

# Curriculum Vitae

**Mr. SUMAN M**

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## Career Objective:

To associate myself and put forth all my efforts to learn and work with determination and dedication in the area related to Microgrid, Smart Grid and Smart Distribution Systems and to prove my mettle by taking up challenges.

## Educational Qualification:

**Ph.D.:** National Institute of Technology, Tiruchirappalli, 2018. CGPA: 8.5/10. (Thesis Submitted)

- **Title:** - Investigations on unintentional islanding detection techniques for inverter based DGs
- **Description:** Microgrid protection is gaining interest owing to the incessant increase in renewable energy resources integration at the distribution system. One key area of microgrid protection is detection of unintentional islanding. Islanding detection techniques are proposed to detect unintentional islanding formation without destabilizing the system for single and multiple distributed generators, with reduced/NIL power quality degradation, applicable to various quality factors stated in the different international standards, applicable to real time demand variation and capable of discriminating the islanding from the non-islanding conditions.

**M.Tech. (Power Systems):** M. N. National Institute of Technology, Allahabad, 2014. CGPA: 8.99/10

**B.E. (Electrical and Electronics Engineering):** Anna University, Chennai. 2012. CGPA: 8.24/10

## Areas of Interest:

- Islanding operations in microgrid
- Renewable energy integration to the grid
- Power System Protection
- Smart Grid and Smart Distribution Systems

## Journals Publications:

- **Suman M** and Venkatakirthiga M., " Hybrid Analysing Technique Based Active Islanding Detection for Multiple DGs," in **IEEE Transactions on Industrial Informatics**, (Accepted for publication)
- **Suman M**, Venkatakirthiga M and Arul Daniel S., "Hybrid Analyzing Technique for Active Islanding Detection Based on d-Axis Current Injection," in **IEEE Systems Journal**, vol. 12 (4), pp. 3608-3617.
- **Suman M** and Venkatakirthiga M., " Q-axis Current Perturbation based Active Islanding Detection for Converter Interfaced Distributed Generators," in **Turkish Journal of Electrical Engineering &**

Computer Sciences," in **Turkish Journal of Electrical Engineering & Computer Sciences**, vol. 26 (5), 2018, pp. 2633-2647.

- **Suman M.** and Venkatakirthiga M., “Band Pass Filter and AFVmean Based Unintentional Islanding Detection” in **IET Generation Transmission and Distribution** (Revision Submitted).

#### Conferences / Symposium Attended

- Suman M and Venkata Kirthiga M., “Band Pass Filter based Active Island Detection Technique for PMSG based WECS”, *IEEE PEDES 2018*, organized at the IIT Madras, between 18th – 21th December 2018. (Accepted for Presentation)
- Kanimozhi K., **Suman M**, Srividhya S and Venkata Kirthiga M., “Stability Constrained Optimal Allocation of DGs in Autonomous Micro-grids”, *IEEE International Conference INDICON 2017*, organized at the IIT Roorkee, between 15th – 17th December, 2017.
- Mohan Sundar S, Srividhya S, **Suman M** and Venkata Kirthiga M., “Optimal Placement and Sizing of Distributed generators to ensure Protection Coordination”, *IEEE International Conference INDICON 2017*, organized at the IIT Roorkee, between 15th – 17th December, 2017.
- Tamil Mani P., **Suman M** and Venkata Kirthiga M., “Coordinated Controller for Demand Side Management”, *33rd National Convention of Electrical Engineers, 2017*, November 24-25, 2017 at the National Institute of Technology, Tiruchirappalli.
- Prasannajit Khatua, **Suman M** and Venkata Kirthiga M., “Estimation And Analysis Of Harmonics And Power Factor Correction In A Modern Steel Manufacturing Facility”, *33rd National Convention of Electrical Engineers, 2017*, November 24-25, 2017 at the National Institute of Technology, Tiruchirappalli.
- **Suman M** and Asheesh K Singh “B2B converter based Power Sharing between Utility Grid and AC Microgrid,” *IEEE International Conference on Green Computing, Communication and Electrical Engineerin (ICGCCEE'14)*, March 6-8, 2014.
- **Suman M** and Ashish B, “ATM for Visually Impaired”, *Synchro '11-symposium* held at Sri Muthukumaran Institute of Technology, Chennai-69.

#### Achievements:

Presented a Paper, titled **ATM FOR VISUALLY IMPAIRED** in a symposium held at “Sri Muthukumaran College of Engineering”, Chennai and **Won First Prize**.

