

VENKATA SHRAVAN KUMAR PAGOLU

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OBJECTIVE

Seeking a quality environment where my knowledge can be enriched so as to meet the organizational goals.

CAREER HIGHLIGHTS

- 8 years of technical experience in Embedded development, IEEE 802.15.4 based board bring ups, Firmware verification and Technology Innovation.
- Inventor of THREE patents pertaining to Wireless mesh networking.
- Experience in all aspects of the software development life cycle from inception to delivery of products including requirements gathering, architecture, functional specification, design, implementation, debugging and documentation.
- Worked on Wireless module development right from Antenna design to Range testing.
- Expertise in Wireless testing involving low power radio like ZigBee.
- Ability to work across different multicultural teams across the globe.
- Ability to work on different projects and work in a start-up environment.
- Underwent Agile training and worked on Agile projects with tools like Scrum Works.

PROFFESIONAL SKILL SET

➤ Programming Languages

C, Embedded C, Freescale CodeWarrior IDE for low power radio controllers, Python, etc.

➤ Protocols

Knowledge of I2C, SPI and IEEE 802.15.4a (ZigBee Protocol).

➤ Operating system

Windows.

➤ Hardware Knowledge

Freescale's MC1321x low power ZigBee controller's 8051 family Microcontrollers, PKI, RF Fundamentals.

➤ Tools

Wireless Sniffer: Daintree's Sensor Network analyzer, Ubiqua protocol analyzer.

Engineering Simulation tools: Rohde & Schwarz Spectrum analyzer, Tektronix CRO.

➤ Debuggers

P&E Cyclone PRO programmer / debugger for HCS08 controllers.

➤ Other Tools

Clear-Quest

PATENTS

METHOD FOR EXCLUSIVE JOINING OF MULTIPLE DEVICES IN A WIRELESS MESH NETWORK DURING COMMISSIONING -- India 3706/CHE/2013

TROUBLESHOOTING DEVICE AND METHOD FOR INSTANTANEOUS ERROR DEPICTION BASED ON LOG FILES OF NETWORK DEVICES -- India 3721/CHE/2013

EFFICIENT ROUTING BY ADVOCATING ENERGY EFFICIENT METHODS – Patent Pending

PROFFESIONAL WORK EXPERIENCE

Schneider Electric Global R&D – Efficient Home *September '11 – August '14*

Senior Verification Engineer

Project Tittle: Efficient Home – ZigBee Protocol Verification

Domain: Residential Control and Home Automation

Description: As smart homes have evolved as a new and efficient way of living, the need for energy efficiency has become a necessity in ever growing sector of Home Automation.

Responsibilities:

- Verification of ZigBee stack, component verification, range and application profiles for Residential Control ZigBee products in ECO Business.
- Development of Test plan for the entire ZigBee Automation and Manual testing.
- Responsible for wireless firmware build release by working closely with wireless architects, firmware engineers and QA teams.

Schneider Electric Global R&D – Partner Global Engineering *July '13 – August '14*

Internal Patent Prior Art Animator

Domain: Patent Research and Analytics

Description: Patent research in the field of embedded software and hardware.

Responsibilities:

- Assisting the Local Patent Correspondent to take forward the creative ideas into successful patents.
- Brainstorming on ideas.
- Working closely with the inventor's to develop correct claims for ideas.

Symphony Corporation – Proacticare CareMetric System

January '11 – August '11

RF Engineer

Project Title: Proacticare CareMetric System – ZigBee Protocol Verification

Domain: Residential Control and Home Automation, Building Automation

Description: The Bed Management System (BMS) is a comprehensive survey of a patient monitoring system. With the implementation of BMS, hospitals can easily monitor the traffic of patients in a more systematic way by providing a hassle free process for the hospital administration.

Responsibilities:

- Working with the on-site RF team in the RF signal amplification design.
- Testing and organizing the data of the sensor nodes in the IEEE 802.15.4 network.
- Interfacing a 467MHz Pager base station to the existing 2.4GHz IEEE 802.15.4 network.

Linkwell Telesystems – ZigBee for Smart Energy Meters

January '08 – Dec '10

Product Development Engineer

Project Title: ZigBee for Smart Energy Meters – ZigBee module development

Domain: Building Automation

Description: As the applications in the Utility sector are growing day by day

and with the advent of cheap radio frequency (RF) modules, the design and development of a low power ZigBee module was introduced. A long range (100m to 120m) ZigBee module is designed to work in a Mesh network topology for a reliable communication with Smart Energy Meters.

Responsibilities:

- Wrote a test analysis firmware for the complete ZigBee module.
- Worked on the fully compliant mesh protocol stack deploying six nodes (including ZigBee coordinator).
- Involved in the amplification circuit design.
- Designed and tested the wireless module in EMI/EMC lab for power amplifier characteristics.
- Implemented various RF tuning techniques for the maximum power generation of the module.
- Worked with the Fabrication team in the design phase of the ZigBee module.
- Trained and supported the Production team in the successful assembling and testing of the module.

EDUCATION

Bachelor of Technology (Electronics and Comm. Engineering), 2005.

Jawaharlal Nehru Technological University, Hyderabad