

# RAGHAV RASTOGI

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## OBJECTIVE:

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Seeking a position as an engineer which offers key participation, team oriented tasks and challenges that help in technical skill enhancement and also to become an asset to the organization by striving towards the attainment of its goals and hence valuably contribute to its success.

## ACADEMIC DETAILS:

QUALIFICATION	SCHOOL/ COLLEGE	BOARD/ UNIVERSITY	CGPA/ PERCENTAGE	YEAR OF PASSING
B.Tech (ECE)	Manav Rachna University, Faridabad	Manav Rachna University, Faridabad	9.05 (Till 6 <sup>th</sup> Semester.)	2019
AISSCE	DAV Public School, Gurgaon	CBSE	70.8%	2015
AISSE	DAV Public School, Gurgaon	CBSE	74.1%	2013

## SKILLS & INTERESTS:

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**Language:** SystemVerilog, Verilog, VHDL, MATLAB, C, C++, C# (Beginner), .Net (Beginner).  
**Software:** ModelSim, Quartus, Silvaco TCAD, Tanner EDA, Cadence OrCAD, LabView, Eagle CAD, Proteus Design Suit, Blender (3D).  
**Operating Systems:** Windows XP/7/8/10, LINUX.  
**Areas of Interest:** Digital System Design, Design and Verification, VLSI, Microprocessors, Data Communication, Networking, Digital Electronics.

## INTERNSHIP:

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**Company:** Microtek India Private Limited.  
**Duration:** 1 Month (15/June/2018 – 17/July/2018)

Verification, repair and testing of E-rickshaw chargers, PCB tracing on OrCAD and introduction to PIC series microprocessors was done during the period of one month.

## TRAINING:

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- Institute:** Croma Campus.  
**Course:** PCB and Circuit Design.  
**Duration:** 1 Week (15/June/2017 – 22/June/2017)  
**About:** A course on PCB designing and circuit designing using Proteus and Eagle CAD were covered.
- Institute:** Carnegie Mellon University (Robomatter)  
**Course:** Software Development Program  
**Duration:** 1 Week (13/June/2016 – 20/June/2016)  
**About:** A course on software development implemented through JAVA.

## PROJECTS:

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### 1. Comparative Study on 22nm Bulk MOSFET and Silicon On Insulator MOSFET

Duration: On-going (August 2016 - Present)

Technology: Silvaco TCAD and MATLAB

This is a Research project in which different types of Field Effect Transistors were designed such as Bulk MOSFET, PD-SOI FET and FD-SOI FET on 22nm node using Silvaco TCAD and there results were verified by computing its Mathematical Model using MATLAB.

### 2. Review: Shortcoming of Bulk MOSFET and Advantages of FinFET

Duration: Under Review at FLAME 2018 (March 2016 - Present)

Technology: Silvaco TCAD

This is a Literature Review project in which a bulk MOSFET is compared against various types of FET's such as Multi Gate FET's (Omega – FET, Pi – FET, Gate All Around FET, Cylindrical Gate All Around FET) and SOI based technologies. This project discusses the disadvantages/problems faced by reducing the size of Bulk MOSFET as compared to other new technologies.

### 3. 8 bit Microprocessor Design

Duration: On-going (February 2018 - Present)

Technology: Basic Intel 8085 architecture, Verilog/VHDL, TTL (74xx)

An 8 bit Microprocessor with custom assembly language and architecture. The microprocessor id first implemented on Verilog and VHDL using Behavioural Modelling and then thoroughly checked for logical errors using custom Test Bench. The Implementation of this microprocessor is done on a breadboard with TTL (74xx) series IC's.

### 4. Home Automation

Duration: 3 Months (June 2015 – August 2015)

Technology: Arduino and Android (MiT Appinventor).

Home automation system designed on Arduino using Bluetooth. The system contains a temperature sensor, relay modules and a LCD display. The system can automatically turn the heating and cooling device on or off depending on a pre-set temperature. A mobile device (Android) can also be used to switch on or off the light and fans. The LCD display is a small information panel which shows the current temperature and the status of all the connected devices.

### 5. Autonomous Robot

Duration: 1 Month (May 2016 – June 2016)

Technology: Arduino and Android (MiT Appinventor).

A total autonomous robot was designed using Arduino and ultrasonic sensors. The ultrasonic sensor in the bot sensed the obstacles in front of it and used to program its way accordingly. The distance between the obstacles and bot were printed on a 16x2 LCD display and the values were also displayed on Android phone using an app developed on MITappinventor and communicated over by using a Bluetooth module.

### 6. Digital Logic Gates

Duration: 1 Month (November 2016 – December 2016)

Technology: Bipolar Junction Transistors.

This project was created to implement digital logic gates using Transistors. The gate implemented were AND, OR and NOT gate.

### 7. FM Radio Transmitter

Duration: 6 Months (September 2014 – February 2014)

Technology: Bipolar Junction Transistors and Tank Circuits.

The FM Radio Transmitter is a portable audio transmitter which frequency modulates an audio signal with a base band signal. It transmitted signal over 92.1-95.8MHz it had a wide band of operation due to the LC oscillator which was not stable. The frequency band was tuneable as it had a variable capacitor.

## **CERTIFICATIONS:**

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1. Telecom Essential Course from Ericsson India on March 2018.
2. Collection Specialist from Aspiring Minds on February 2018.
3. Data Processing Specialist from Aspiring Minds on February 2018.
4. GIS and Remote Sensing from NPTEL, Faridabad on March 2017.
5. CISCO Networking from Azure Skynet on February 2017.
6. Sustainable Strategies from Purdue University on July 2016.

## **ACHIEVEMENTS:**

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1. Scholarship from Manav Rachna University.
2. Zonal Winner of BrainTech – 2017 on Networking and Cyber Security Championship organized by Azure Skynet.
3. 1<sup>st</sup> Runner up in Zenith – 2016, Hosted by Manav Rachna Educational Institution's CDC department.
4. 2<sup>nd</sup> Runner up in Rapid Idea Generation Competition – 2016, Hosted by Manav Rachna University.

## **TRAITS:**

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- Optimistic and Self-motivating.
- Quick Learner.
- Accepts responsibility.
- Ability to work with team under pressure.

## **PERSONAL INFORMATION**

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Father's name:	Sandeep Rastogi
Date of Birth:	7 <sup>th</sup> September 1997
Marital Status:	Single
Religion:	Hindu
Nationality:	Indian
Communication Language	English and Hindi

## **HOBBIES:**

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- Multiplayer computer gaming (Favourite Titles: CSGO, Battlefield 4/3, PUBG and Tom Clancy's Universe).
- Listening To Music (Favourite Genre: Dubstep, Metal, Alternate, Pop).
- Badminton.