

# Seemron Neupane

Electronics & Communication Engineer

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## Education

**Bachelor of Engineering in Electronics, Information and Communication**

Tribhuvan University

**Pokhara, Nepal**

May 2025

**Relevant Coursework:** Data Structures, Algorithm Design, Artificial Intelligence, Database Management, Big Data, Computer Architecture, Advanced Calculus, Analog and Digital Signal Processing, Wireless, Radio Frequency and Microwaves, Telecommunication, Antenna and Parameters

## Experience

**Test Engineer**

OPPO India Pvt. Ltd.

**Kathmandu, Nepal**

November 2025 – Present

- Use log and debug tools such as QXDM and MTK Logger to capture system logs and analyze software issues in unreleased devices.
- Conduct full functional testing of new smartphone models, including camera, Bluetooth, Wi-Fi, GPS, fingerprint, face unlock, sensors, speakers, and charging systems.
- Perform network behavior testing for 4G/5G, checking VoLTE/VoWiFi registration, call setup success, call drops, and handover stability.
- Test Android OS upgrades and OTA packages by flashing new builds, validating feature stability, checking for app crashes, heating issues, battery drain, and performance regressions.
- Execute stress and stability tests such as long-duration calls, repeated reboot cycles, multitasking pressure tests, and overnight data usage checks to ensure system reliability.
- Record and report issues using bug tracking platforms, providing clear reproduction steps, logs, screenshots, and analysis for developers.
- Validate fixes in updated builds by re-testing the same scenarios across different environments and confirming issue resolution.
- Coordinate with R&D, software teams, and field testers to ensure smooth performance and readiness of the device before launch.

**Radio Frequency Analyst and Drive Test Engineer**

Huawei Technologies Nepal Co. Pvt. Ltd.

**Kathmandu, Nepal**

May 2025 – October 2025

- Perform RF optimization for GSM, WCDMA, and 4G networks through drive test analysis, KPI monitoring, and trend evaluation.
- Analyze network performance to identify and troubleshoot coverage gaps, interference, and call drop issues.
- Recommend and implement parameter tuning to enhance CSSR, DCR, throughput, and overall QoS.
- Utilize Genex Probe, Google Earth Pro, and Huawei internal analytics tools for detailed reporting and visualization.
- Performed field testing at Huawei using TEMS Pocket under NTA guidelines, covering MOS evaluation, idle mode testing, DL/UL throughput measurement, and Ookla-based speed verification.
- Collaborate closely with network planning and field teams to optimize network performance and elevate user experience.
- Learning 4G/5G feature rollouts by analyzing traffic patterns and proposing parameter adjustments.

**Electronics Engineer Intern**

Yarsha Tech Pvt. Ltd.

**Kathmandu, Nepal**

June 2024 – August 2024

- Worked on embedded system development, integrating hardware and software solutions.
- Gained hands-on experience with microcontrollers, sensors, and communication protocols.
- Developed and tested firmware for embedded applications.
- Collaborated with a team to troubleshoot and optimize system performance.

## Projects

### Remote Electrocardiogram Monitoring System

[Link to project](#)

- Developed a remote ECG monitoring system using the AD8232 ECG sensor and ESP32 microcontroller.
- Integrated electrodes and microcontroller for accurate physiological signal acquisition.
- Programmed the ESP32 for real-time ECG data acquisition and transmission over Wi-Fi to a cloud server.
- Designed and implemented the backend logic to receive, process, and visualize ECG data remotely.
- Designed REST APIs to enable secure data transmission and real-time visualization of ECG readings.

### Automatic Bus Fare Deduction System

[Link to project](#)

- Developed an automated bus fare deduction system using RFID, Arduino, and GPS, utilizing I2C communication.
- Integrated a GPS module to track distance traveled and determine the fare accordingly.
- Implemented RFID-based passenger identification and GPS tracking to calculate dynamic fares between bus stops.
- Designed and implemented a Django-based backend to manage user data, fare transactions, and route tracking.
- Built a mobile application using Flutter to allow passengers to view buses and fare details in real time.

### Airlines Management System

[Link to project](#)

- Developed a database-driven application to manage airline operations including flights, bookings, passengers, and schedules.
- Designed normalized relational schemas using SQL with proper use of primary and foreign keys to maintain data integrity.
- Utilized PHP's Tinker to test and interact with backend models and relationships during development.
- Optimized SQL queries for efficiency and scalability.

## Technical Skills

**Languages:** Python, C/C++, SQL, HTML, CSS, Java

**Developer Tools:** Git/GitHub, Postman, Genex Probe, Genex Assistant, Google Earth Pro, VS Code, MATLAB, KiCad, Proteus, Flash Tool, OTA Test Tool

## Participation

### Shequal Hackathon 2024 — Nepal's Largest All-Female Hackathon

Selected and participated with teammates, developing an IoT system integrated with a mobile application and cloud backend. The event was a three-day closed camp, and our team secured 6th place out of 20 teams from across Nepal.