

# CURRICULUM VITAE

**Pratik Arun Farkase**

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## EDUCATIONAL QUALIFICATION

| QUALIFICATION | SPECIALIZATION          | INSTITUTE  | YEAR      | CGPA/%  |
|---------------|-------------------------|--|-----------|---------|
| PG Diploma    | Embedded Systems Design | CDAC-ACTS, Pune  | 2016-2017 | 62 %    |
| B.E.          | Electronics Engineering | Yeshwantrao Chavan College Of Engineering (YCCE), Nagpur | 2012-2016 | 6.89    |
| HSC           | Electronics             | Mohota College Of Science, Nagpur                        | 2012      | 69.83 % |
| SSC           | -                       | Bhavan's Bhagwandas Purohit Vidya Mandir, Nagpur         | 2010      | 9.2     |

## KEY PROJECTS

### ARM BASED ADVANCED DRIVER ASSISTANCE SYSTEM | CDAC-ACTS

(Dec 2016-Jan 2017)

- Developed **Lane Departure Warning System** prototype alerting the driver as the vehicle moves out of lane  
Tools/Software/Language: - Raspberry Pi, OpenCV, C++

### IoT BASED HEARTBEAT MONITORING SYSTEM

(Jan 2017)

- Designed a heartbeat monitoring system with live heartbeats measured using a **pulse sensor**
- Displayed Electrocardiogram waves, current beats per minute, and inter-beat interval on **OLED** display
- Information was broadcasted to and remotely monitored on open source IoT platform called **Cayenne**  
Tools/Software/Language: - NodeMcu, OLED, Arduino Programming Language

### HUMAN DETECTION FOR ROBOTIC URBAN SEARCH AND RESCUE | YCCE

(Aug 2015-April 2016)

- Built a two-wheel drive embedded electronic bot with ultrasonic sensor, temperature sensor, GPS module
- Exact coordinates of humans stuck under debris given through NMEA string in Latitude and Longitude
- Presented a paper on the same at '**SPANDAN 2016**', a national-level paper presentation event held at YCCE  
Tools/Software/Language: - Embedded C, MPLab, XC8 compiler, Microcontrollers

### DIGITAL LCD THERMOMETER | YCCE

(Aug 2014-Nov 2014)

- Built a simple, robust thermometer using **ATMEGA 16, LM35** sensor giving temperature readings on LCD  
Tools/Software/Language: - Embedded C, ATTEL studio 6.0, Microcontrollers

## TECHNICAL SKILLS

- Embedded C, Data Structures
- ARM V7-TDMI (LPC2148), Cortex M3 (LPC1768), Cortex M4 (STM32F4 Discovery Board), and AVR Programming in C
- Programming experience with Serial Communication Protocols (I2C, SPI, UART, CAN) in C
- Linux Kernel Basics, Kernel modules, OS Basics, Device Driver Basics
- Networking skills: - Knowledge of LAN, WAN, Ipv4, Ipv6, TCP/ IP protocol, DNS, DHCP, MQTT, COAP
- PCB designing using CADSOFT EAGLE tool
- Arduino Programming
- Applications: - Code composer studio, LTSpice, Tera Term, Eclipse, MATLAB, Wireshark, Keil µvision

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## **EXTRA-CURRICULAR ACTIVITIES**

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- Assembled an electronic bot from scrap material and raced it against competitors, finishing 5<sup>th</sup> among 10 participants at 'Junkyard Wars', an inter-college event held at YCCE
  - Avid rock music listener and pursuing guitar as a hobby, Technology enthusiast, Hardcore gamer
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## **PERSONAL DETAILS**

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|------------------------|-------------------------|
| <b>Father's Name</b>   | Arun Shaligram Farkase  |
| <b>Mother's Name</b>   | Sunita Arun Farkase     |
| <b>Nationality</b>     | Indian                  |
| <b>Gender</b>          | Male                    |
| <b>Marital Status</b>  | Single                  |
| <b>Languages Known</b> | English, Hindi, Marathi |