

SUBHADEEP DHANG

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ABOUT ME

ECE graduate, have strong interest in embedded systems and IOT. Spent the last two years of engineering developing numerous projects both independently and through collaboration with professors and college peers.

EDUCATION

COOCH BEHAR GOVERNMENT ENGINEERING COLLEGE

Bachelor of Technology

Electronics and Communication Engineering

Cumulative GPA: 9.23/10.0

Relevant Coursework: Digital Electronics, Microprocessors, Embedded Systems.

Cooch Behar, WB

June 2019 – July 2023

PERSONAL PROJECTS

RTC Based Digital Alarm Clock: [GitHub Link](#)

- Developed RTC driver and custom seven-segment display driver for STM32F4 microcontroller using registers ensuring precise time keeping and clear user interface.
- Handled debouncing of push buttons mapped to external interrupts by implementing “millis()” function using Timer peripheral.
- Optimized over 500 lines of C code resulting in better response time and smaller footprint size.
- Created technical documentation, hardware schematics, software flow-charts and user manual.
- Tools and Technologies used: Platform.io IDE, STM32cubemx, STlinkv2 debugger, Multimeter.

COLLEGE PROJECTS

Illegal Horn Blow and Over Speeding Detection, Recording and Reporting Systems for vehicles:

June 2023

- Programmed Arduino Uno to acquire data from GPS module and voltage sensor , implemented UART protocol to establish serial communication between Arduino and Raspberry Pi 4.
- Developed and tested over 250 lines of Python script on Raspberry Pi to ensure proper reception of data and execution of necessary actions.
- Handled exceptions of file handling and serial communication using Python exception handling mechanisms to enhance code reliability.
- Tools and Technologies used: Arduino IDE, Thonny Python IDE, VNC Viewer, USB logic analyzer.

KEY SKILLS

- Proficient in Embedded C programming and familiar with Python scripting.
- Good knowledge of Embedded Systems including -
 - i) Various microcontroller peripherals - GPIO, Timer, ADC, DAC, DMA etc.
 - ii) Communication buses - UART, I2C, SPI.
- Experience of firmware development and debugging on ARM based microcontrollers.
- Working knowledge of Linux (commands, utilities) and familiarity with FreeRTOS.
- Experience with version control systems such as GIT.
- Soft Skills: Learning mindset, Problem solving, Ability to communicate and collaborate.

ADDITIONAL

Languages: English, Hindi.

Hobbies: Working on innovative personal projects, Reading technical articles and blogs.