

RESUME

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Status:

- ★ An organized, motivated and creative with 5 years of industry experience with research, standardization, software development and leadership.
- ★ Working as a Senior Design Engineer for a diverse variety of projects with focus on 5G and IoT.
- ★ Currently looking for a challenging position where I can utilize my existing skills to add value in research area.

Work Experience:

- Senior Design Engineer : Smartron India Private Limited, Hyderabad (Jun-2017 - Present)
- Design Engineer : Smartron India Private Limited, Hyderabad (Jul-2016 to May-2017)
- Software Engineer : Exilant Technologies Private Limited, Bangalore (Feb-2015 to Jun-2016)
- Project Associate : Indian Institute Of Science (IISc), Bangalore (Nov-2014 to Feb-2015)
- Project Intern : ERNET India, Government of India (Feb-2014 to Nov-2014)
- Assisted in teaching and tutorial for WSN lab and Communication lab, Dept of TCE, MSRIT, Bangalore.

Academic Profile:

The **M.Tech** in **Digital Communication Engineering** from MSRIT, Bangalore with CGPA of **9.19/10** and **B.E** in Electronics and Communication from B.I.E.T, Davangere.

Major Skills Set:

- Programming languages expert in **C** and **Python**.
- Experts in standards of **IEEE 802.11**, **IEEE 802.15.1**, **IEEE 802.15.4** and **IEEE 802.15**
- Motes: TelosB (sky), Iris, CDAC, TI motes and STM devices.
- Sniffer tools: Wireshark & tcpdump
- Good knowledge in **network** protocols and **wireless** protocol stack.
- Embedded OS: Contiki, OpenWSN, RIOT, FreeRTOS and Mbed OS.
- Software Defined Networks (**SDN**) and **Security** system
- **Wi-Fi** Self Organised Networks (SON), **Bluetooth**, **5G Communications**, **6LoWPAN**, **6TiSCH**, **LoRA**, **NFC** & **Z-Wave**
- Embedded devices: Qualcomm Dakota chipset, MSP430, Cortex-M3, ARM, STM32, TI CC2530, Rpi, Beaglebone, Panda-Board and many more.

Request for Comments (RFC): Draft is in progress for secured onboarding of client devices to the local network in mesh technology.

VOLUNTEER EXPERIENCE:

- Multistakeholder Advisory Group member First edition Indian Youth Internet Governance Forum.
- Internet Society (ISOC) Hyderabad chapter organizing Member
- Actively involved in conduction of pre-IETF event, Connections with IIESoc
- Organizing membre of ISOC-Rural-development-Special Interest Group in global level.
- IEEE trainer for VLEs - Village Level Entrepreneurs
- ISOC trainer for BWCN (Building Wireless Communication Networks)
- Active at IETF working groups as a volunteer.
- Resource Person in Multiple Engineering Colleges educated more than 500 students and faculties.

Present Work Experience:

Currently working as a Senior Design Engineer at Smartron India Private Ltd in Hyderabad, India.

Handling team of **Wi-Fi** SON Mesh technology, **Bluetooth**, **6LoWPAN** and **Z-Wave** technologies. Responsible to build in-house complete **software design and development** for 6LoWPAN, Z-Wave, Bluetooth & Wi-Fi based on project requirement. Working on multiple IoT frameworks like IoTivity, AllJoyn and operating systems like Contiki, OpenWSN, RIOT and Mongoose.

Involved in **research and protocols standardisation** in the field of **IoT, 5G, SDN, WSN** and **IPv6**.

Publications:

- Presented and published paper titled to IEEE “**Automated Smart Sericulture System Based on 6LoWPAN and Image Processing Techniques**” at “*2016 International Conference on Computer Communication and Informatics (ICCCI)*” at Coimbatore, India.
- Presented and published paper titled “**Realizing open, standards based approach to Internet of Things for Agriculture Monitoring and Actuation System.**” at proceedings of the *Asia-Pacific Advanced Network (APAN) Taiwan, ISSN 2227-3026*.
- 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.
- Published paper titled “**Realizing IoT Based Intelligent Automated Savvy Home System on Image Processing**” at *International Journal of Advanced Research in Science and Engineering (IJARSE)*, Volume No.06, Issue No. 11, ISSN 2319-8354.
- 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.

Previous Work Experiences:

- *Smart NetLocker for Manappuram Finance Limited:*
Developed a smart IoT based lockers for Mannapuram gold loan. Complete automated sensing and actuation process by making use of Netduino boards. One of the first design for IoT based locker system.
- *CyPhyS+ - Building a Cyber Physical System for Healthcare Applications over a Managed 6LoWPAN network using wearable devices (DeitY Funded Project):*
This project aims to be a model for future remote healthcare monitoring systems. Such a system should be easy to deploy and use as well as reliable and secure. It should provide two-way communication to facilitate sensing as well as control.
- *Real Time WQMS for Domestic and Drinking Water using WSN:*
Implementation of IPV6 enabled real time automated drinking water quality monitoring system. The system is designed and implemented over 6LoWAPN protocol stack, which enables sensor nodes to participate in “Internet of Things”. Software implementation of the system is based on Contiki OS. This work also involves understanding different layers of communication architecture, implementing and making changes to the existing protocol stacks.
- *CoAP based design for Effluent Treatment of Water in Textile Industries:*
Design of closed loop system using the IETF recognized standards such as CoAP, RPL, 6LoWPAN for the treatment of effluents in textile industries. The system is based on the recent WSN standards from IETF such as CoAP, RPL.
- *Open, standards based approach to Internet of Things for Agriculture Monitoring and Actuation System:* Internet of Things (IoT) is expected to drive many internet standardization efforts and shape how future real world internet communication happens.
- *Many more applications based on smart street lighting, industrial water quality and air quality monitoring and involved in complete network stack development and security system development.*

Declaration:

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

ADARSH BASAVAPURA UMESH