Dr.N.Karpagam, M.E, Ph.D
Professor / EEE
Velammal College of Engineering and Technology, Madurai
e-Mail Id: n.karpagam@vcet.ac.in
Blog Address: EEE1227

Educational Qualification:

S.No	Degree	Year	Subject	Institution	% of marks
1	Ph.D	2010	Electrical Engineering	Anna University, Chennai, Tamilnadu.	--
2	M.E	2001	Power System Engineering	Thiagarajar College of Engineering, Madurai. Tamilnadu.	75.75
3	B.E	1994	Electrical and Electronics Engineering	Thiagarajar College of Engineering, Madurai. Tamilnadu.	68.24

Experience in Years: 23 years

Employment History: (will be either in Table (or) Paragraph starting with current employer)

S. No.	Position held	Name of the Institution	From	To	Nature of Job
1	Professor	Velammal College of Engineering and Technology, Madurai.	04.06.2012	Till date	Teaching and Research
2	Associate Professor	Kalasalingam University, Krishnan koil.	19.10.2010	31.05.2012	Teaching and Research
3	Assistant Professor	Arulmigu Kalasalingam College of Engineering, Krishnankoil.	23.09.1997	18.10.2010	Teaching and Research

Interested Research Areas:

Power System, Power Electronics, Power Quality, Metaheuristic techniques for power system and power quality improvement.

Scholarships and Awards received:

S.No	Name of Award	Awarding Agency	Year
1	Best paper Award – National Conference	Kalasalingam University	2009

2	Reviewer for Journal	IET, ETEP, Elsevier	2010 – Till date
3	Expert member for Ph.D Viva voce	Anna University, Chennai	From 2016
4	Expert member for Promotion of JRF to SRF – EEE board	Thiagarajar College of Engineering	2016
5	Supervisor – 2 students	Anna University , Chennai.	2016

Funded Research Projects: (will be either in Table (or) Paragraph starting with latest funded research project)

(1) Funding Agency: DST - SERB

Scheme: EMEQ

Title: Design and development of prototype hardware for efficient and automated solar powered irrigation system with pest control and weather forecasting using IoT

Sanctioned Amount: 20.16 Lakhs

Year: 2018-21

Principal Investigator(PI):

(2) Funding Agency: AICTE

Scheme: Research Promotion Scheme (RPS)

Title: Custom Power Devices for Power Quality Management

Sanctioned Amount: 8.75 Lakhs

Year: 2013-16

Principal Investigator (PI):

Patent rights received: 2

Publications Details:

1. **Patent Journal Publication Details:**

   (i) Automatic water sprinkling system for plants with soil moisture sensing camera – **Patent Design No. 337196 – 001** dated 05.01.2021

   (ii) Automatic Solar Fertlizer Sprinkler – **Patent Design No: 337059 – 001** dated 31.12.2020

2. **International Journal Publication Details:**

.

[1]. N.Karpagam, B.Haridharshini, P.Priyadharsini, T.Vaishnavi, "Automatic Speed Breaker using IoT", International Research Journal of Engineering and Technology, Volume: 07 Issue: 04, Apr 2020.

[2]. N.Karpagam, P.Aukalya Performance evaluation 0f MPPT based solar pumping system with climatic conditions, cost and economics, **International Journal of**

Engineering Science Invention Research & Development (IJESIRD) , Vol III, Issue XI, May 2017, pp 744- 750. I.F BY (I2OR) - 2.215 IMPACT FACTOR (ISI) - 1.896.

[3]. N.Karpagam, M.C.Deetchitha, R.S.Amrutha varshini, N.Sreenithi, "Home security For Physically Challenged Using ServomotorT", International Research Journal of Engineering and Technology, Volume: 07 Issue: 05, April 2020.

[4]. N.Karpagam, P.Aukalya, "Improvement of Power Quality with DVR Controller Using Wind Energy Conversion System in a distributed system" Discovery Journal of engineering, ISSN 2320 – 6675 EISSN 2320 –6853© 2016 Discovery Publication 4(11), 118-126).

[5]. N.Karpagam, S.Dhanalakshmi, M.Ramyadevi "Application of UPQC with Renewable Energy Resources for Power Quality Improvement In Distributed Generation", Discovery journal of engineering, ISSN 2320 – 6675 EISSN 2320 – 6853© 2016 Discovery Publication 4(11), 135-143).

