**RESUME**

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**OBJECTIVE:**

To work in a professional environment that will exercise fullest of my knowledge and give me ample opportunity to learn most of the evolving technologies and thus ensuring mutual growth.

**QUALIFICATION:**

Completed M.Tech in Digital Communication Engineering from MSRIT, Bangalore in 2014 with CGPA of 9.19 and B.E in Electronics and Communication from B.I.E.T, Davangere.

**SKILLS SUMMARY**

* Languages : C, Perl scripting, PHP
* DBMS Packages : MySQL, Antelope
* Development Platforms : Linux, Contiki, Windows family
* Network Analyzer : Wireshark, NAST
* Simulator : Cooja, NS2, Matlab
* Protocols : 6LOWPAN, RPL, CoAP, UDP, MQTT, TCP/IP, IPV4, IPV6. 802.15.4
* Micro Controller : ARM Cortex, MSP430, 8051
* Gateway platforms : C-DAC i-WASE, Panda Board, TP Link, Netgear
* Mote platforms : C-DAC i-WISE, TelosB, Iris

**WORK EXPERIENCE**

* Presently working on water quality, precision agriculture and smart grid projects as Project Intern at ERNET INDIA since February 2014.
* Assisted in teaching and tutorial for WSN lab and Communication lab, Dept of TCE, MSRIT, Bangalore.

**PRESENT WORK**

* Implementing wireless monitoring system for real time applications over 6LoWPAN protocol stack in-order to make the wireless sensor nodes participate in ’Internet of Things’. Work involves implementing the whole design tool over Contiki operating system, understanding different layers of communication architecture, implementing and making changes to the existing protocol stacks.
* Design and implementation of CoAP based system for the treatment of effluents in textile industries, precision agriculture and smart meter. The system is based on the recent WSN standards from IETF such as CoAP, RPL.

**CERTIFICATIONS:**

* Presented and published paper titled “CoAP Based Wireless Sensor Network Designed for Effluent Treatment of Water in Textile Industries” at National Conference on “Information Technology for Sustainable Future (NCITSF-14)” at JAIN University, Bangalore and IJERT journal.
* Published paper titled “Design of 6LoWPAN enabled Real Time Water Quality Monitoring System using CoAP” at Asia Pacific Advanced Network 38th meeting (APAN 38th), at Nantou, Taiwan.
* Project titled “6LoWPAN Enabled Automated System for Treatment of Effluent Water from Textile Industries Using WSN” was selected and funded by KSCST in the 37th series student project programme (SPP).
* Participated in the work shop on “Light Runner an Optical test Bench and Its Applications” organized and supported by MSRIT and IEEE Photonics Society and Fiber Optics Technology.
* Participated in the work shop on “Recent Advances in Computer and Communication Networks” organized and supported by MSRIT and IEEE Communication Society and IEEE Computer Society.
* Participated in the work shop on “NS2 (Network Simulator 2)” organized and supported by MSRIT.
* Participated in the work shop on “Innovate now! Intel Atom Innovation Kit” organized and supported by MSRIT and Intel India.
* Participated in Papyrus, the seminar on “Smart Card Technology” organized and supported by EC forum BIET, Davangere.

**PROJECTS**

* **M.Tech Major Project**

“6LoWPAN Enabled Automated System for Treatment of Effluent Water from Textile Industries using Wireless Sensor Network (2013-2014)”. Project carried out at MSRIT in collaboration with Education and Research Networks (ERNET) and IISc, Bangalore.

**Summary of M.Tech Thesis:**

South India has many Industries where large scale textile activity is being carried out. Discharged waste water from these industries under uncontrolled and unsuitable conditions leads to significant environmental problems. This is a R&D based project, which proposes a novel approach to address most of these problems. The proposed technique involves various steps like real time acquisition of data, transmission of data, collection and display of data and actuation technique for treatment of water. The acquired data from these sensors are communicated wirelessly to a remote base station and then interfaced to a network enabled host computer, where all the received real time data can be displayed using CoAP, HTTP or linux terminal. The real time data from the sensor can also be stored in a database and graphical represented to analyze the variation in water quality parameters. Rectification system is also designed and implemented which performs the required corrective action, when the values of parameters are not in the permissible range. The project also depicts the usage of Contiki OS, RPL, 6LoWPAN, CoAP and other protocols for building an application using wireless sensor network. GUI has been developed to give a pictorial representation of the variations in sensor data so that detailed analysis of the variations with respect to time can be studied.

**Software:** Contiki OS, Linux, 6LoWPAN, CoAP, Cooja Simulator, MySQL.

**Hardware:** Water quality monitoring sensors, WSN Motes (Telos), Base Station, Relay Circuit, Motor, Panda Board**.**

* **B.E Project:**

“GPS Based Time Synchronization with Master Clock of 1ms Accuracy” (2011-2012). Project carried out at B.I.E.T, Davangere.

**Summary:**

Monitoring the satellite time and displaying with 1ms accuracy is the aim of this project. In many timing applications, such as emergency dispatch, time / frequency standards, site synchronization systems and event measurement /tagging systems, GPS receivers are replacing older timing technologies. The GPS constellation consists of 24 orbiting satellites. Each GPS satellite contains a highly-stable atomic (cesium) clock, which is continuously monitored and corrected by the GPS control segment.

**Hardware**: Microcontroller P89V51RD2, GPS module, RS 232 Converter, Ultrasonic sensor.

**SOFT SKILLS:**

* Good analysing ability, Listening capability, Optimistic & Quick Learning ability
* Co-operative, flexible, hard working, honesty and sincerity

**COURSE WORK**

* Advanced Communication Networks
* Wireless Sensor Networks
* Digital Signal Processing
* Real Time Embedded systems
* Digital Communication

**PERSONAL DETAILS:**

Father’s name : Umesh.B.C

Mother’s name : Bharthi.B.H

Date of Birth : 18th February 1991

Gender : Male

Nationality : Indian

Hobbies : Making New Friends, Travelling, Cooking, Listening to music.

Languages known : English, Kannada, Hindi

**DECLARATION:**

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

**Date:**

**Place: ADARSH.B.U**