Algorithm for Combined Economic and Emmission Dispatch”** in International

Conference on Future Engineering Trends at Saveetha university  
Chennai in 29<sup>th</sup> & 30<sup>th</sup> April 2010.

3. **“Power System Optimization under Uncertainties: A fuzzy modulated PSO Approach”** in International Conference on Recent Advances in Biomaterials at Saveetha University Chennai in 17<sup>th</sup> & 18<sup>th</sup> December 2010.
4. **“A Novel Hybrid PSO Technique for Combined Economic and Emission Dispatch”** in International Conference on Recent Advances in Electrical Sciences at KSR College of Engineering, Tiruchengode in 8<sup>th</sup> & 9<sup>th</sup> January 2010.
5. **“Multi Area Security Controlled Economic Dispatch by Fuzzy Stochastic Algorithms”** in National Conference on Load Shedding/Restoration to Power Supply Shortage at Park college of Engineering & Technology in 4<sup>th</sup> & 5<sup>th</sup> September 2009.
6. **“Fuzzy Based Power Oscillation Damping Controller STATCOM for damping Power Oscillation”** in International Conference on Electrical Energy Systems and Power Electronics at SRM University , Chennai in 16<sup>th</sup> & 17<sup>th</sup> April 2009.
7. **“Transient Stability Enhancement with UPFC”** in International Conference o Information of Communication Technology in Electrical Sciences at Dr. MGR University, Chennai in 20<sup>th</sup> to 22<sup>nd</sup> December 2007.
8. **“Control Strategy of FACTS devices for Load flow and Transient stability Analysis”** in National Conference on Power System and Power Electronics at St. Joseph’s College of Engineering, Chennai in 31<sup>st</sup> January 2007.

## Awards and Achievements

1. **Green Energy Developer Award** in Vision 2020 -All India Development National Conference, Sri Ramakrishna College, Trichy, Tamilnadu, May 2018.
2. **Young Men Engineer award** by IET, UK Younger Professional section, Chennai during year 2010.
3. **Achievement Award** by IET,UK Younger Professional section, Chennai during year 2009.
4. **Best Teacher Award** by Sir MuthuKumaran Institute of Technology, Chennai during year 2004.

## International Visit

1. **Participated in Lunabotics Mining Competiton-2011 at Kennedy Space Centre, NASA, USA.**
2. **Visited **Srilanka** for South Asia IET Volunteers Conference**

## Workshop/conference/FDP Attended

1. Participated "India Innovation Initiative – National Fair 2016" New Delhi, 2016
2. Work shop on "Research Methodology" Anna University, Chennai, 2016
3. Work Shop on "Outcome Based Accreditation" NBA, Delhi, 2015
4. Work shop on "Quality Improvement Cell" Anna university, Chennai, 2015
5. Workshop on " ENERGY Lecture "organized by IET, India,2014
6. Workshop on "**Fabrication and Application of Novel Nano Sensor**" conducted by Saveetha University, Chennai during 31<sup>st</sup> August 2011.

7. Faculty Development Programme on “**Simulation Tools- NS2 & PsPice**” conducted by Saveetha University, Chennai during 10<sup>th</sup> to 12<sup>th</sup> November 2010.
8. Participated in “**YPSC Conference 2010**” conducted by IET,UK Young Professional Section, Chennai during 19<sup>th</sup> September 2010.
9. Workshop on “**Life skill Development**” conducted by IET,UK Young Professional Section, Chennai during 19<sup>th</sup> September 2010.
10. Workshop on “**Image Processing Technique**” conducted by IET,UK Chennai Network during 13<sup>th</sup> March 2010.
11. Participated in “**YPSC Conference 2009**” conducted by IET,UK Young Professional Section, Chennai during 26<sup>th</sup> September 2009.
12. Workshop on “**High Impact Teaching Skills - Mission 10X**” conducted by Wipro Technologies, Chennai, during 27<sup>th</sup> to 31<sup>st</sup> December 2009.
13. Workshop on “**Trouble Shooting in House hold Appliances & Computer Assembly**” conducted by IETSAEC students chapter, S.A Engineering College, Chennai during 12<sup>th</sup> March 2009.
14. Workshop on “**Researchers Meet 2009**” conducted by IET,UK Young Professional Section, Chennai during 25<sup>th</sup> July 2009.
15. Workshop on “**Smart Grids and Active Distribution networks**” conducted by Dr. MGR University, Chennai during 30<sup>th</sup> November 2009.