[6]. N.Karpagam,T.S.Gangadevi "Cost Analysis of Energy Efficient Solar Water Pumping System", Discovery Journal of engineering, ISSN 2320 – 6675, EISSN 2320 –6853© 2016 Discovery Publication 2016, 4(11), 127-134.

[7]. Karpagam N S.Dhanalakshmi and B.Juhi Jahan, "Implementation of Fuzzy Logic Controller based dynamic Voltage Restorer (DVR) with DFIG in Distribution system for Power Quality Improvement" , VFSTR Journal of STEM, Vol.01, No.01(2015) pp 36 – 48.

[8]. Karpagam N, "Application of Fuzzy Controller in Phase Shift Controlled D-STATCOM for Voltage Sag Mitigation", International Journal of Applied Engineering Research, Volume 10, Number 3 (2015) pp. 7517-7535.

[9]. Karpagam N, S.Dhanalakshmi and B.JuhiJahan, "Implementation of DSP Processor Based DVR controller for Power Quality Improvement", International Journal of Applied Engineering Research (IJAER), Vol. 10 No.20 (2015), pp (17796-17801).

[10]. Karpagam N., Dhivya Barathi R, " Development of fuzzy logic controller for D-STATCOM for voltage sag Mitigation" International Journal of Applied Engineering Research (IJAER), Vol. 10 No.20 (2015), pp:(17819-17825).

[11]. Karpagam N., E.Monica Magdalene, "Performance Analysis and Design Considerations of Solar Panel Parameters for High Power production , International Journal of Applied Engineering Research (IJAER), Vol. 10 No.20 (2015), pp17807-17814.

[12]. Karpagam N., Devaraj D. and Subbaraj P. (2010), 'Improved Fuzzy Logic Controller for SVC in power system damping using global signals', **Journal of Electrical Engineering, Springer Publications, Vol. 91, No. 7, pp. 395-404.**

[13]. Karpagam N. and Devaraj D. (2009), 'Fuzzylogic control of Static VAR Compensator for Power System damping', International Journal of Electric Power and Energy systems, Vol. 2, pp. 105-111.

[14]. Karpagam N. and Devaraj D. (2008), 'DFL controller design for SVC to improve power system transient stability', International Journal of Applied Engineering Research, IJAER, Vol. 3, No. 7, pp. 903-913.

3. International Conference Presentation Details:

[1]. Karpagam N, S.Dhanalakshmi and Juhi Jahan , "Implementation of Fuzzy Logic Controller based Dynamic Voltage Restorer (DVR) with DFIG in Distribution system for Power Quality Improvement", IEEE International Conference on Advances in Engineering and Technology-(ICAET 2014).

[2]. N.Karpagam, T.S.Gangadevi "COST ANALYSIS OF ENERGY EFFICIENT

SOLARWATER PUMPING SYSTEM" Attended International Conference of Electrical Electronics, Instrumentation and Computer Communication (E2IC2) 2015 at Karpagam college of Engineering and Technology ,Coimbatore.

[3]. Dr.N.Karpagam, P.Aukalya "IMPROVEMENT OF POWER QUALITY WITH DVR CONTROLLER USING WIND ENERGY CONVERSION SYSTEM IN A DISTRIBUTED SYSTEM" , *International Conference of Electrical, Electronics, Instrumentation and Computer Communication (E2IC2) 2015* in Karpagam college of Engineering, Coimbatore.

[4]. N.Karpagam, S.Dhanalakshmi and Juhi Jahan , "IMPLEMENTATION OF FUZZY LOGIC CONTROLLER BASED DYNAMIC VOLTAGE RESTORER (DVR) WITH DFIG IN DISTRIBUTION SYSTEM FOR POWER QUALITY IMPROVEMENT", *IEEE International Conference on Advances in Engineering and Technology*-(ICAET 2014).

[5]. N. Karpagam, Dhivya Barathi R, " DEVELOPMENT OF FUZZY LOGIC CONTROLLER FOR D-STATCOM FOR VOLTAGE SAG MITIGATION" *International Journal of Applied Engineering Research (IJAER)*, Vol. 10 No.20 (2015),pp:(17819-17825).

[6]. N.Karpagam, M.D.Kokila, PG Student, "VOLTAGE SAG MITIGATION IN DISTRIBUTION SYSTEM USING D-STATCOM WITH FUZZY LOGIC CONTROLLER", IEEE - *International Conference on Advances in Engineering and Technology*-(ICAET 2014), EGS Pillay Engineering College, Nagapattinam, pp 192 -198.

