ABHINAV RAJAGOPALAN

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https://abhinavrajagopal.github.io

PROFILE

EE seeking opportunities in the technology field, aspiring to improve quality of life and biosphere through technology, alternative energy sources and sustainable development.

EDUCATION

SRI VENKATESWARA COLLEGE OF ENGINEERING

ANNA UNIVERSITY, CHENNAI – BACHELOR OF ENGINEERING IN EEE

08/2013 - 05/2017   6.4/ 10

❖ Courses

• Analog & Digital electronics : Logic, Design and operation

• Control Systems

• Embedded Systems : Operation & Case studies

• Signal Processing

• Power Electronics

• Power Systems

• Microprocessors : Programming & Architectures

AISSCE - CLASS XII

PS SENIOR SECONDARY SCHOOL, CHENNAI

06/2011 - 05/2013   84%

❖ Courses

Physics | Chemistry | Mathematics | Informatics Practices

AISSCE - CLASS X

PS SENIOR SECONDARY SCHOOL, CHENNAI

05/1999 - 05/2011   7.4 / 10

PROJECTS

❖ Automated horticulture using IoT (2017)

• Created an automated system for effortless horticulture using a sensor and actuator based mesh network with visual feedback by Internet of Things.

❖ Smart horticulture IoT (2016)

- Built a system to monitor and control a farm and detect moisture content and other such parameters implementing Internet of Things with an Android application.

❖ Wireless power transmission (2015)

- Created a prototype to increase the efficiency of power consumption and range of wireless power transmission using high frequency resonant air core transformer.

❖ Designed a portable & efficient Inverter (2014)

- Modelled a simulation to create a more efficient and portable Inverter using Regenerative Snubbing at Texas Instruments Innovation Challenge : India Design Contest '15

❖ Chat/IM client (2012-02/13)

- Built a personalised instant messaging service between systems on the same network with Java and MySQL using JDBC .

❖ Power optimiser for MPPT solar PV system (12/2016 - 04/2017)

- Currently involved in the design of an efficient converter & MPPT system for optimised power generation of solar energy.

RESEARCH INTERESTS

❖ Machine learning/Deep Learning, computer vision, NLP, HMM, systems engineering, cryptography, Turing machines, combinatorics and analysis of algorithms.

❖ Domains in theoretical physics including general relativity and quantum gravity.

TECHNICAL SKILLS

❖ Technologies : TensorFlow, Hadoop, PyTorch, Caffe, MATLAB

❖ Imperative/general : C, C++, Python, Java, Scala, JavaScript, Lisp, Swift, Rust

❖ Functional : Haskell

❖ Platforms : Linux/UNIX platforms, Windows

❖ Miscellaneous : Django, L*A*T*E*X, OpenCV, x86-x64 assembly, Shell (Bash), HTML/CSS, SQL (Postgres, MongoDB), Simulink

ACHIEVEMENTS & CERTIFICATIONS

❖ Won first place for presenting a prototype model for "Automation for effortless horticulture using a sensor and actuator based mesh network" in SVCE Innovates - Student Research Day 2017.

❖ Presented a paper on "Efficient usage of artificial grow light from LEDs using selective PWM techniques for healthy growth of plants" at the National Conference on Advances in Electrical and Electronics Engineering (NCAEEE-2017) organised by the Department of Electrical and Electronics Engineering, SVCE held on 10 & 11th March 2017.

❖ Smart horticulture IoT (2016)

• Placed third at SVCE Innovates - Student Research Day -2016. Presented a working model for building a system to monitor and control a farm and detect moisture content and other such parameters implementing Internet of Things with an Android application.

❖ Wireless power transmission (2015)

• Demonstrated a prototype to increase the efficiency of power consumption and range of wireless power transmission using a high frequency resonant air core transformer at Research Day 2015, SVCE.

❖ Awarded several certifications for skills & excellency in free hand sketching, graphic designing & painting. (2000-2011)

❖ Certification of merit for class topper, P S Senior Secondary School, Chennai. (2001-03)

ORGANIZATIONS

ENVIRONMENTALIST FOUNDATION OF INDIA

2008-2013   Involved in various events and clean up drives

INTERESTS

Filmmaking | Books | AI | Music | Sustainability

Natural science | Philosophy | Tinkering

LANGUAGES

English | Tamil | Hindi | Sanskrit | Malayalam