

SEEMA B TAMMANNAVAR

D/o Basappa Tammannavar, Swagath colony, Gopanakoppa Hubli. Taluk: Hubli
Dist:Dharwad State:Karnataka. PIN:580023
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Experience

- Bdgtronix Pvt. Ltd, Bangalore** January-2024 - Present
Embedded Software Developer
Total of 1 year and 4 months of experience as an Embedded Software Developer at BDGtronix Pvt. Ltd. (Bangalore), from January 2024 to present.

TECHNICAL SKILLS

- Hands-on experience in C and Embedded C programming
- Worked with 8-bit and 32-bit microcontrollers such as PIC and STM32
- Familiar with wireless interfaces like NRF (nRF24L01) transceiver and Wi-Fi (ESP8266)
- Experienced in configuring microcontroller peripherals:
 - Inputs/Outputs: GPIO, Interrupts, ADC, PWM, CCP
 - Internal Modules: Timers, EEPROM, Watchdog Timer
 - Displays: LCD, 7-segment display
- Communication protocol expertise: UART, SPI, I2C, Modbus
- Worked with RS232, RS422, and RS485 modules
- Networking knowledge: TCP/IP, DHCP
- Proficient in UML and sequence diagrams, and technical documentation
- Basic skills in hardware debugging and schematic analysis
- Tools & IDEs:** MPLAB X IDE, MPLAB X IPE, Eclipse IDE, Arduino IDE
- Utilities:** Beyond Compare, Docklight, Tera Term
- Debugging Tools:** PICKit2, PICKit3, STM32 ST-Link Utility, Saleae Logic Analyzer, Oscilloscope

PROJECTS HANDLED

- Smart Fan Controller:**
A smart controller with an IR receiver allowing universal remote operation for fans.
Key Responsibilities:
 - Implemented software delay logic
 - Interfaced EEPROM to store fan states
 - Handled IR receiver using Interrupt-On-Change feature in the controller
- Smart Home Automation:**
Developed a smart switchboard to control lights, fans, and sockets via Wi-Fi app, NRF remote, and touch sensors.
Key Responsibilities:
 - Designed system architecture and created flow diagrams
 - Interfaced ESP8266 (UART) with PIC16F18876
 - Interfaced NRF24L01 with PIC16F18876 (RX) and PIC16LF18344 (TX) via SPI
 - Implemented secure random key exchange between receiver and transmitter
 - Connected TTP223 touch sensor via GPIO (interrupt-based)
 - Detected key presses on the remote using hex keypad method
 - Enabled port forwarding for controlling multiple boards via one router
 - Used EEPROM to read/write light and fan status
 - Integrated watchdog timers in RX and TX boards
 - Performed unit and integration testing with detailed reports

EDUCATION

- STJ Institute of Technology, Ranebennur. Visvesvaraya Technological University** 2022
B.E. in Electronics & Communication
6.9
- Tippu Shaheed Institute of Technology, Hubli. Karnataka Board of Technical Examination** 2019
Diploma in Electronics & Communication
56.58%

PERSONAL DETAILS

- **Name** : Seema B. Tammannavar
- **Date of Birth** : 14-02-1999
- **Gender** : Female
- **Marital Status** : Unmarried
- **Languages Known** : English, Hindi, Kannada
- **Permanent Address** :
D/o Basappa Tammannavar,
Swagath Colony, Gopanakoppa, Hubli,
Taluk: Hubli, District: Dharwad, Karnataka – 580023

DECLARATION

- I hereby declare that the above information is true to the best of my knowledge.

Place: Bangalore
Signature: Seema B. Tammannavar