[7]. N. Karpagam, S. Dhanalakshmi, Rajeswari R , "ANALYSIS OF DQ0 BASED FUZZYLOGIC CONTROLLER IN DVR FOR VOLTAGE SAG AND HARMONIC MITIGATION" *International Conference on Green Computing, Communication and Electrical engineering*, 6-8,March 2014, pp 359-364.

[8]. **Karpagam N.** and Devaraj D. (2009), 'Application of Genetic Algorithm for SVC controller for Power System Stability Improvement', International Conference on Computing Technologies, ICIET '09, Kamaraj College of Engineering, Virudhunagar, pp. 521-528.

[9]. **Karpagam N.** and Devaraj D. (2009), 'Fuzzy Logic Control scheme for Static VAR Compensator to enhance Power System Transient Stability', International Conference on Electrical Energy systems and Power Electronics in Emerging Economies organized by SRM university, Chennai, 16-17, pp. 939-944.

[10]. **N.Karpagam**, Shakila , D.Devaraj, "Optimization of UPFC controllable parameters for stability enhancement with real coded genetic algorithm, IEEE international conference on advances in Engineering, science and management(ICAESM-12), March 2012,pp-250-255.

[11]. **N.Karpagam** P.Venkatramanath," Online control of fuzzy logic based SVC for voltage stability enhancement", International Conference on Simulation Artificial intelligence & Soft Computing, Bhuvaneshwar, Odissa,2011,pp 169-175.

[12]. **N.Karpagam** and D Devaraj," Design of dual input SVC controller with combined Genetic Algorithm and Sugeno fuzzy logic approach for power system stability improvement" International Conference on Simulation- SEMCCO 2011,organized by SRM university, Chennai , 19 – 21, December 2011.

[13]. **N.Karpagam** and D Devaraj," Fuzzy Logic Control scheme for Static VAR Compensator to enhance Power System Transient Stability " International Conference on Electrical Energy systems & Power Electronics in Emerging Economies organized by SRM university, Chennai , 16 – 17,April 2009.

[14]. **Karpagam N.** and Devaraj D. (2008), 'DFL controller design for SVC to improve power system transient stability', International conference on Power System Analysis, Control and Optimization, Andhra University, Visakhapatnam, pp. 264-270.

[15]. **Karpagam N.** and Devaraj D. (2007), 'Improvement of Power System Transient Stability using Thyristor Controlled Switched Capacitor (TCSC) FACTS devices', International Conference on Modelling and Simulation, Coimbatore Institute of Technology. Coimbatore, August, pp. 891-896.

4. National Conference Presentation Details:

[1]. N.Karpagam,S.Dhanalakshmi, M.Ramyadevi,"IMPROVEMENT OF POWER QUALITY USING dqo BASED UPQC WITH SOLAR ENERGY IN DISTRIBUTED GENERATION", N*ational conference at Velammal College of Engineering And Technology ,Madurai, Jan 2016.*

[2]. Dr.N.Karpagam, P.Aukalya "HARMONIC REDUCTION IN DISTRIBUTED GENERATION WITH WIND ENERGY SYSTEM USING DVR CONTROLLER" ,*National conference on power system and Renewable energy resources (NCPRES'15)* in Velammal college of Engineering and Technology, Madurai.

[3]. **Karpagam N.** and Devaraj D. (2009), 'Application of Fuzzy logic Control Scheme in SVC Controller for Power System transient stability', National Conference on Power and Energy Systems, NPES – '09, Kalasalingam University,Krishnan koil – 626 190, pp. 65-72.

[4]. **Karpagam N.**, Devaraj D. and Ganesh Babu I. (2008), 'Transient stability assessment for multi Machine System based on artificial neural network', National Conference on Computing Networks, SITCON 2008, Sethu Institute of Technology, pp. 823-829.

[5]. **Karpagam N.**, Devaraj D. and Arun B. (2008), 'Transient stability using UPFC and simulation by MATLAB/SIMULINK,NCCA 2008', National conference on computing Advances, Sri Ramakrishna Institute of Technology, Coimbatore, pp. 913-918.

[6]. N.Karpagam, Dr. D.Devaraj, R.Devasenapandi," Power system transient stability improvement using FACTS devices" National conference on Emerging trends, ETES'06,Athiyaman College of Engineering, Hosur, May-2006

1. **Karpagam N.** and Devaraj D. (2009), 'Application of Fuzzy logic Control Scheme in SVC Controller for Power System transient stability', National Conference on Power and Energy Systems, NPES – '09, Kalasalingam University,Krishnan koil – 626 190, pp. 65-72.

