

Harendra Pratap Singh

Current Location: Gurgaon

Specialization: B.Tech. (ECE)

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Objective:

To seek the challenging position in Electronics industry that needs innovation, creativity, dedication and enable me to continue to work in a challenging and fast paced environment, leveraging my current knowledge and fostering creativity with many learning opportunities in **Embedded System and Firmware Development**.

SYNOPSIS

A technology driven professional with **5yrs & 1 months (10 months of full time Internship extra)** of experience in Embedded Systems and Application Development.

- Adept in all phases of software & hardware development, product development and production life cycle.
- Hands on experience in:
 - System development and unit testing of embedded applications.
 - 8,16 and 32 bit microcontroller AVR,MSP-430,ARM
 - SBC's : Nvidia Jetson Tk1, Beaglebone, Odroid, Cube board, Raspberry Pi, Forlinx board etc
 - Serial communication: Rs-232, RS-485, UART, USART, ZigBee, Bluetooth(BLE), SPI, I2C, UDP Protocols.
 - Software Tools: KiCad, Kiel, AVR studio, TI software systems, Eclipse(ADT),OpenCV.
 - PCB Designing using KiCad.
 - Analog sensor interface for medical and Automotives
 - LIN , CAN & Ethernet Protocol.
 - Project management tool : JIRA, Slack, Git-Hub
 - System fault diagnosis
 - Use the appropriate Right Tools to complete the work with Quick Time Duration.
 - Preparation of Low level design doc.
 - System Architecture design
- Well versed with conceptualization & development of Microcontroller based Industrial Products in area of real time embedded system programming (C and Assembly Language).
- In-depth understanding of System Development Life Cycle including study of specifications, requirement gathering, designing, integration, testing, documentation and support.
- Involved in projects as RFID Security System, Temperature Sensor, I.R sensors, gas sensor, PIR sensor, GPS, GSM, digital clock, display counter using 7 segment display, Graphic LCDs, Touch Screens, Home/industrial security alert system.
- An effective communicator with strong interpersonal, team management, relationship management, coordination and analytical skills.
- hands on experience in circuit designing.
- Fast and Active Lerner
- Work experience with healthcare client (**POC Medical System- USA**) to develop cancer detection system
- Some project are bonded with non disclosure agreement

Academic Credentials:

	Passing Year	Institute	University	Percentage
B.Tech.	2013	Trident Group of Institutions, Ghaziabad	UPTU-Lucknow (Dr A.P.J Abdul Kalam Technical University)	70.35

Work Experience :

1. Working as **Sr Engineer** at **Ansyst Consulting**, Gurugram , since 1stNov 2014.

FUNCTIONAL

- Designing, developing, implementing & executing projects.
 - Calculating BOQ and Vendor Development for projects.
 - Implementing complex algorithms on high density, high frequency, performing timing analysis and simulation of design.
 - Tracking and identifying bugs in the software; debugging the software and preparing it for release to the end users.
 - Developing, implementing, integrating and executing projects for development of hardware and software for complex encryption systems.
 - Co-ordination with team member for designing high level technical design documents.
 - Updating the testing weekly status report to the team members; attending conference with testing team, development team and different client units.
 - Involved in coding, preparation of unit test conditions and Unit & Integration testing.
 - Setting up of the test environment for the testing of the product developed as per specifications.
 - working Experience with cross functional teams
 - Tracking and identifying bugs in the hardware; debugging the hardware and preparing it for release to end users.
2. Worked as **Embedded Developer** at **Ansal technical campus**, Lucknow-UP, Jul 2013 to Nov 2014.
 3. Worked as **Research Engg (Intern)** at **Robosapiense Technologies pvt ltd**, Noida UP, Sep 2012 to Jul 2013.

Relevant project experience:

Organization: Ansyst Consulting (Currently working)

Title: E-Health System (Medical Equipment)

Role: Documentation and Hardware and Firmware design, testing.

Client: **Ansyst Consulting**

Period: [NOV 2017 – till date](#)

Tools: AVR studio4, Linux Embedded System ,Server , Firebase , Analog Sensor Interface
Real time data processing and result display.

Synopsis: It will collect health data of your body and send it to central system that can be use
For understanding health condition.

Title: Heavy Vehicle Parking assistance system (Prototype Development)

Role: Documentation and Hardware and Firmware design, testing.

