



# Prince Pradeep Tripathi

EMBEDDED FIRMWARE DEVELOPER

tripathip361995@gmail.com ✉

8793872950 📞

Baner, Pune, India 📍

I'm a Embedded C Developer with a background in Electronics & Telecommunication. Certified from "CDAC Bangalore" in Embedded system and design. Currently working at MeshBA Solutions Private Limited to become an integral part of the organization & contributing through my technical skills coupled with my ability to work in a team.

## WORK EXPERIENCE

### Embedded Firmware Developer MeshBA Solutions Private Limited

12/2020 - Present

Pune, India

#### Achievements/Tasks

- Responsible for coding part of SolaHD power supply and SCM module. Working with code to enhance to build system. The coding is based on C / C++ languages. Responsible to handle the communication between the SolaHD power supply and SCM module using MODBUS. Also responsible to create and implementation of MODBUS MAP and MODBUS request or response when it is carried on a MODBUS TCP/IP network.

### Embedded C Developer LogicEastern India Pvt Ltd

02/2018 - 06/2020

Noida, India

#### Achievements/Tasks

- Smart Energy Meter Develop and debugging using C for the smart energy meter. Research and implement GSM, HDLC, and LORA technology for this product. Worked on firmware and application level of the smart meter. Testing related to all the operation of smart meter before deploying. Responsible for the development of application and COSEM test for DLMS testing. Responsible for the client relationship and also all support related to the product

## EDUCATION

### Post Graduate Diploma Center of development and advance communication (CDAC)

02/2017 - 09/2017

Bangalore, India

#### Courses

- PG Diploma in embedded system and design

### Bachelor's in Engineering PES Modern college of engineer

08/2013 - 08/2016

Pune, India

#### Courses

- Degree in Electronics & Telecommunication

### Diploma / Polytechnic Karmaveer Kakasaheb wagh polytechnic

07/2010 - 08/2013

Nashik, India

#### Courses

- Diploma in Electronics and Telecommunication

## SKILLS

Programming language:- C (Data structure, Basic Device driver), Basic C++ , Assembly Languages

Software:- IAR workbench, Source Insight, Gurux & Kalkitech (For smart meter), Keil, Cortex (STM32), Visual Studio Code.

Operating System:- Linux, FreeRTOS, Windows

Peripherals: UART, SPI, I2C

Compiler/IDE/Tools: GNU DEV C , IAR, Ozone V 3.2, Visual Studio Code

Networking Protocol:- IPC and Socket programming, Packet Tracing, DLMS Protocol, MODBUS protocol.

## PROFESSIONAL PROJECTS

### SCM Modbus TCP Module (12/2020 - Present)

- Working with code to enhance to build system.
- The coding is based on C / C++ languages.
- Responsible to handle the communication between the SolaHD power supply and SCM module using MODBUS.
- Also responsible to create and implementation of MODBUS MAP and MODBUS request or response when it is carried on a MODBUS TCP/IP network.
- Modbus Request Validation responsible for validation of the Modbus query received from the client.
- Modbus Frame Encoder-Decoder If the Received Modbus Request is Valid then the Modbus Frame Encoder-Decoder will pass the parameters like the function code, Start Address, and the Length to Modbus Map Handler in order to read the corresponding data from the shared Memory.
- Modbus Map Address Boundaries it is necessary to know boundaries of SCM Data and SDN Data(PSU1 and PSU2).
- The "Modbus Server" Chanel reads following SCM and SDN Data from the shared memory. i.e (SCM FRU Data, SCM Operation Data, SCM Status Data)

### Smart Energy Meter (05/2018 - 06/2018)

- Development of new products and maintainance of the existing products.
- Developing the firmware for smart energy meter product.
- Developing the firmware that could communicate with the smart meter using neoway GSM module.
- AMI (Advance metering infrastructure) and AMR (Advance meter reading).Also responsible for energy auditing,network analysis,meter testing,data validation,meter firmware testing.
- Responsible for the code coverage for the smart meter code.
- Responsible to provide the release of a code with changes according to the clients requirement.
- Responsible for the testing part of the smart energy meter including all the basic DLMS (Device language message specification) test.
- Responsible for the client handling and provide support for the smart meter project.