



# Revanth Sai Nandamuri

Hyderabad, Telangana

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**Objective:** Responsible and ambitious student with excellent time management, seeking to apply my technical skills in the field of VLSI and Embedded Systems. Possess proven communication skills, technical expertise and strong work ethics.

## Educational Qualifications

Class	Institute	Board/University	Marks/ CGPA
10th Std	P. Obul Reddy Public School, Hyderabad(TS)	CBSE	8.0 CGPA
12 <sup>th</sup> Std	VelocIITy Jr College, Hyderabad (TS)	State Board of Intermediate Education, Telangana	756/1000
B. Tech (Studying)	Vellore Institute of Technology, Amaravati (AP) - 500049	VIT UNIVERSITY-AP	*8.41 CGPA

\*Up to 6<sup>th</sup> semester.

## SKILLS:

- ✓ **Hardware Descriptive Languages** : Verilog, SystemVerilog
- ✓ **Methodologies** : Universal Verification Methodology (UVM)
- ✓ **Operating Systems** : Windows, Ubuntu, Kali, Parrot OS
- ✓ **Embedded Programming** : Embedded C, Python(Raspberry pi), LPC1728, LPC2148
- ✓ **Programming Languages** : C, Python
- ✓ **Embedded Systems** : Arduino, NodeMCU, Raspberry Pi
- ✓ **Editors/Tools** : Arduino IDE, LabVIEW, VSCode, Xilinx Vivado, ModelSim, QuestaSim, Kiel

## Workshop/Trainings Attended:

- **Advanced Optimization Techniques** and Hands-on with MATLAB conducted by Ministry of Electronics & Information Technology through MNIT, Jaipur.
- Achieved Certificate in **Python Data Structures** from University of Michigan.
- Achieved Certificate in **Embedded Hardware and Operating Systems** from EIT Digital.
- Achieved Certificate in **Introduction to FPGA Design for Embedded Systems** from University of Colorado
- Successfully completed 8 weeks training on "**Advanced digital design using Verilog**" from LUCID VLSI.
- Successfully Completed training on "**System Verilog and Universal Verification Methodology**" from LUCIDVLSI.

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## Academic Projects

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1. **Agni-PATH** (2018)
  - **Domain:** Embedded Systems
  - **Description:** This project is based on its auto-sensing capability, by the use of various sensors positioned at specified positions, it can detect fire and navigate in the direction and when it reaches near fire it puts off the flame by spraying water in that direction.
2. **HOME+** (2019)
  - **Domain:** IoT & Programming in Raspberry pi
  - **Description:** Developed for Controlling Home Electrical Utilities using Mobile application. This is developed by interfacing utility switches with Raspberry pi, which is programmed in Embedded Python Language.
3. **HOME+ 2.0** (2020)
  - **Domain:** IoT & Embedded Systems
  - **Description:** A better version of **HOME+** which is developed for Controlling Electrical Utilities using BLYNK. This is developed by interfacing utility switches with BLYNK via NodeMCU, which is programmed in Embedded C Language.
4. **HOME+ 3.0** (2021)
  - **Domain:** IoT & Embedded Systems
  - **Description:** A better and upgraded version of **HOME+ 2.0** which is developed for Controlling Domestic Electrical Utilities using ALEXA. This is developed by interfacing utility switches with ALEXA via NodeMCU, which is programmed in Embedded C Language.
5. **Class Attending bot using Python** (2021)
  - **Domain:** Python
  - **Description:** Developed a bot Using Python that attends the Online classes in the Microsoft Teams Platform As per Users' schedule at pinpointed time, to reduce the issue of not been able to attend on time.

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## SystemVerilog and UVM Projects:

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### 1. Development of SystemVerilog and UVM of verification environment for Memory model

(2021)

- **Domain:** SystemVerilog and UVM
- **Description:** Developed SV and UVM Verification Environment for Synchronous read/write Memory model.
  - Developed **Master and Slave Agents**
  - Developed **Slave Sequencer, driver, and monitor.**
  - Developed **Out-Of-Order scoreboard.**
  - Developed **Functional Coverage component.**
  - Developed **Callbacks to implement error injection mechanism.**
  - Developed **RAL Environment to configure CSR's.**
  - Developed **backdoor RAL classes to configure CSR's.**
  - Developed **master Sequences with Test Cases.**
  - Developed **Slave sequence.**
  - Created Test Plan and implemented Test Cases.
  - Running/Debugging Test Cases.

### 2. Development of SystemVerilog and UVM of verification environment for Router 4x4 Design

(2021)

- **Domain:** SystemVerilog and UVM
- **Description:** Developed SV and UVM Verification Environment for Router 4x4 DUT.
  - Developed **Master and Slave Agents.**
  - Developed **Out-Of-Order scoreboard.**
  - Developed **Functional Coverage component.**
  - Developed **Callbacks to implement error injection mechanism.**
  - Developed **RAL Environment to configure CSR's.**
  - Developed **backdoor RAL classes to configure CSR's.**
  - Developed **Sequences and Test Cases.**
  - Created Test Plan and implemented Test Cases.
  - Running/Debugging Test Cases

### 3. Development of UVM of verification environment for ALU Design

(2021)

- **Domain:** UVM
- **Description:** Developed UVM Verification Environment for ALU DUT.
  - Developed **Master and Slave Agents.**
  - Developed **DPI-C reference model.**
  - Developed **Predictor component with DPI reference model.**
  - Developed **In-Order scoreboard.**
  - Developed **Functional Coverage component.**
  - Developed **Sequences and Test Cases.**
  - Created Test Plan and implemented Test Cases.
  - Running/Debugging Test Cases.

## INNOVATIONS & ACHIEVEMENTS:

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- Self-initiated idea titled "**Portable UV-C Sanitizer**" has been accepted and published as an **Indian Patent** with an application number **202041033151**.
- Self-initiated idea titled "**Smart Electrical Measurement System**" has been accepted and published as an **Indian Patent** with an application number **202141026739**.
- Self-initiated idea titled "**Multimeter on Gloves**" has been accepted and published as an **Indian Patent** with an application number **202141030637**.
- Secured **3rd place**, in ARM wrestling competition of coding on **LPC2148**, target achieved in **6 Hour**

## Areas of interest:

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- ❖ Design Verification
- ❖ Home Automation
- ❖ Microcontroller And Interfacing
- ❖ Interfacing With Raspberry Pi.

## Subject of interest:

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- ❖ Embedded Programming
- ❖ HDL-Verification
- ❖ Machine Learning

## Personal Attires:

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<ul style="list-style-type: none"><li>• <b>Strengths</b><ul style="list-style-type: none"><li>✓ Adaptability</li><li>✓ Self-learner</li><li>✓ Leadership skills</li><li>✓ Reverse Engineering</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Hobbies</b><ul style="list-style-type: none"><li>✓ Watching Football</li><li>✓ Playing Football</li><li>✓ Experimenting new cuisine</li><li>✓ Making Daily routine efficient</li></ul></li></ul>
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## Personal Details:

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| 1. Father's Name   | : Nandamuri Prasad   |
| 2. Date of Birth   | : 12 <sup>th</sup> June 2000   |
| 3. Languages Known | : English, Hindi & Telugu.   |
| 4. Address         | : Flat no.-305, Block<br>No:01, SMR Vinay Fountain Head,<br>Near Calvery Temple, HyderNagar,<br><b><u>Hyderabad – 500049</u></b> |

## Declaration

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

**Place: Hyderabad, India.**

**Date: 1<sup>st</sup> October 2021**

**Revanth Sai Nandamuri**