16. Workshop on **“Life skill Development”** conducted by IET,UK Young Professional Section, Chennai during 26<sup>th</sup> September 2009.
17. Workshop on **“Micro System Packaging”** conducted by Saveetha University, Chennai during 14<sup>th</sup> July 2009.
18. Workshop on **“Six Sigma Process”** conducted by S.A Engineering College, Chennai during 7<sup>th</sup> & 8<sup>th</sup> February 2008.
19. Workshop on **“Energy Crisis- Remedial Measures”** conducted by S.A Engineering College, Chennai, during 3<sup>rd</sup> & 4<sup>th</sup> January 2008.
20. Participated in **“National Conference on High Performance Computing ”** conducted by S.A. Engineering College, Chennai during 24<sup>th</sup> & 25<sup>th</sup> January 2008.
21. Workshop on **“Research Methodology”** conducted by IET,UK Young Professional Section, Chennai during 19<sup>th</sup> July 2008.
22. Short Term Training Programme on **“Modeling of FACTS Devices and its Applications”** conducted by SRM University, Chennai, during 27<sup>th</sup> & 28<sup>th</sup> January 2007.
23. Workshop on **“High Frequency Switch Mode Power Supply”** conducted by Jerusalem Engineering College, Chennai during 16<sup>th</sup> December 2004.
24. Workshop on **“Artificial Neural Network”** conducted by Sir Muthu Kumaran Institute of Technology, Chennai during year 5<sup>th</sup> & 6<sup>th</sup> March 2004.



25. Workshop on “**Embedded System Technology**” conducted by Sir Muthu Kumaran Institute of Technology, Chennai during 24<sup>th</sup> & 25<sup>th</sup> January 2003.

#### **Workshop/conference/FDP/ Symposium Organized**

1. National Conference on “Recent trends in power engineering, power electronics and control systems” July 2016
2. Work shop on “**Design of Automotive Robo**” in RMK Engineering College during 25<sup>th</sup> June 2015
3. Organizer for One day International Workshop On Optoelectronic Devices and Embedded systems, 2014
4. Work shop on “**Power Simulation Tools- PSCAD & ETAP**” in RMK Engineering College during 23<sup>rd</sup> September 2013
5. Work shop on “**How to Plan, Write and Publish Research Paper in Refereed Journal**” in RMK Engineering College during 07<sup>th</sup> December 2013
6. Work shop on “**Optoelectronic Devices and Embedded systems**” in RMK Engineering College during 3<sup>rd</sup> January 2013
7. Workshop on “**Trouble shooting of Consumer Appliances**” in Saveetha University, Chennai during 18<sup>th</sup> November 2011.
8. Seminar on “**Positive Thinking & Life Achievements**” in Saveetha University, Chennai during 17<sup>th</sup> November 2011.
9. Seminar on “**Awaking India- Swami Vivekananda’s 150<sup>th</sup> Birth day celebrations**” in Saveetha University, Chennai during 1<sup>st</sup> October 2011.

10. Conference on **“YPSC Awards and Medals 2011”** conducted by IET,UK Young Professional Section, Chennai during 25<sup>th</sup> September 2011.
11. Workshop on **“Fabrication and Application of Novel Nano Sensor”** in Saveetha University, Chennai during 31<sup>st</sup> August 2011.
12. Workshop on **“ Practical Exposure to SCADA & PLC”** in Saveetha University during 5<sup>th</sup> & 6<sup>th</sup> August 2011
13. Workshop on **“ Your Gate Way to Embedded System”** in Saveetha University, Chennai during 15<sup>th</sup> July 2011.
14. Faculty Development Programme on **“ Self Motivation and Team Building”** in saveetha University during 7<sup>th</sup> and 8<sup>th</sup> July 2011.
15. National Conference on **“Emerging Trends in Micro/Nano Electronic Technology”** in
16. Saveetha University, Chennai during 8<sup>th</sup> April 2011.
17. **Summer Internship Programme for Schools (SIPS)** in Saveetha University, Chennai during 2<sup>nd</sup> & 3<sup>rd</sup> May 2011.
18. An Exclusive Meet for Diploma Principals and Students- **“Turning Point - 2011”** in Saveetha University during 11<sup>th</sup> March 2011
19. **Present Around the world Conference- India 2010** in Saveetha University during 17<sup>th</sup> July 2010.
20. International Conference on **“Recent Advances in Biomaterials”** in Saveetha University, Chennai during 17<sup>th</sup> & 18<sup>th</sup> December 2010.

