

# MOHIT SARVA

✉ mohitsarva98@gmail.com  
☎ 917610085553  
📍 Udaipur (Rajasthan), India  
🌐 linkedin.com/in/mohitsarva

## TECHNICAL SKILLS

- C, C++, Assembly, VHDL, Embedded C, Python  
**languages**
- ARM Cortex, Atmel, STM32, ESP32, MSP430  
**Microcontrollers & Raspberry Pi**
- I<sup>2</sup>C, SPI, UART, RS-485, GPIO, ADC, PWM  
**hardware interfaces**
- DLMS, Modbus, MQTT  
**comm. Protocols**
- JTAG, SWD, Logic Analyzer  
**development tools**
- Unit testing, Integration testing, Static Analysis (CodeSonar)
- RTOS, Bare Metal Programming
- MS Excel & MS Word  
**doc. softwares**
- Keil µVision, e<sup>2</sup> studio, IAR Workbench, STM32CUBE  
**IDEs**

## EDUCATION

### B. Tech.

### Electronics & Comms.

Rajasthan Technical University

📅 2016 – 2020

📍 Govt. Engineering College Bikaner

## INTERESTS & HOBBIES

Science and Technology, Space and Astronomy, Music, Sports, Swimming, Photography, Trekking, Table Tennis, Badminton, Cricket

## SUMMARY

Experienced Embedded Systems Engineer with a strong background in developing, debugging and optimizing embedded systems like smart electricity meters. Proficient in utilizing ARM Cortex MCU technology and skilled in working with real-time operating systems (RTOS). Focused on leveraging technology to create innovative solutions and drive advancements in the embedded systems domain.

## WORK EXPERIENCE

### Embedded Software Developer

#### Secure Meters Pvt. Ltd.

📅 Sept. 2022 – Present

📍 Udaipur, Rajasthan

- Designed, implemented, and optimized application layer code for customer requirements related to smart electricity prepayment and credit meters, utilizing STM32L4 ARM Cortex M4 low power MCU technology.
- Gained hands-on experience with FreeRTOS and third-party RTOS through practical application.
- Acquired knowledge of industry-standard protocols including Modbus and DLMS.
- Emphasized adherence to Agile methodology and proficiently managed Git repositories. Conducted requirement analysis, firmware unit testing, followed coding guidelines, and performed debugging to enhance code quality and reliability.

### Junior Research Fellow

#### CSIR-CEERI Pilani

📅 Mar 2022 – Aug 2022

📍 Pilani, Rajasthan

- Programmed and integrated the ESP32 microcontroller to connect sensors and actuators for comprehensive environmental monitoring.
- Prepared printed circuit boards and electronic circuits to support the microcontroller unit, sensors and actuators.
- Leveraged Google Firebase for IoT applications, managing real-time databases and enabling seamless connectivity and synchronization within the Android application created using a high-level block-based visual programming language.

## PROJECTS

### College Projects

- Designed **16-bit RISC based multicycle processor** using VHDL and ISE Design Suite -Xilinx.
- Developed **the water level controller and monitor** for over-head tanks.
- Transformed a LED bulb into **smart LED bulb** to turn on/off lights based on human presence/absence.

### Internship & Training Projects

- Developed **IMU** for calculating three dimensions (Rolls, Pitch & Yaw) of movements.
- I utilized the opportunity to learn Raspberry Pi & Python programming language to develop an **Automatic Vending Machine**.