U JAGADEESH

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PROFILE SUMMARY

Young, energetic and result oriented professional offering with **2 years** of experience, currently associated with **McWane India Private Limited**, Coimbatore as **firmware developer for Internet of Things (IoT).** Extended expertise in developing embedded software in C for MSP430. Hands on experience on communication protocols.

- Have experience in developing code for micro controller for IoT and Industrial applications.
- Adept in analysing information system needs, evaluating and user requirement, customer design solution.
- Well versed with embedded application development.
- Experienced in working with technical teams for executing concurrent projects.
- Proficiency in technical documentation, design, development.

ORGANISATIONAL EXPERIENCE

Since October 2019 with **McWane India Private Limited**,
Coimbatore as **Embedded software Engineer.**

- Handling various technical aspects like coding of modules using the given design specification, debugging and fixing the defects as well as analysing its root cause.
- Ensuring that business requirements and functional specification for the module coded by me or tested and fulfilled before the code delivered for integration.
- Coordinating with team members for system designs, integration, application maintenance, etc.
- Following the best practice for project support and documentation as set by peers.

EDUCATION

Degree/Trainee	BRANCH	College/University	Year of passing
Certification	RTL design & verification	MAVEN SILICON	2018 - 2019
BE	Electronics & communications	SVIT/VTU – Bengaluru	2018
Intermediate	MPC	Vivekananda jr collage	2014
10th	----------	Z.P High school	2012

TECHNICAL SKILLS

- Technologies : Embedded, IOT, LORA WAN, GSM.
- Programming languages : Embedded C, Verilog, c++
- Controllers : MSP430.
- Sensors : 4-20 mA Signal, Pressure Sensors, Float switch sensor.
- Tools : CCS for MSP430 developing.
- External interface : GSM & LTE modems (Quectel), ADC, AcSip LoRa. Radiohead LoRa modules,
- Protocols : UART, I2C, SPI & SSD1306 OLED with I2C, knowledge On custom applications development for IOT.
- Quality and documentation Expertise : 1. Defining the rigorous test exectution setups and d Developing Test modules.
  2. Experence in preparing the functional test cases And user manual, trouble shoots guides and other Technical documents.

PROJECTS

Project-1 Name : AMR for Water meter (Cellular & LoRa)

Development owner : McWane India private ltd

Description:

This is an AMR solution to enable IoT features for existing multiple brands of water meters in the market which could provide the data on a request. The AMR could be mechanically & electrically compatible to retro fit for an installed meter and also as well as for a new meter. The electronic unit of AMR is a battery operated device and captures the data as per the configuration. The LoRa based AMR sends recorded data through LoRa based wireless network to the HUB/Gateway. The hub unit could collect the data from multiple AMR units and upload to the cloud. The Cellular based AMR will directly send data to cloud using HTTP. The software system will take the data from the cloud and provide possible analytics.

Tools & Technology's:

- Embedded c, MSP430 controller, code composer studio, ADC, TIMERS, RTC, FLAH, WACHDOG TIMER, UART, LORAWAN and GSM & LTE modem (Quectel).

Role & Responsibilities:

- Understanding the existing firmware modules and defining & designing the modification needed
- Designing the new firmware modules and developing with the team

- Implementing the functional test cases and testing the firmware.
- Implementing the interface protocol to communicate different meters.

Project -2 Name : Smart - Control valve

Development owner : Mcwane India private ltd

Description:

The Control valve is used to actuate the electrical solenoid for the gate valve and controlling the IN&OUT Pressure and Flow rate in valve, this project is fully battery operated device. Included with 128x64 OLED i2c displays for alarms and rtc time configurations, with this project solenoid can latch with alarms or manually. Four alarms are interfaced with rtc. Solenoid can latch specified timings with day of the week, day, month year and timings and connected Bluetooth with mobile. This project futures is user interactive pushbuttons, led status indication for alarm wake-up's fully battery operated device, display for manual trigger status, auto trigger program. Manual trigger operation provided, and can able to change device settings with Bluetooth.

Tools & technology's:

- MSP430 controller, code composer studio, ADC, UART, RTC, I2C, SSD1306 OLED, TIMERS, Watch dog timer, flash, Bluetooth, 4 – 20 Ma Signal, Pressure Sensors.

Role & Responsibilities:

- Understanding the existing firmware modules and defining & designing the modification needed
- Designing the new firmware modules and developing with the team
- Implementing the interface protocol to communicate different relays.
- Circuit developing for relay control.
- Implementing the functional test cases and testing the firmware and hardware.

PERSONAL PROFILE

Name	**: Uppalapati Jagadeesh**
Father's Name	**: Jayappa**
Date of Birth	**: 27/12/1996**
Languages known	**: English, Telugu, Kannada, Tamil.**
Address	**: Hennur main road, Geddalahalli, BDS garden, 10th cross, #1/1, Kothnoor(p), Bengaluru – 560077**