2. **Karpagam N.**, Devaraj D. and Ganesh Babu I. (2008), 'Transient stability assessment for multi Machine System based on artificial neural network', National Conference on Computing Networks, SITCON 2008, Sethu Institute of Technology, pp. 823-829.

3. **Karpagam N.**, Devaraj D. and Arun B. (2008), 'Transient stability using UPFC and simulation by MATLAB/SIMULINK,NCCA 2008', National conference on computing Advances, Sri Ramakrishna Institute of Technology, Coimbatore, pp. 913-918.

4. N.Karpagam, Dr. D.Devaraj, R.Devasenapandi," Power system transient stability improvement using FACTS devices" National conference on Emerging trends, ETES'06,Athiyaman College of Engineering, Hosur, May-2006.
5. **Karpagam N.** and Devaraj D. (2006), 'Simulation of FACTS Devices using PSCAD/EMTDC', National Seminar on Power Electronics applications to Power Systems, FACTS-'06, A.K.C.E. March'06, pp. 104-110.

6. **Karpagam. N**, Dr. D.Devaraj, P. Rajmeenal," Power system voltage stability Enhancement using FACTS devices" National Seminar on Voltage Stability, SVC'06, A.K.C.E- May-2006.

7. **Karpagam. N**, Dr.D.Devaraj ,M.Ajitha Priyadharshini , " Fuzzylogic based Load frequency control in coordination with HVDC links ", National conference on Power Electronics & Electronics & Power Systems , St.Joseph 's College of Engineering, Chennai , Jan 2005.
8. **Karpagam N.** and Devaraj D. (2005), 'Optimal Settings of Thyristor Controlled Series Capacitor Model for Power Flow Networks', National Conference on Power Systems, NPEC2005, TCE, Madurai, pp. 128-134.

9. N.Karpagam, Dr.D.Devaraj, M.Mary Linda , " Fuzzylogic Based approach for Power System Stabilizer Design for SMIB and Multi machine Systems"National Conference on Power Systems, Noorul Islam College of Engineering,March'05.

[10]. N.Karpagam, Dr.D.Devaraj, K.Punitha ,K.G.Chinthu , "Power Quality Improvement by Fuzzy Controlled FACTS Devices" National Seminar on Power Quality VSAG 2005, Arulmigu Kalasalingam College of Engineering, March 2005.

[11]. N.Karpagam, Dr.D.Devaraj, W.Jeremy Williams, " Line voltage Regulation Using FACTS Devices – STATCOM " National Conference on Emerging Trends in Power Systems , Athiyaman College of Engineering, March 2004.

[12]. N.Karpagam, Dr.D.Devaraj, J.Leena Rose , " Harmonic Elimination in STATCOM" National Conference on Applications of Emerging Technologies" , Athiyaman college of Engineering , March 2004.

[13]. N.Karpagam, Dr.D.Devaraj, M.Mary Linda , " Fuzzylogic Based approach for Power System Stabilizer Design" National Conference on Emerging Techinques in Electrical Engineering" St.Joseph 's College of Engineering, Chennai , Jan 2005

5. Google Scholar report:

Citations	103	41
h-index	5	3
i10-index	2	2

Additional Information:

1. **Reviewer:** No. of Journal papers reviewed: 15
2. IEEE Student branch Counselor, Velammal College of Engineering & Technology, Madurai.
3. Completed NPTEL Online Certification - Outcome Based Pedagogic Principles for Effective Teaching (ELITE Group)
4. Paased in 2 Examination out of 4 - Energy Auditor Examination conducted by Bureau of Energy Efficiency.
5. **Guest lectures delivered:**
   - Awareness for NBA - Laboratory Preparedness – V.C.E.T, Madurai - 2016
   - Research Methodologies – How to prepare a journal paper – V.C.E.T, Madurai. 2016
   - International Conferences – KLN College of Engineering, Madurai. 2016
   - DRDO sponsored FDP – Distributed Generation – Srividhya College of Engineering, Virudhunagar.2013
   - Engineering Research in academic institutions, Kamaraj College of Engineering, Virudhunagar.
   - Protection issues in Distributed Generation, SIT college of Engineering, Madurai, October 2012.
   - Advanced techniques in Protection in Distributed Generation, Velammal College of Engineering, April, 2012.

6. External Examiner – Anna University – Ph.D – Viva voce Examination Candidates in the area of **Power Quality**
7. Guiding 2 Research scholars under Anna University.