

KRISHNA K.C.

Orono, ME 04473

+1 (207) 378-7905

kkrishnakc009@gmail.com

LinkedIn

Education

- **Master of Science in Electrical Engineering, GPA: 3.69** **Aug 2026**
University of Maine, Orono, ME,
Relevant Courses: Smart Grid, Power Electronics, Feedback Control Systems, PCB Design, Solar Cells & Applications, Cluster Computing, Numerical Methods, Stochastic Processes
- **Bachelor of Science in Electrical Engineering, GPA: 3.7** **May 2023**
Tribhuvan University, Kathmandu, Nepal
Relevant Courses: Power System Analysis I/II, Electric Machines I/II, Control Systems, Switchgear & Protection, Transmission & Distribution System Design, High Voltage Engineering, Hydropower, Micro-Hydro Power, Industrial Illumination and Distribution

Technical Skills

- **Programming:** Python, MATLAB, C/C++, R, Jupyter, L^AT_EX, PLC
- **Power Systems:** Load-flow analysis, protection coordination, and EMT analysis
- **Control Systems:** Feedback control, PID control, stability analysis, state-space modeling, and model predictive control
- **Software:** AutoCAD, Microsoft Office, Inkscape, Overleaf, Simulink, PSCAD, PSS/E, ETAP, and LTspice, RSlogix 5, Code Composer Studio, RT-Lab, Altium Designer, SAP, MATLAB

Work Experience

- **Electrical Engineer Intern** **May 2026 – Present**
ND Paper, Rumford, Maine
 - Modify and validate PLC logic using GE, ABB, and Allen-Bradley platforms to support production equipment, including motor protection settings
 - Configure industrial communication networks, including EtherNet/IP and Profibus, to support reliable process control and system integration
 - Inspect, maintain, and troubleshoot motor protection systems, Motor Control Centers (MCCs), Variable Frequency Drives (VFDs) rated up to 400Hp, and industrial drive systems to improve equipment reliability and minimize unplanned downtime
 - Produce AutoCAD schematics and wiring diagrams for mill distribution and drive systems supporting protection upgrades/equipment replacement
- **Graduate Research and Teaching Assistant** **Sep 2024 – May 2026**
University of Maine, Orono, Maine
 - Built and validated a real-time microgrid model using OPAL-RT and RT-LAB, integrating photovoltaic, wind, inverter-based, and conventional generation resources
 - Interfaced Raspberry Pi and OP8666 DSP Microcontroller to support closed-loop hardware-in-the-loop operation and real-time system identification under changing generation and loading conditions to evaluate voltage, frequency, and dynamic response
 - Developed and evaluated probing-signal and ARX-based identification methods to estimate dynamic transfer functions from inverter input-output measurements
 - Led weekly recitation sessions for PHY 121 and laboratory sessions for PHY 122, and provided individual tutoring through the Physics Learning Center
- **Electrical Engineer** **Aug 2023 – Jun 2024**
Noesis Engineering Solution Pvt. Ltd., Kathmandu, Nepal
 - Engineered earthing grids and lightning protection to **IEEE Std 80 / IEC 62305**; sized MV/LV cables against ampacity, voltage drop (< 3%), and short-circuit withstand
 - Designed **33/11 kV** substation layouts and single-line diagrams, cable schedules, equipment layouts, and technical reports for utility and industrial electrical projects
 - Performed transformer sizing, short-circuit analysis, and overcurrent-protection coordination, lightning protection, cable-sizing, and voltage-drop calculations for systems
- **Electrical Engineer Intern** **May 2023 – Jul 2023**
Noesis Engineering Solution Pvt. Ltd., Kathmandu, Nepal
 - Produced electrical designs for residential and commercial buildings, including load calculations, cable sizing, voltage-drop assessment, panel schedules, and single-line diagrams.
 - Assisted with site inspections, design revisions, project-cost estimates, progress reports, and technical recommendations for clients

Publication

- K. Pokharel, **K. K.C.**, D. Hummels, and H. Li, "Deep Reinforcement Learning-Based Current Control of Grid Following Inverters With Digital Real-Time Simulation," *Cyber-Physical Energy Systems* [Accepted]
- A. Parajuli, K. Bista, **K. K.C.**, and B. Bhandari, "An Adaptive Droop Control for Power Sharing Between Three-Phase Parallel Inverters in an Autonomous Microgrid," *KEC Journal of Science and Engineering*, vol. 8, no. 1, pp. 27–32, 2024, doi: 10.3126/kjse.v8i1.69261.

Project Experience

- **132 kV Double-Circuit Overhead Transmission-Line Design** **Jan 2023**
 - Designed a 132 kV double-circuit transmission line spanning 200 km, including conductor selection, sag-tension calculations, insulation coordination, and tower planning
 - Prepared technical and cost analyses while balancing structural safety, electrical performance, and capital cost
- **Building Illumination and Electrical Design** **Feb 2022**
 - Designed lighting and electrical layouts in AutoCAD using illumination, load, cable-sizing, and voltage-drop calculations
 - Selected electrical equipment and prepared a project cost estimate for a code-compliant building design

License and Certificate

- **Fundamentals of Engineering (FE) Exam, Electrical and Computer Engineering** **Mar 2026**
- **Electrical Engineer "A" Class License, Nepal Engineering Council** **Dec 2023**
- **Valid Maine Driver's License**