



Bhargav Prasanna SWAMINATHAN

PhD Student · Teaching Assistant · University of Grenoble-Alpes

PERSONAL INFORMATION

Born in Chennai, India, 17 September 1990

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CAREER GOAL

To be at the forefront of research in the area of electrical distribution network optimization and integration of distributed generation.

WORK EXPERIENCE

*Grenoble Institute of
Technology, France*

Sep 2014 – Graduate Teaching Assistant

Assisting professors, supervising laboratory sessions, theoretical assignment work, and projects in *Electrical Distribution Networks* and *Smart Grids*, at the school of engineering for Energy, Water, and Environment (ENSE3). ENSE3 is one of the elite engineering schools of France, offering various 3-year engineering degrees, culminating at the Master's level. List of courses can be found further down in the CV.

*Grenoble Electrical
Engineering Laboratory
(G2ELab), France*

Feb-July 2014 Master's Thesis Intern

Optimal configuration of electrical distribution networks under technical and economical constraints set by integration of distributed generation.

June-July 2013 Research Intern

Technical and economical study of three different means to accommodate distributed generation in distribution networks.

*The French National Centre
for Scientific Research
(CNRS), Grenoble, France*

Oct-Nov 2012 Intern - Experimental Research

Experiments on quenching properties of superconducting fault current limiters, development of a protection device to prevent damage to the device in the event of quenching, and tests on the effect of stray electric and magnetic fields on their quenching properties.

*Larsen and Tuobro ECC
Ltd., Chennai, India*

June 2011 – May 2012 Graduate Engineering Trainee

Design of gas and air-insulated substations for voltages up to 765 kV. Contributed to the design one of the world's highest gas-insulated substations, in the himalayayas, at an altitude of 2400 m from sea level.

EDUCATION

*Doctor of Philosophy
(PhD)*

Sep 2014 – University of Grenoble-Alpes

Optimal Configuration of Distribution Networks under Technical Constraints based on Predictive Methods

Advisors: Associate Prof. Raphaël CAIRE & Associate Prof. Vincent DEBUSSCHERE

Description: This PhD is a continuation of my master's thesis, and aims to explore further and solve, the issues in the domain of management of distribution networks with a massive integration of distributed generation.

Associated with evolvdSO, a European project, the work to be done will also concentrate on improving the tool developed during the master's thesis.

*MSc. in Electrical
Engineering for Smart
Grids and Buildings*

2012 – 2014

Grenoble Institute of Technology, France

GPA: 16.3/20 · Très Bien/Very Good · School: ENSE3

An international master's degree offered by the school of engineering for Energy, Water, and Environment (ENSE3). Gained expertise on *deregulation*, aspects of *smart grids*, *energy conversion*, *energy markets*, *advanced control systems*, *supervision*, and *information and communication technologies* through coursework and practical projects.

*Bachelor's (B.E.) in
Electrical and Electronics
Engineering*

2007 – 2011

Anna University, Chennai, India

GPA: 82/100 · First Class with Distinction

Description: This degree focused on the fundamental concepts of electrical and electronics engineering, and included courses that covered *electric power systems*, *power electronics*, *signal electronics*, and *mathematical methods*.

TEACHING / ADVISORY ROLES

*Co-supervisor -
Transversal Projects*

2014 – 2015

Tests on Distribution Network Optimizer

This project aims to let students of the final year of their engineering degree test the day-ahead optimization tool developed during my master's thesis. Students will test the effect of various parameters on the results provided by the tool.

2014 – 2015

Serious Game Development

In this project, final year students have to create a web-based tool to illustrate in a pedagogical way, what challenges are facing smart electric distribution networks.

Internship Co-Advisor

June-July 2014

Tests on Distribution Network Optimizer

Co-advised a second year intern to test the tool developed during my master's thesis, and evaluate its robustness.

Intern: Ahmed AHAM, ENSE3, Grenoble INP

COMPUTER SKILLS

Basic

JAVA, PYTHON, LABVIEW

Advanced

MATLAB, ATP-EMTP, HTML, L^AT_EX, OpenOffice, Linux, Microsoft Windows

OTHER INFORMATION

Awards

2012 · Grenoble INP Scholarship for Outstanding International Students
2011 · Best Bachelor's Project Award (200/200 score)

Languages

TAMIL · Mother Tongue
ENGLISH · Native Fluency (TOEFL iBT 97th %ile)
FRENCH · Professional Working Fluency
HINDI · Native Fluency
GERMAN · Basic (Words and Phrases only)

Interests

Singing · Astronomy · Technology · Consumer Electronics · Energy Markets
Open Source Software · Cricket · Badminton