

Archana N.

Assistant Professor (Senior Grade)

Department of Electrical & Electronics Engineering
PSG College of Technology, Coimbatore – 641 004

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EDUCATION

DOCTORATE

(Pursuing*) Power System Optimization
Anna University, Chennai

POSTGRADUATE

(May 2011) Power Electronics and Drives
PSG College of Technology, Coimbatore

UNDERGRADUATE

(May 2009) Electrical and Electronics Engineering
Coimbatore Institute of Technology, Coimbatore

EXPERIENCE

June 2017 to till date

Assistant Professor (Senior Grade), PSG College of Technology, Coimbatore

August 2016 to May 2017

Assistant Professor (Senior Grade), Department of IT, PSG College of Technology, Coimbatore

June 2011 to July 2016

Assistant Professor, Department of IT, PSG College of Technology, Coimbatore

COURSES HANDLED

UNDERGRADUATE

1. Microprocessors and Interfacing
2. Electronic Devices and Circuits
3. Basic Electrical and Electronics Engineering
4. Total Quality Management
5. Environmental Science and Engineering

POSTGRADUATE

1. Number theory and Quantitative Techniques
2. Power Quality Management
3. Optimization Techniques
4. Enterprise Resource Planning
5. Ethical Hacking and Network Defense

RESEARCH AREAS

- Soft Computing
- Power Quality
- Power System Optimization
- FACTS devices

SPONSORED RESEARCH / CONSULTANCY ACTIVITIES

- Automation of Patenting System for M/s MetaYage IP Strategic Consulting, STEP, PSG

PUBLICATIONS

INTERNATIONAL JOURNALS

- P. Surekha, **Archana N**, S. Sumathi, "Solving Unit Commitment Economic Load Dispatch problems using GA and PSO algorithms", International Journal of Computer Science and Information Engineering, vol. 3, pp. 7-21, June 2012.
- P. Surekha, **Archana N**, S. Sumathi, "An Integrated GA-ABC Optimization Technique to Solve Unit Commitment and Economic Load Dispatch Problem",

Asian Journal of Scientific Research, vol. 5, pp. 93-107, Aug 2012.

- P. Surekha, **Archana N**, S. Sumathi, "Unit Commitment and Economic Load Dispatch using Self Adaptive Differential Evolution", WSEAS Transactions on Power Systems, vol. 7, pp. 159-171, Oct 2012.
- **Archana N**, Vidhyapriya R, Ashok Kumar L, Arjun E, "A Survey on Power Quality improvement of Grid Connected Wind Energy Systems using FACTS", International Journal of Engineering and Management Research vol. 4, pp. 115-121, Oct. 2014.
- **Archana N**, "Unit Commitment and Economic Load Dispatch Using Hybrid Genetic - Particle Swarm Optimization Algorithm", International Journal of Applied Research, vol. 1, pp. 109-113, April 2015.
- **Archana N**, Vidhyapriya R, "Improving the power quality of six parallel operated onshore wind turbines using UPFC", Research Journal of Applied Science, Engineering and Technology, August 2015.
- **Archana N**, Vidhyapriya R, Ashok Kumar L, Berose Abdul Kadar A, "A Survey on Power Quality Improvement of Multi Machine Systems Using FACTS Devices", International Journal for Research in Applied Science & Engineering Technology, vol. 3, pp. 216-222, Oct 2015.
- Ashok kumar L. **Archana N**. and Vidhyapriya R, "Power Quality Improvement of Grid Connected Wind Energy Systems Using Statcom-Battery Energy Storage System", ARPN Journal of Engineering and Applied Sciences, vol. 10, no. 21, pp. 9872-9879, November 2015.
- **Archana N**, Iswariya M, "Vulnerability Assessment for Web Application", International Journal of Advanced Research in Computer Science and Software Engineering, vol. 5, no. 12, pp. 244-250, December 2015.
- **Archana N**, Vidhyapriya R, Ashok Kumar L, Berose Abdul Kadar A, "Power Quality Improvement in A Multi Machine System using a STATCOM", International Journal of Research in Advent Technology, vol. 4, no. 1, pp. 16-22, January 2016.
- **Archana N**, Vidhyapriya R, "A Bibliographic Survey On Power System Optimisation Using Soft Computing Techniques", International Journal of Advanced Engineering Technology, Vol. 7, No. 1, pp. 327-333, March 2016.

- **Archana N**, Vidhyapriya R, "Improving Voltage Stability of Power System by

Optimal Location of Facts Devices Using Bio-Inspired Algorithms", Circuits and Systems, Vol. 7, No. 6, May 2016.

- **Archana N**, Iswariya M, "User-Friendly Dashboard for Automated Testing", International Journal for Scientific Research and Development, Vol. 4, No. 3, June 2016.
- **Archana N**, Vidhyapriya R, "A Novel SRF Based UPFC in Grid Connected Wind and Solar Hybrid System", Journal of Scientific and Industrial Research, Vol. 75, pp. 720-724, December 2016.
- **Archana N**, Vidhyapriya R, "Deterministic Oscillatory Search - A New Meta-Heuristic Optimization Algorithm", SADHANA, Online First, April 2017.

