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| **EDUCATIONAL QUALIFICATION** | | | |
| **Year** | **Degree** | **Institution/ School** | **Performance** |
| 2018 | B.E (Electronics and Communication Eng.) | J.S.S Academy of Technical Education Bangalore | 67.5% |
| 2015 | Diploma(Electronics and Communication Eng.) | B.V.V.S Polytechnic Bagalkot | 77.44% |
| 2012 | Class X | S.S.S.B.V.V.S Hi-School Halingali | 82.72% |

**PROFESSIONAL TRAINING**

* **Advance VLSI Design and Verification training.** [May’22 - Present]

Maven Silicon Bangalore.

* **Embedded Systems Trainee**. [Sep’18 – May’19]

Cranes varsity a Training Division of Cranes Software International Ltd Bangalore.

**PROFESSIONAL SKILLS**

UVM | SV | SVA | OOPS Concept | Verilog | STA | Digital Electronics | Perl | C.

**TOOLS**

Git | Questasim | Modelsim | SimVission | Quartus Prime | EDA Playground | GVIM | Linux.

**PROFESSIONAL EXPERIENCE**

**Senior Embedded Engineer, M.S Technology Bangalore** [July’19 - Dec’22]

Provides solutions and innovation for Energy Management and communication.

**Achievements/Tasks:**

• To Design, Develop, Implement and test the Embedded Software and Hardware.

• Strong knowledge of communication protocol **UART**, **I2C**, **RS232**, **RS485**, **SPI**

• Designed and developed the electronic zig for testing of PCB.

**Tool Expertise**: **Atollic** | **Arduino** | **ESP-IDF** | **Code Compos Studio** | **Altium** | **Ki cad** | **OrCad**.

**EXTRA SKILLS**

* Good Knowledge SOC flow.
* Knowledge on AHB Lite Protocall.
* Awre of UART, SPI, RTC Internal registers.

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| **PROJECTS** |

## APB VIP Verification Using UVM:

* APB is designed for low bandwidth control accesses, for example peripheral interfaces on system. This bus has an address and data phase but a much reduced, low complexity signal list. Furthermore, it is an interface designed for a low frequency system with a low bit width (32 bits)
* AMBA-APB protocol specification.
* Created Verification Plan.
* Created Verification Environment using UVM Methodology
* Worked on Write & Read Sequence, Driver, Monitor, Scoreboard
* Performed read and write operations with and without wait states. Also, Slave Error Situation.

## UART IP Veriﬁcation: [Mar’23 - Apr’23]

* The UART IP core provides serial communication capabilities, which allows communication with modem or other external devices.
* Implemented an Baudrate generation block.

## Veriﬁcation:

* Verified the design using UVM TB Architecture blocks i.e. Agents, Environment and Tests in QuestaSim.
* Verified the UART packet of 5,6,7,8bits. Prity and Different baudrate also verified using UVM TB.
* Verified the RTL module using Verilog TB.

## Router 1x3 Design and Veriﬁcation: [Jan’23 - Feb’23]

* The router accepts data packets on a single 8-bit port and routes them to one of the three output channels - channel0, channel1, and channel2.It's a 3-layered network device as per the OSI reference model of the network.
* Implemented various submodules i.e. FSM, FIFO, Register and Synchronizer using Verilog HDL.
* Implemented the Synthesizable design circuit using Quartus Prime.

## Veriﬁcation:

* Verified the design using UVM TB Architecture blocks i.e. Agents, Environment and Tests in QuestaSim.
* Connected the design and verification environment using interface and virtual interface.

## RAM Verification Project: [Feb’23 - Mar’23]

* Designed and Verified 16x8 synchronous dual port RAM memory and single RAM Memory. The Memory model is capable of storing and retrieving 16bits of data as per address location.
* Perform write to any memory location, read from the same memory location, read data should be the same as written data
* Assert reset in between write/read operation and check for default values.
* Verified the design using functional coverage by defining covergroups and coverpoints.

## Energy Meter Reading Using Wi-Fi and BLE: [Aug’19 - Aug’21]

* Designed and Developed an end node to communicate with the meter using UART and then send the data to the Gateway through

Wi-Fi or BLE.

* Gateway uses the 4G / 2G module to communicate with headend system.

## GAS and Water Meter: [Sep’21 - Mar’22]

* This project used to collect the water meter data and Gas meter in Real time.
* In this project we read GAS and Water Meter data using LC sensor or Reed switch. And send the data using the RS485 protocol.

## Smart Lock Dual Authentication: [Jan’18 - Mar’18]

* This project aims to enhance system securities.
* We used RFID to unlock the system and 4-digit Password for the next step authentication.

# HOBBIES

Cricket **I** Kabaddi **I** Cooking

**LANGUAGES**

Kannada **I** English **I** Hindi **I** Telugu.

**DECLARATION**

I, hereby declare that the information furnished above is correct to the best of my knowledge.

Date:

Place: Bangalore [Bharamu S K]