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## **EDUCATION:**

### SSN College of Engineering, Anna University

2009-2013

- Bachelor of Engineering in Electrical and Electronics
- First class, 7.4 CGPA

#### **EXPERIENCE:**

# **Graduate Engineer - Electrical**

Sept 2013 - Present

Petrofac Engineering Services, Chennai

- · Alrar Separation and boosting facilities, Algeria
- Modelling and Power system study using ETAP 12.5
- Cable sizing, UPS sizing, Preparation of specifications, single line diagrams, load list, purchase requisitions
- Vendor coordination's for various packages such as generator, switchgear and vendor offer and drawing review.

# Electrical Research Fraternity - www.erfssn.org

2010-2013

SSN College of engineering, Chennai

- Conducted workshop on CREATIVITY for school students during INSPIRE 2012. An initiative by the government of India to promote Science and Research.
- Organized a 1 day Workshop on PIC Microcontrollers. Topics ranging from its internal architecture to its uses were discussed.
- Organized a 1 day Workshop on Introduction to Robotics.
- Organized a 1 day hands-on workshop on PCB Fabrication in EUPRAXIA-the intercollege fest of our college in which more than 200 students participated from various colleges.

#### **PUBLICATIONS:**

# Technical Paper on "Performance study of DSTATCOM with PI controlled SVPWM and hysteresis current controller for power factor improvement"

- Paper was regarding the comparison between the applications of a PI controlled space vector PWM and a hysteresis current controller for STATCOM.
- The paper is published in the September 2012 edition of <u>ARPN Journal of Engineering and Applied Sciences.</u>

## **ACHIEVEMENTS:**

- Founder of Makerspace Chennai <a href="mailto:erfssn.org/makerspace/">erfssn.org/makerspace/</a>.
- 2nd place in HackIndia2015 among 80+ teams, a national level hackathon.
- Among the top 30 teams selected for ITECH 2015, a national level hackathon.
- Conducted LOGIC-BOTS a hands on workshop on analog robotics that entered into the LIMCA BOOK OF RECORDS 2012 for making 100 line tracing robots tracing a line simultaneously.
- Secured 3rd place out of 42 teams in Robotics event "Cold Fusion" during SHAASTRA 2011, the annual international tech fest of IIT-Madras.

#### **PROJECTS:**

- Study of DSTATCOM for power factor improvement Final year project thesis
  - Study of the various control algorithms used for the Static Compensator.
  - Comparison of the various algorithms for the controllers and suggesting the best algorithm to be implemented for the reactive power compensation using STATCOM.
  - Unbalanced and non-linear loads study on STATCOM.
- CardBot Winning idea for HackIndia2015
  - A 4 wheeled robot fitted with webcam that moves in accordance with the movement of the virtual reality headset (google cardboard) providing the user ability to virtually visualize any inaccessible area.
- Simultaneous Localization and Mapping using an Omni wheeled robot and Ultrasonic sensor – under progress
- Automated vehicle speed management assisted with GPS implemented on Honda Activa
- LaunchBOT
  - Created 15 robots based on TI Launchpad to introduce 11<sup>th</sup> and 12<sup>th</sup> grade school students into robotics during INSPIRE 2013, funded by the government of India to promote Science and Research.
- Ultra-Vision
  - A device that aids the visually impaired to cope up with the physical environment and traverse easily without any guidance, both indoors and outdoors.
- Chiposcope
  - An oscilloscope developed on Chipkit UNO 32 board and OLED display.

## **SKILLS:**

#### Microcontroller programming

- Controllers : PIC, ATMEGA, DSP

- Boards: Arduino, Chipkit, Launchpad, Intel Galileo, Linkit one

- Software: MPLAB, AVR Studio, Arduino IDE, MPIDE, Energia

#### PCB Fabrication

- Fabrication of PCB's using EAGLE software
- My Instructable with around 30k views: <a href="https://www.instructables.com/id/Etching-Method-and-Sticker-Method-of-PCB-fabrication">www.instructables.com/id/Etching-Method-and-Sticker-Method-of-PCB-fabrication</a>

# 3D Modelling

- Software Trimble Sketchup, Eagleup
- 3D modelling using sketchup to verify the hardware design and modelling the PCB using EagleUP to check any clashes before fabrication.
- My models <u>3dwarehouse.sketchup.com</u>