

# Abhinay RamRaj Deevi Electrical Engineering (minor in CSE) Indian Institute of Technology Hyderabad

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UG Third Year Male

DOB: 10/12/1995

Examination	University /Board`	Institute	Year	CGPA /%
Graduation	IIT Hyderabad	IIT Hyderabad	2017 (Expected)	9.01*
Intermediate/+2	Board of Intermediate	BIIT Academy	2013	97.30
	Andhra Pradesh			
10 <sup>th</sup> class	SSC- Andhra Pradesh	Bhashyam High school	2011	94.67
ACADEMIC ACH	TEVEMENTS			

#### \_\_\_\_\_

- One among 5 students who got selected for minor programme in CS.
- Selected for two months summer programme with University of Texas 2014
- Awarded 2<sup>nd</sup> among all projects during I semester at IIT H
- Secured AIR 2393 rank in IIT JEE among 1,50,000 students appeared for the exam -2013
- Secured State 735 rank in EAMCET (Prestigious Engineering Entrance exam in Andhra Pradesh) 2013
- Ranked State 71st in AS Rao Science Talent Search Examination 2011
- Received Excellence Award for the best academic performance among all students in the year-2003,04,06,07 at Bhashyam High school

#### **PROJECTS**

# High Performance hardware implementation of Parallel Database search engine for real time Peptide mass fingerprinting current project

Guide: Dr. Amit Acharyya

- Protein identification for many laboratory tests involve Database search which is a slow process.
- This search speed can be increased if implemented on FPGA hardware by using the idea of parallel processing

# **Detecting the velocity of objects**

autumn 2014

- Velocity of the objects are found by implementing Doppler phenomena
- Implemented using ultrasonic sensor interfaced with microcontroller TM4c123 ARM cortex M4 launch pad.

Hopfield Networks spring 2014

Guide: Dr.K.Sri Rama Murty

- It is a mathematical model of biological neural networks that are capable of machine learning and pattern recognition
- Studied the concepts of Neural networks like artificial networks, synapses, weights, connection networks
- Implemented Hopfield model for pattern recognition of different alphabets in Matlab

# **Solar Powered Water pump**

autumn 2013

• As the name suggests solar energy is used to pull the water from ground

- Implemented using solar panel, current booster circuit, centrifugal pump, DC motor
- It is extremely useful for irrigation due to its reliable power supply

#### **ELECTRONICS AND COMPUTER SKILLS**

Hardware Languages: VHDL

Software Tools: Matlab, Xilinx-ISE/Vivado, LT spice, ModelSim, Keil

**Computer Languages:** C, python

Databases Familiarity: PostgreSQL

### AREAS OF INTEREST

Digital system design, Sensor design and applications, Embedded Programming, VLSI, wireless communication

#### RELEVANT COURSES UNDERTAKEN

**Core:** Digital system design, Computer organization, Embedded systems ,Boolean Algebra, , Semiconductor Fundaments, Device Physics, Signals and Communication, Biomedical IC Design\*, VLSI technology\*, Digital chip design\*.

LA: Bio engineering

#### **EXTRA-CURRICULAR ACTIVITIES**

- Actively participated in **Swachh Bharat Abhiyan**, **Blood Donation Camp** organised by **NSS** (National Service Scheme)
- Participated in Teaching Camps in rural government schools
- Participated in Quizzes conducted by Elektronica and Movie club during Nvision(Tech fest of IIT H)
- Participated in Inter School Cricket and Chess competitions
- Received an award in Essay writing competition conducted by Lalitha Kalanjali

#### **DECLARATION:**

I hereby declare that above information is true to the best of my knowledge and spirit.

Abhinay RamRaj