**TAPAN SHRIMALI**, **B.E.(EC)**

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**Objective**

To pursue a challenging career in Embedded Systems to enhance my skills & career growth

## (Embedded Relevant=5 years) Overall Work Exp : 10.5 yrs

- System architecture and design for Embedded Electronic Products;
- System integration: (Concept, Design, Implementation, Validation, Verification, Compliance
- Good at RTOS (VX-Works) & non-RTOS based system design, Device drivers

| | |
|---|---|
| **Hardware worked** | LPC1768 (ARM-9), LPC-2148 (ARM-7); Nucleo- F401RE, 8051 ; PIC ; AVR; ESP32 (using esp-IDF ; Raspberry Pi B+, ESP8266 ; ATMega Series, Sensors & Actuators; VFD and PID controllers |
| **Middleware** | Firmware Development & Application programming in C &C++ |
| **Software/IDEs** | **CCES-2.9.2, QT, Keil; IAR ; Cube MX ; Atmel Studio ; mBed** |
| **Serial Comm** | Expert in (UART , I2C, SPI), Knowledge of USB  /TCP/IP |
| **Knowledge of** | Linux Device Drivers, OS internals; Multithreading ; VX-Works |
| **Cloud IoT applications** | Devices/system interaction and troubleshooting |
| **Gateway to Server** | HTTP, HTTPS, MQTT, CoAP, 6LoWPAN, TCP/IP, UDP |
| **Technologies** | Expert in building IoT Application with IBM Cloud **(Python)** |

## Organizations

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| Working as **Embedded IoT Developer** at TesnaTech Pvt Ltd. Mumbai from 24th Aug. 2019. |
| **1.5 years** worked as 2nd Nov-2017 to 31st March **Sr. IoT Engineer** at **SmartBridge Hyd.** |
| **8 months worked** as **Sr. Training Engineer** (Embedded & IoT @ **Axelta Hyd** |
| **7 months** undergone Training in "**Embedded. Systems & IoT" @ ISM, Hyderabad** |
| **(2.5 yrs) @ VIN Semiconductors Pvt Ltd, MUMBAI:-** Industrial Lighting Energy Saving. |
| **(1.2 yrs) @ Digital Marketing Systems Pvt. Ltd. Indore, M.P.** :- **Sr. Application Engineer** for **'ABB' Automations & Process Control**, |
| **(1.5 yrs) @ Nvis Technologies (Scientech,Indore (MP)** as **Training Coordinator** in Engg. Colleges for Embedded Systems, DSP based Educational kits & Instruments. |
| **(1.8 yrs ) @ Pragmatic Embd. Solutions**, **Bangalore** :- (**20th** May 2009 to 31 Jan.2011)  as **Embedded Systems Engineer** for  8051,PIC, AVR , ARM-7 for Educational projects |

| Exam | Sub/ Discipline | Year | University/ Instt | Percent |
|------|-----------------|------|-------------------|---------|
| PG Diploma | Embedded/IoT | 2017 | ISM Hyderabad | 93% |
| B.E. | E.C. | 2008 | R.G.P.V. Bhopal | 64.3% |

## Real time Projects

**Cloud integrated Turbidity measurement using ADICUP360**
**Participation as:** Complete product Developer in TesnaTech P. Ltd., Mumbai
**Description:** The solution given measures the Turbidity of the solution using a microcontroller-based measurement unit with WiFi connectivity to the IBM Cloud. The user can easily see the readings either via Smart phone App or through a Web Application.

Asset Tracking Project **for CYIENT Ltd Hyderabad**

**Participation as:** Team Member
**Role:** Only familiar with Conceptual outline of the project with the algorithm
**Description**: With the beacon capability of ESP32 to scan the presence of other beacons

**Real time data monitoring in Trucks and containers using GSM/GPRS (2G/3G)** at
(It is 3 years old but good project of May-2017 when I was in Axelta Hyderabad)
**Client**: Best Cold Chain
**Role**: Appn programmer in the ATMega328P microcontroller on Arduino UNO devpt  board
**Description**: We have given a solid solution to prevent false claim done by Best Cold Chain clients by giving real time monitoring of Temp, Humidity, Battery Power,Light intensity and Magnetic Reed switch status.

**Smart Atendance Systems with integration to IBM Cloud Client SS Associates Chennai**
**Participation as :** Individual contributor
**Role**: Application Program for the Attendance Module.
**Description** : Authorization access with RFID Cards using MFRC522 with local storade in SD Card and pushing the same information to IBM Cloud

**Battery Management System for Penna Cement Ltd**
Role: Firmware Development
**Description**: Module shows Battery Status, Charging time ; Discharging time on Computer Alarm on 10% at the sight

**Home Automation Using IBM Cognitive Services**

**Description**: Monitoring parameters like illumination and temperature and controlling appliances in home using IBM Watson Assistant and Node-red Application.

## 2.5 yrs as Sr. Executive (BD) for VIN SemiCondctors Pvt. Ltd, MUMBAI

Energy Audit & replacement of Conventional Lights by L.E.D. Lights (Domestic, Commercial & Industrial Lights including Solar range.

### 1.2 yrs Exposure for "ABB Automation" @ Digital Marketing Systems Pvt. Ltd , Indore

AC VFD             : Scalar , Vector and  DTC (Direct Torque Control)
DC Drive          : Digital DC Drives
Temp.               : Sensors & Transmitters
Flow                  : Magnetic, Vortex, Coroilis, DP , Wedge
Level                 : Ultrasonic, Differential Pressure
Control Room   : Indicators, Relay based Controllers, & PIDs

### 1.5 yrs. Experience at Scientech (Nvis) Technologies, Indore (MP)

1) Installation & Working of  DSP Trainer kits .8051, PIC, AVR & ARM7 kits.
2) Trainers of CRO, F.G. , VNA,Microwave & MIC ; Optical Fibre & Antenna & EM Waves

### Pragmatic Embedded Solutions, Bangalore

1.8 years' experience as Embedded Engineer in

1) MicroControllers 8051, ARM-7 (LPC-2148), PIC, AVR  in harwares/ devices

2) Systems Designing & Digital Signal Processing using MATLAB / Simulink

RF comm (Zigbee) ; IR based ; Home Automation & Security ; Sensors & Keypad/ LCD interfacing ; Serial Comm. Protocols : UART ,I2C , SPI (Educational projects)

### Additional  training Certificates during B.E.

- **Universal Informatics, Indore (MP)** : Core Java, Advanced Java
- **HCIL, Gurgaon ( Hughes Communications India Ltd)** :
  Advanced Networking & Routing Configuration of CISCO Routers

- **Digitech Solutions** :Designing of Electronic CKT through Verilog (Synthesis)
- **Scientech Technologies , Indore**: Industrial Training for Electronics & Comm.
- **B.S.N.L.. Khargone (M.P.):** Training of Working System of Telephone Exchange
- **Excel Computers Khargone :**Hardware & Networking
- **Society for Electronics & Computer Technology, Bhopal :** Programming in BASIC; Word Processing ; Disc Operating System

**Tapan Shrimali, Mumbai**