INTERNATIONAL CONFERENCE

- Enhanced particle swarm optimization for load frequency control in two area interconnected power system - International Conference on Computer Applications and Information Technology, Hindustan, Sept. 2010.
- Hybrid Evolutionary Algorithm for Voltage and Frequency control in Power Generating System - International conference on embedded systems, CIT, 2010.
- Location Of Multi-Type Facts Devices Under Contingency: An Intelligent Approach Using Modified ABC - International Conference on Advances in Electrical, Electronic and Systems Engineering, Malaysia, November 2016.

NATIONAL CONFERENCE

- Hybrid PSO - BF algorithms for Voltage and Frequency control in Power Generating System PG conference, PSG College of Technology, 2010.
- Unit commitment and economic load dispatch using hybrid genetic - particle swarm optimization algorithm - PG conference, PSG College of Technology, 2011.
- Test Automation for Enterprise Service Management Tool - Research Challenges in Information Technology, PSG College of technology, April 2016.
- Exploiting Vulnerabilities in Wireless Networks - Research Challenges in Information Technology, PSG College of technology, April 2017.

SEMINARS / CONFERENCES ORGANIZED

S. No.	Nature	Title	Date
1	Workshop	Matlab for Computer Vision in Biometrics	09-06-2012 to 10-06-2012
2	Staff Development Programme	TEQIP II sponsored SDP on Exploring the Features of PC for Efficient Output	08-11-2013 to 09-11-2013
3	Industry Institute Interaction	TEQIP II sponsored Industry Institute Interaction for II and III year students	20-12-2013 to 21-12-2013
4	Industry Institute Interaction	TEQIP II sponsored pre-BoS Industry Institute Interaction	22-03-2014
5	Faculty Development Programme	TEQIP II sponsored one week FDP on Soft Computing Techniques for Engineering Research	18-07-2016 to 24-07-2016

SEMINARS / CONFERENCES ATTENDED

S. No.	Nature	Title	Conducted by	Date
1.	Faculty Development Programme	Teaching and Learning	PSG College of Technology	11-06-2011
2.	Training	ISO Awareness	Zandig TQM Solutions	10-09-2011
3.	Workshop	Solar PV and Wind	PSG College of Technology	15-12-2011
4.	Workshop	Current Trends in Automation Testing	PSG College of Technology	23-12-2011 to 24-12-2011
5.	Workshop	Writing Effective Conference Paper	IIT-B / MHRD	18-02-2012 to 19-02-2012
6.	Workshop	Mathematics for Mechanical and Electrical Sciences	PSG College of Technology	02-03-2012 to 03-03-2012
7.	Workshop	iOS development	Media Lab, PSG College of Technology	16-04-2012 to 20-04-2012
8.	Workshop	Renesas RL 78	Frontline Electronics, Salem	30-08-2012

9.	Workshop	EMC Academic Forum	EMC ² , Bangalore	08-02-2013
10.	Workshop	NI Technology Day	PSG College of Technology and National Instruments, Bangalore	17-04-2013
11.	Faculty Development Programme	Computational intelligence - An Academic, Industrial and Social Perspective	PSG College of Technology	30-05-2013 to 12-06-2013
12.	Faculty Development Programme	Art of Teaching	National Institute of Technology, Trichy	18-11-2013 to 22-11-2013
13.	Summer Winter School Scheme	Innovations on Automotive Electronics and Infotronics for Safety and Comfort	PSG College of Technology	01-12-2013 to 14-12-2013
14.	Seminar	AICTE sponsored seminar on futuristic automotive concept design and styling	PSG College of Technology	10-01-2014 to 11-01-2014
15.	Faculty Development Programme	Data Mining and Data Analytics	National Institute of Technology, Trichy	10-03-2014 to 14-03-2014
16.	Faculty Development Programme	AICTE sponsored FDP on recent trends in automobile systems, testing and components	PSG College of Technology	03-05-2015 to 16-05-2015
17.	Faculty Development Programme	Environmental Studies	IITB / MHRD	02-06-2015 to 12-06-2015
18.	Workshop	Two day workshop on Automotive Electric Devices Modeling with MATLAB	PSG College of Technology	27-11-2015 to 28-11-2015
19.	Workshop	One day workshop on Automotive Embedded Systems and Communication Protocols	PSG College of Technology	13-02-2016
20.	Workshop	Three Days Workshop on Internet of Things	PSG College of Technology	05-01-2017 to 07-01-2017

SPECIAL LECTURES DELIVERED

- Basic electronics - BSNL-JTO Telecom examination, Department of Information Technology, PSG College of technology
- Approach to programming an optimization problem – FDP on Soft Computing Techniques For Engineering Research, Department of Information Technology, PSG College of technology

MEMBERSHIP DETAILS

PROFESSIONAL BODIES

- Life member – International Association of Engineers (Member No: 117687)

REVIEWER IN JOURNALS

- Journal of Electrical Engineering & Technology
- Circuits and Systems
- International Journal of Fuzzy Systems (Springer)

PROJECT GUIDANCE /SUPERVISION

- UG Projects: 20
- PG Projects: 3