SHIVAM AGARWAL

ACADEMIC PROFILE

Degree/Certificate	Institution	Percentage/CGPA	Year
B-Tech	Electronic Engineering IIT (BHU), Varanasi	9.14	2021

Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Sem VII	Sem VIII
9.61	9.03	8.58	9.55	8.78	9.53	-	-

Degree/Certificate	Institution	Percentage/CGPA	Year
Shivam Agrawal (XII)	S.J.Public School	93.60	2016
Shivam Agrawal (X)	SJ. Public School	89.30	2014

SKILLS

Skills and Interests

Languages: Verilog, VHDL, C, C++, Python
Technologies: Proteus, OpenCV, Vivado, MATLAB, Tina-TI
Areas of Interests: Data Structures, Algorithms, Computer Architecture, Digital Circuit Design, Image Processing, Computer Vision

INTERNSHIP/TRAINING

Summer Internship, Texas Instruments Bangalore
May 2020 - July 2020

Scan Time Reduction using DDR Memory on Sparrow Board.

- Designed and Implemented **Scan Process Architecture** for Shift Test and Capture Test
- Worked on ILA to carry out debugging for the DDR Memory related issues
- Designed and Implemented **Scan Check** block on the FPGA for better efficiency
- Generated a python script for proper Data mapping and improving the flexibility of the design

PROJECTS

FPGA Implementation of UART
June 2019 - July 2019

- Implemented a **UART** based communication interface between Computer and FPGA
- Representing Binary Numbers using LEDs and reading the Button and Switch's status on FPGA using Tera Term

Image Compression using Huffman Coding
Feb 2020

- Designed a **C++ program** and linked it with MATLAB for Modulating a greyscale image and then Demodulating it using **Huffman Algorithm**

Hardware Implementation of Tetris Game
April 2020

- Implemented 10x8 Tetris Game circuit with left and right shift features for the falling blocks using simulation software Proteus

CERTIFIED COURSES

Online Courses

- Fundamentals of VHDL and FPGA Development on Udemy with a Mini Project based on Controlling LED Brightness on FPGA using PWM technique
- MATLAB Beginners Course on Coursera and applying Image Processing techniques using it

POSITION OF RESPONSIBILITY

Event Coordinator of Digisim (Digital Electronics Event) UDYAM'20

- Conducted 4 workshops and **Digital Electronics** event with 90+ participants

HONOURS AND ACHIEVEMENTS

Sports

- Winner at Rajasthan State Level Volleyball championship held at Bhilwara, 2014
- Runner up in District level Volleybal Tournament, 2014
- Selected for State Level Volleyball Championship Thrice

Dance

- Secured 1st position in Group Dance in Kashiyatra'19 and 2nd position in Kashiyatra'20 (IIT BHU)
- Winner in Group Dance Competition at Anwesha'19 (IIT Patna)
- Participated in Inter IIT Cultural Meet'18 and Inter IIT Cultural Meet'19 held at IIT Roorkee and IIT Bombay respectively

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