# Sujan Poudel

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## Summary

Dynamic Electrical and Electronics Engineer specializing in Communication Engineering with a Bachelor's degree from Kathmandu University, Nepal, boasting a stellar CGPA of 3.77. Currently serving as an Electrical and Electronics (Communication) Engineer at Kathmandu University, where I actively contribute to the enhancement of academic experiences by assisting faculty members, revitalizing departmental laboratories, and guiding students in their projects. Adept in troubleshooting and configuring broadcast systems, demonstrated during an internship at Dish Media Pvt. Ltd. Skilled instructor and event head at the Society of Electrical and Electronics Engineer (SEEE), Kathmandu University, leading initiatives such as Raspberry Pi training and organizing hackathons. Recognized for academic excellence with awards including direct enrollment in the KU Employment Promotion Program and multiple scholarships. Proficient in Wireless Communication, Data Communication, Signal Processing, and adept at managing various laboratory tasks and equipment.

# **Education**

2018 – 2023 – Kathmandu University Electrical and Electronics Engineering, Dhulikhel, Nepal

Bachelor of Electrical and Electronics Engineering (Specializing in Electronics and Communication Engineering).

CGPA: 3.77/4 (92%) - Rank 1

Coursework: Object Oriented Programming with lab works, Analog and Digital Electronics with lab works, Analog and Digital Signal Processing with lab works, Computer Architecture & Organization, Microprocessor and Measurement & Instrumentation with lab works, Antenna and Propagation with lab works, Neural Network and Fuzzy Logic with mini-project, Communication Engineering I & II with lab works, Wireless Communication, Satellite Communication and Broadcasting, and Engineering Project I, II, III, and IV and more on courses section.

2016 – 2018 – Oxford Secondary School, Nawalpur, Nepal

Secondary Education, National Examinations Board (NEB). (Science)

CGPA: 3.63

Coursework: Physics I & II, Chemistry I & II, Mathematics, Computer Science, English

2003 – 2015 – Viddhya Jyoti English Boarding School, Chitwan, Nepal

Secondary Education, School Leaving Certification (SLC)

# **Work Experience**

Department of Electrical and Electronics Engineering, Kathmandu University (August 2023-Present)

#### **Electrical and Electronics (Communication) Engineer**

Major Responsibilities

- Assisting faculty members in the preparation of laboratory manuals and the facilitation of academic laboratory sessions.
- Organizing and revitalizing the existing departmental laboratory, overseeing equipment repairs, and making recommendations for necessary equipment acquisitions to support academic activities.
- Collaborating with faculty members to operate various systems and test equipment within the department.
- Guiding students in their academic projects and assisting with laboratory tasks related to their coursework.

#### Winter 2023 -- Technical Operation Center, Dish Media Pvt. Ltd., Nepal

#### **Broadcast Intern**

- Monitoring and troubleshooting the issue in DTH Headend
- Monitoring and troubleshooting the issue of IPTV
- Configuring IRD/PIRD, Data Video Decoder, AGC of Headend

# **Others Experience**

# Summer 2022 – Raspberry Pi Instructor – Society of Electrical and Electronic Engineer (SEEE), Kathmandu University

2 Days Raspberry Pi training to Undergraduate students of all levels at Kathmandu University

- Raspberry Pi setup and remote access
- Web server installation and setup
- Other: Use of GPIO, Server, and create mini project.

## Fall 2022 - Technical Event Head - Society of Electrical and Electronic Engineer (SEEE), Kathmandu University

Handling technology-related events like Hackathon, Online Circuit Competition, and Electronic Training Workshops.

- Event Management and Supervision
- Workshop trainer
- Other: Event Planning, technical support.

#### 2018 – 2023 – General Member – Kathmandu University Robotics Club

Leading and Handling projects.

- Study, design, and testing of radio telescope.
- Remote control car design
- Other: Project Supervisions.

# **Projects**

#### 2022 - 2023 - GFSK modulation and demodulation of Sanosat-1, Fourth Year Academic Project, Kathmandu University

-This system involves the study of modulation and demodulation scheme used by Sanosat-1, a CubeSat launched by Orion Space. It involves why GFSK scheme is better choice over other scheme. And there is replication of the scheme in GNU Radio to study different digital communication parameters.

2020 - 2022 - Solid waste monitoring system, Third Year Academic Project, Kathmandu University

-The system monitors trash levels with ultrasonic sensors and sends data wirelessly to a central server. Waste authorities can access the information via a web interface to improve garbage collection efficiency.

2019 - 2022 - Smart dustbin for physically disabled people, Second Year Academic Project, Kathmandu University

-The design is for a smart waste container that uses a servo motor and IR sensor to detect users and open the lid, with the aim of assisting physically disabled users. The dustbin can be remote operated for waste disposal by RF transmitter and receiver with encoder and decoder.

Spring 2019 - Automated Multilevel Room Temperature Control System, First Year Academic Project, Kathmandu University

-Design a circuit to control fan state and speed based on room temperature using LM35 (temperature sensor) a comparator circuit and a motor driver, with a customized reference level.

# **Awards and Achievements**

- Direct Enrollment from KU Employment Promotion Program for a year (Securing highest grade in the batch of 2018 at the Department of Electrical and Electronics Engineering, Kathmandu University).
- Academic Scholarship for semester I, II and IV at Kathmandu University, Nepal.
- Scholarship for Intermediate Science at Oxford Secondary School, Nawalpur, Nepal.

# **Skills**

## **Programming**

C++ / C / Embedded C/ Python / Managing Databases (MySQL) / Linux (OS)

### Electronics & Simulation

PCB design (Eagle - KiCAD) / Opti system / GNU Radio / Cisco - Packet tracer / Remote Support Tools / Proteus/Multisim / Raspberry Pi / MATLAB/Simulink / Wireshark / Arduino / NS2 Simulator

## Presentation & Writing

Public-Speaking / Microsoft Azure, Microsoft 365 / Presentation Techniques and Teamwork / Academic and Technical Writing

# **Relevant Courses** – Undergraduate – Kathmandu University

Object Oriented Programming [COMP-116]/ Digital Logic [EEEG 202]/ Computer Organization and Architecture [COMP 201]/ Microprocessor [EEEG 314]/ Analog and Digital Signal Processing [EEEG 313/ 305]/ Communication System Engineering [ETEG 320]/ Data Communication Networks [ETEG 303]/ Antenna and Propagation [ETEG 402]/ Optical Fiber Communications [ETEG 422]/ Neural Network and Fuzzy Logic [ETEG 425]/ Satellite Communication and Broadcasting [ETEG 427]/ Wireless Communications [ETEG 432], Engineering Projects I, II, III & IV.

# Recommendations

Head of Department – Kathmandu University

Name: Ram Kaji Budhathoki, PhD

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Professor - Kathmandu University

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Assistant Professor - Kathmandu University

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