Client: **Anonymous**

Period: [JAN 2018 – till Date](#)

Tools: AVR studio4, Ultrasonic sensor , LIN protocol

Synopsis: Use for parking of heavy trailer and trucks

Title: 360 view System for commercial Vehicles (Prototype Development)

Role: Documentation and Hardware and Firmware design, testing.

Client: **Verroc Polymers Pvt Ltd**

Period: [Sep 2017 – FEB-2018](#)

Tools: AVR studio4, SBC , Camera interface , Linux , Open-Cv libraries , Ethernet

Synopsis: Blind spot alert system for School Bus , Successful demo in Auto expo-2018
(Component) -New Delhi

Title: Pandora CDx Point-of Care System (Medical Equipment)

Role: Documentation and Hardware and Firmware design, testing.

Client: **POC Medical Systems-USA**

Period: [NOV 2014 – MAR 2017](#)

Tools: AVR studio4, KiCad, Ti hardware Simulator and motor controller

Synopsis: Eclipse (ADT),Slack , JIRA, Analog sensor (higher speed -ADS-100), Ethernet
Cancer Detection System ,It includes all the necessary thing for a battery operated
electronic Medical Diagnostics Device .

Title: Panic Alarm System(central system for 200 apartment)

Role: Documentation and Hardware & Firmware design and commissioning .

Client: **Antara Purukul Senior Living- Dehradoon (Max Enterprises)**

Period: [Mar 2016 – Dec 2016](#)

Tools: AVR studio4, KiCad

Synopsis: It is a UDP based network system That connects to main server through UDP and
send the alert signal generated from Panic switch(Each apartment have 4-10
switches) to main server (Software based).

Title: Solar Anti Theft system

Role: Documentation and hardware, Firmware design.

Client: **Max India Foundation - Delhi**

Period: [Jun 2017 – Jan 2018](#)

Tools: AVR studio4, KiCad, X-Ctu

Synopsis: wireless anti theft system to prevent theft of solar street lights in region of 5 km

Title: **Home Automation System**
Role: Documentation, hardware and firmware design.
Client: Self
Period: [Nov 2014 – Jul 2015](#)
Tools: AVR studio4, KiCad
Synopsis: Control your Home Appliances (Light, Fan, AC, Geyser) using your Smart Phone App. The communication channel is used Wi-fi /Bluetooth controlled .

Organization: Ansal Technical Campus

Title: **PWM UPS**
Role: Design and hardware.
Client: **Self**
Period: [Aug 2013 – Oct 2013](#)
Synopsis: The inverter automatically adjusts its output voltage nearly constant by Adjusting it PWM and has smart overload protection system.

Title: **Accelerometer based robotic control**
Role: Hardware Design and codes development
Client: **Self**
Period: [Sep 2013 – Oct 2013](#)
Tools: AVR studio
Synopsis: Accelerometer (position sensor) interfaced with the microcontroller to control the robot's movement. The analog data generated by the Accelerometer according to the position is feed to the microcontroller.

Title: **RF ID Security System**
Role: Hardware and software design
Client: **Self**
Period: [Sep 2013 – Dec 2013](#)
Tools: AVR studio4
Synopsis: In this project we interface finger print module with the microcontroller through serial communication putting three different cases of adds, search and delete for the users. It will identify the user with specified ID number and according to the identification it will give the result.

Title: **Motor Controller, Solar Charger, Battery Management System and Display Panel For Electric Vehicle(Green Golf Car)**
Role: Hardware Design and codes development
Client: **Ansal API**
Period: [Nov 2013 – Oct 2014](#)
Tools: AVR studio
Synopsis: This project is aimed to control the motor of a electric vehicle also includes battery charger and its display unit.

Extra-Curricular Activities:

- Took active participation in fest and activities held at college.
- Participated in Several quiz competition held at school level.

Hobbies:

Research on new happenings, Solving Sudoku, Playing Cricket.

Personal Information:

Name	Harendra Pratap Singh
Mother's name	Mrs. Indu Singh
Father's Name	Mr. Ram Govind Singh
Date Of Birth	12 th JUN 1990
Languages Known	Hindi and English
Marital Status	Single
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Declaration

I hereby declare that all the above-mentioned facts are true to the best of my Knowledge.

Date: 24-04-2018
Place: Gurgaon

(Harendra Pratap Singh)