21. Faculty Development Programme on **“Simulation Tools- NS2 & PsPice”** in Saveetha
22. University, Chennai during 10<sup>th</sup> to 12<sup>th</sup> November 2010.
23. International Conference on **“Future Engineering Trends”** in Saveetha University, Chennai in during 29<sup>th</sup> & 30<sup>th</sup> April 2010.
24. Workshop on **“Trouble Shooting in House hold Appliances & Computer Assembly”** in IETSAEC student’s chapter, S.A Engineering College, Chennai during 12<sup>th</sup> March 2009.
25. Workshop on **“Researchers Meet 2009”** in IET,UK Young Professional Section at Hotel Chennai Deluxe, Chennai during 25<sup>th</sup> July 2009.
26. Workshop on **“Micro System Packaging”** in Saveetha University, chennai during 14<sup>th</sup> July 2009.
27. Short Term Training Program on **“ Mat lab -A Practical Approach”** in Saveetha University, Chennai during 28<sup>th</sup> & 29<sup>th</sup> November 2009.
28. Work Shop on **“Trouble Shooting of Electrical & Electronics Devices”** in saveetha university 14<sup>th</sup> October 2009.
29. Workshop on **“Energy Crisis- Remedial Measures”** in S.A Engineering College, Chennai, during 3<sup>rd</sup> & 4<sup>th</sup> January 2008.
30. Workshop on **“Research Methodology”** in IET,UK Young Professional Section at Hotel Chennai Deluxe, Chennai during 19<sup>th</sup> July 2008.
31. Workshop on **“Artificial Neural Network”** in Sir MuthuKumaran Institute of Technology, Chennai during year 5<sup>th</sup> & 6<sup>th</sup> March 2004.

32. Workshop on “**Embedded System Technology**” in Sir MuthuKumaran Institute of Technology, Chennai during 24<sup>th</sup> & 25<sup>th</sup> January 2003.
33. National Level Technical Symposium **Electrora 2007, Electrora 2008** in S.A Engineering College, Chennai.
34. National Level Technical Symposium **Synchro 2003, Synchro 2004, Synchro 2005** in Sri Muthukumaran Institute of Technology, Chennai.

### Research Guidance:

Sl.No	Name of the University	Reconization No.	No. of Scholar Registered
1	Anna University	<b>2330072</b>	07
2	Sathyabama University	<b>31057</b>	03

### Academic Projects

1. Saveetha Luna Excavator for NASA Lunabotics competition- 2011
2. Green Charger
3. Tele Charger
4. Rapid Heater for Dental Applications
5. 1 KW Wind Power Plant
6. Concentrated Solar Power
7. Smart Helmet

### Special Lectures Delivered

1. Advisory Committee for International conference on **Energy efficient technology for sustainability**, St. Xavier’s Catholic college, 2015
2. Technical Board Members: IET Chennai Networks 4<sup>th</sup> International Conference
3. **Sustainable Energy and Intelligent System**, 2015

4. Advisory Committee for National conference **emerging technologies in computing , control and communications** ,2015
5. Technical Committee for national conference “**Recent Trends In Power Electronics & Power Systems**” at RMK Engineering College,2015
6. Co-Chair 1 for IET Chennai Networks 4<sup>th</sup> International Conference **Sustainable Energy and Intelligent System Conference,2015**
7. Delivered Guest Lecturer in Magna Engineering College, Chennai on “**Power Flow Control**’2014
8. Delivered Guest Lecturer in Sun Engineering College, Nagercoil on “**Automotive Electronics**’2014
9. Guest Speaker for One workshop on “How to plan, write, publish papers in refereed Journals” in RMK Engineering College,2014
10. “**Trouble shooting of Consumer Appliances**” in Saveetha University, Chennai during November 2011
11. “**Electrical Optimization Techniques**” in Dr. MGR University, Chennai during March 2011.
12. “**Introduction to Power System**” in Magna college of Engineering, Thiruvallur during February 2010.
13. “**Introduction to FACTS Devices**” in DMI Engineering College, Chennai during November 2009.

### **Additional Responsibilities**

- **President** Lions Club- Chennai Coastal
- **Executive committee Member** in IE(I) Thiruvallur Local Network
- **Board Advisor**, Staff Selection Commission, Government of India
- **Honorary Secretary** in IET,UK Young Professional Section, Chennai
- **Project coordinator** for B.E innovative projects

- **External Faculty** for M.E part time, Anna University/MGR University
- **Chairman/ Chief examiner** for Anna University Examinations
- **Flying squad** for Anna University Examinations
- **Coordinator** for NBA Accreditation

## Subjects Handled

- Power System Dynamics
- Power System Control and Operation
- Flexible AC Transmission Systems
- Power System Analysis
- Solid State Devices
- Power Electronics
- Transmission and Distribution
- Electrical machines 1 & 11
- Power System Protection & Switch Gear
- Electronic Devices

## Professional Society

Indian Society for Technical Education : LM42556

Institution of Engineering and Technology -UK: 1100130040

Institutions of Engineers(India) : M-158771-9

## Personal Data

Date of birth	:	25-05-1976
Age	:	42
Marital status	:	Married
Nationality	:	Indian
Languages Known	:	Tamil, English and Malayalam