

# Bhumika KR

SOFTWARE DEVELOPER

## PROJECTS

Worshops

### VLSI Design Project

1. To gain practical VLSI knowledge using EDA tools like Cadence and Xilinx.
2. Performed schematic to layout conversion and physical design steps.
3. Conducted timing analysis and Verilog coding for FPGA design.
4. Implemented simulation and synthesis.
5. Verified functionality and generated gate-level netlists to validate circuit performance.

### Additive Manufacturing Designing and Industry 4.0

1. Additive manufacturing (3D printing) creates complex designs layer by layer, transforming production.
2. Industry 4.0 integrates automation, digital technologies, and data exchange in manufacturing.
3. Together, they improve efficiency, customization, and innovation.
4. Tools like Fusion360 enhance design processes.
5. AI applications further optimize industrial operations.

### Embedded system, machine learning and IOT

1. Designed and implemented IoT-based embedded systems using Arduino and ESP32 for real-time monitoring and control.
2. Integrated sensors for temperature, water, and LED testing.
3. Applied basic machine learning with Edge Learn tools.
4. Improved system efficiency through machine learning.
5. Conducted tests to ensure accurate and reliable performance.

### Raspberry Pi

1. Designed and implemented IoT-based embedded systems using Raspberry Pi for real-time monitoring and control.
2. Developed the project using Raspberry Pi OS and programming languages.
3. Optimized the system design for improved efficiency.
4. Conducted tests and experiments to validate functionality.
5. Ensured accurate and reliable project performance.

### Strategy formulation and data visualization

1. Data science extracts insights from structured and unstructured data.
2. Types of analytics include descriptive, predictive, and prescriptive.
3. Data visualization presents data graphically for clearer understanding.
4. Data science aids in business strategy formulation and decision-making.
5. A clear vision and mission guide its application across industries

## EDUCATION

Nitte Meenakshi Institution of Technology Nov 2022 - Nov 2026

B-Tech |Electronics and communication | 7.6

GPA

NMIT, Visvesvaraya Technology University

PU | PCMC | 60 %  
Percentage

Chethana PU College, State Board

Class X | 88 %  
Percentage

Soundarya Central School,  
CBSE

## SKILLS

Electronics : VLSI design system, embedded system and IOT

Programing skills : C, Basics of Java, python

Web development skills: Html, CSS, SQL

## CONTACT

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## CERTIFICATES

Additive Manufacturing Designing and Industry 4.0

RINEX Entrepreneurship Cell

Centre for Outreach and Digital Education

Indian Institute of Technology, Madras

"Strategy Formulation and Data Visualization"

Blood donation certificate

VLSI Design system

Embedded system, machine learning and IOT

IOT and raspberry Pi

Learntube by CareerNinja

NXTWAVE

Japan Zenken volunteer