

TANISHQ BHAIJI

Electrical & Electronic Engineering Student

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Slochterenweg 2A, 6835 CB, Arnhem · Netherlands

PROFILE

Electrical & Electronic Engineering student with hands-on experience spanning power electronics, embedded hardware, renewable energy, and power systems design: PCB design and component selection, battery diagnostics, solar PV/BESS installation, and MV/LV electrical design against IEC standards. Have led multidisciplinary teams from requirements through simulation (MATLAB, LTspice) to delivered, tested hardware and installed systems. Looking for a graduation internship from February 2027, ideally in power electronics, renewable energy, or power systems.

PROFESSIONAL EXPERIENCE

Team Lead – Overhead EV Charging Control System

Feb 2026 – Jul 2026

Milence (client project) · HAN University of Applied Sciences

- Led a team of 7 to design the hardware control system for Milence's overhead EV truck charging cable retraction, selecting a worm gearmotor and RS-485 motor controller sized to retract a 34 kg, 10 m cable within 30 s at 2x torque margin.
- Delivered a complete EasyEDA schematic and PCB integrating an ESP32 controller, dual isolated RS-485 Modbus channels, and battery-backed power supply with full simulation-verified validation.

Electrical Engineering Intern

Sep 2025 – Jan 2026

Battery Testing Tool · Dott, Amsterdam · Grade: 10/10

- Cut per-battery test time from several minutes to under 15 seconds by designing a structured pass/fail testbench for battery management and health diagnostics, replacing ad-hoc field assessments.
- Accelerated hardware iteration by assessing multiple PCB design versions against electrical safety, manufacturability, and robustness criteria, turning findings into recommendations adopted by the team.

Project Intern – Autonomous Power Steering

Feb 2025 – Jul 2025

MORE Vehicle · HAN University of Applied Sciences

- Led a team of 4 to design and validate a high-current H-Bridge PCB (50 A continuous, 80 A peak) achieving 97% efficiency, evaluating 5 MOSFET candidates and integrating thermal protection to prevent overheating under sustained load.

Project Lead – Sustainable Office Services

Sep 2024 – Jan 2025

Royal Haskoning DHV

- Delivered a 2 MW MV/LV electrical system redesign for a 13,600 m² office building across 5 floors, leading load analysis and equipment selection in compliance with IEC 60364.
- Selected and specified the MV switchgear (20 kV vacuum circuit breaker, 125 A) and main transformer (2000 kVA, 20 kV/400 V, Dyn5), performing short-circuit calculations (IEC 60909).

Project Intern – Solar Power System Design and Installation

Jan 2023 – Mar 2023

Maadhyam Organics, India

- Designed and installed a 12.82 kWp rooftop solar PV system with 15.36 kWh LiFePO₄ battery storage and 18 kW hybrid inverters, independently handling system sizing, single-line diagram design, and on-site installation under an EPC model.

EDUCATION

Bachelor's in Electrical and Electronic Engineering

Aug 2023 – Jul 2027 (Expected)

HAN University of Applied Sciences

Senior Secondary School (CBSE) – Physics, Chemistry, Mathematics

Aug 2020 – Jul 2022

TECHNICAL SKILLS

Power Electronics & Hardware

- PCB design & layout (Altium Designer, EasyEDA)
- High-current power electronics & thermal management

Embedded Systems & Test

- Embedded firmware (C, FreeRTOS)
- Hardware testbench design & fault diagnosis

Renewable Energy & Power Systems

- Solar PV & BESS system design (PVSYST)
- MV/LV electrical design & IEC compliance (60364, 60909, 62439)

Simulation & Tools

- MATLAB/Simulink modelling & LTspice
- Industrial protocols (RS-485/Modbus, CAN, SPI, UART)

LANGUAGES

Hindi	Native
English	Native
Dutch	Beginner