



# Muhammad Ramzan

Electrical Engineer

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Shakargarh, Narowal Punjab, Pakistan

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I am a passionate Electrical Engineering graduate eager to embark on a career in Hardware Design and Verification hands on experience of hardware like FPGA. I have a strong understanding of SoC design and its deployment on FPGA, ASIC implementation and RISC-V architecture and I am driven to translate theoretical knowledge into practical applications, contributing effectively and innovatively to cutting-edge projects.

## EDUCATION

### BS Electrical Engineering Namal University Mianwali

11/2021 - Present

#### Courses

- Computer Architecture
- Digital Logic Design
- Digital System Design
- Embedded System
- Power Electronics
- Internet of Things
- Electronic Devices and Circuits
- Control Systems

### FSc Pre-Engineering

The Educators Higher Secondary School

07/2018 - 06/2020

Shakargarh

## PERSONAL PROJECTS

### Development of a RISC-V Based SoC Architecture Using Open-Source Tools for FPGA Technology (09/2024 - Present)

- Our aim is to create a cost-effective SoC using an open-source tools, making it easier and more affordable to design and customize.

### RISC-V Single Cycle and Pipelined Processor Design (11/2024 - Present)

- From single cycle to pipelined processor with forwarding and hazard detection logic

### 4-bit ALU Design and Hardware Implementation (11/2022 - 03/2023)

- I designed and implemented a 4-bit Arithmetic Logic Unit (ALU) capable of performing basic arithmetic and logical operations such as addition, subtraction, AND, OR, and XOR

### Line following Robotic car (2023 - 2023)

- A Robotic car formulated that follows line, detect objects around it and hit them.

### DC Motor Speed Control (2023 - 2023)

- Performed the speed control mechanism for DC Motor using external resistor mechanism.

## VOLUNTEER WORK

### Vice President

NSSI(Namal Society For Social Impact)

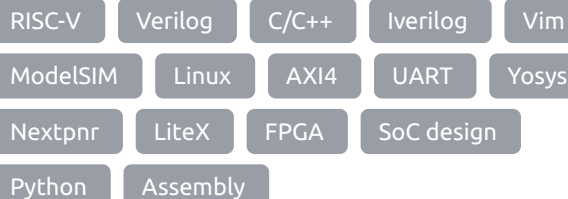
2023 - 2024

### Treasure Head

SDS

03/2024 - 09/2024

## SKILLS



## ORGANIZATIONS

Skills Development Society

NSSI (Namal Society for Social Impact)

Scholar Bridge Society (Namal Student Chapter)

## LANGUAGES

Urdu

Native or Bilingual Proficiency

English

Full Professional Proficiency

Punjabi

Native or Bilingual Proficiency

## INTERESTS

Hardware Design

SoC

FPGA

RISCV

LiteX