#### Scholarships

Name of the Scholarship	Providing Organization	Duration	
		From	To
GATE Scholarship	Government of India at MNNIT Allahabad	August 2012	June 2014
Institute Scholarship	Government of India at NIT Tiruchirappalli	August 2014	October 2018

## Volunteer Role

### Reviewer for

- 1) **IEEE** – Systems Journal
- 2) **IET** – Generation, Transmission and Distribution
- 3) **Elsevier** – Energy Conversion and Management
- 4) **Springer** – Institution of Engineers India (Series B)

## Projects:

### M. Tech.:– Power System Engineering

**Duration – 1<sup>st</sup> Oct 2013 to 30<sup>th</sup> April 2014**

- **Title:-** B2B Converter Based Power Sharing, Coordination Control of utility grid and hybrid microgrid
- **Organization** – Motilal Nehru National Institute of Technology, Allahabad.
- **Description:** Co-ordination control of Distributed Energy Resources (DER's) in hybrid microgrid for proper power sharing and maintains the stability of the system in continuous load changing situations is the major concern of the thesis using Linear Quadratic Regulator.

### B.E.:– Electrical and Electronics Engineering 2012

**Duration – 1<sup>st</sup> Dec 2011 to 13<sup>th</sup> Jan**

- **Title:-** Transformation Of Vibration Energy Into Electrical Energy
- **Organization:** Bharat Heavy Electricals Limited, Trichy-14.
- **Description:** Conversion of vibration energy into electrical energy by using Micro Electro Mechanical System (MEMS). Power generated by MEMS is stored in 12V battery through a Boost Converter which boosts up the voltage. Load is connected to the battery.

## Summer Internship:

- **Organization-** NIT, Trichy

**Duration- 3<sup>rd</sup> Jun 2013 to 08<sup>th</sup> July 2013**

- **Project Title-** “Study On Smart Grid”
- **Brief Description-** Smart Grid is an Intelligent Electrical Grid that collects details regarding the behavior of various electrical appliances, and performs immediate actions in a self-activated mode whenever necessary to enhance reliability, efficiency, economy and sustainability of Generation, Transmission and Distribution of Electricity, which is made possible by Information and Communication Technology

**Industrial Training:**

Organization	Place	Description	Duration	
			From	To
<b>Chennai Port Trust</b>	Chennai, Tamil Nadu	Electrical Power Distribution within an industry	27.05.2011	01.06.2011
<b>NCTPS - North Chennai Thermal Power Station</b>	Chennai, Tamil Nadu	Electrical Power Generation from coal bunkers to switch yard	06.06.2011	10.06.2011
<b>TANGEDCO – Tamilnadu Generation and Distribution Corporation</b>	Avadi, Chennai, Tamil Nadu	National Franchisee Training Program on Power Generation and Distribution	21.06.2011	23.06.2011

**Workshop Attended:**

Title	Organization	Duration	
		From	To
Recent trends in Protection of Microgrids with high DER penetration: Issues, Challenges and Mitigation	Delhi Technological University, Delhi	12 <sup>th</sup> Feb 2018	16 <sup>th</sup> Feb 2018
Smart Microgrids	IIT Kanpur	8 <sup>th</sup> Apr 2016	10 <sup>th</sup> Apr 2016
Recent Challenges and Road Map in Smart Energy Systems	VIT, Vellore	23 <sup>rd</sup> Jan 2015	24 <sup>th</sup> Jan 2015
Smart Grid Technology and Applications	PSG College of Technolgy, Coimbatore	10 <sup>th</sup> Oct 2014	11 <sup>th</sup> Oct 2014
Short Term Course on Solar and Wind Power Conversion	Motilal Nehru National Institute of Technology, Allahabad Uttar Pradesh	12 <sup>th</sup> July 2013	16 <sup>th</sup> July 2013
International Workshop on Power System	Vel Tech Technical University, Chennai, Tamilnadu	27 <sup>th</sup> May 2011	01 <sup>st</sup> June 2011

## Memberships

Organization/Society	Type of Membership	Duration	
		From	To
Institute of Electrical and Electronics Engineering (IEEE)	Student Member	April 2014	Till date
IEEE – Power and Energy Society	Student Member	April 2014	Till date
IEEE – Industrial Electronics Society	Student Member	May 2018	Till date
IEEE – Industry Applications Society	Student Member	April 2018	Till date

## Co-Curricular Activities:

- **Joint Secretary** for Electrical and Electronics Engineering Department Symposium held at Vel Tech, Chennai.
- **Executive member** for the PhD scholars of the EEE Association (2015-2017) at NIT Tiruchirappalli.
- **Alumni Manager** for the PhD scholars of all the circuit departments (2017-2018) at NIT Tiruchirappalli.

## Extra-Curricular Activities:

- **NCC cadet** (Air Wing, passed 'B' & 'C' certificates with 'A' & 'B' grades respectively and participated in various camps).
- Participated in **Intra College and Inter School Level Cricket Tournaments** and have **won the tournaments**.
- Participated in **Zonal Level Volley Ball Tournament** and have **won Runners- up**.

## Personal Profile:

Date of Birth : 30 January 1991  
Gender : Male  
Fathers Name : Mr. Murugesan M  
Linguistic Abilities : English, Tamil

## Declaration

I hereby declare that the above furnished particulars are true to the best of my knowledge.

**Place:** Trichy

**Date:** 04.12.2018



(SUMAN M)