

# Sandesh Chhetri

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## EDUCATION

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### CQUniversity

*Master of Engineering (Electrical)*

**Graduation Jul. 2021**

*Rockhampton, QLD*

### Paschimanchal Campus, Institute of Engineering

*Bachelor of Engineering (Electronics and Communications)*

**Oct. 2014 – Nov. 2018**

*Pokhara, Nepal*

## WORK EXPERIENCE

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### Fitzroy River Water (Rockhampton Regional Council)

*Electrical Engineering Intern*

**Mar. 2021 – Jun. 2021**

*Rockhampton, QLD*

- Studied the cause and effects of bearing currents in inverter fed AC motors.
- Analysed submersible pumps SCADA data and developed an Excel tool to detect blockages.
- Reviewed and updated single-line diagrams of a sewage treatment plant.
- Configured and tested the routers for the new SCADA telemetry network.
- Developed strong understanding of practical electrical engineering concepts with respect to system analysis, design, and troubleshooting under the direction of Senior Engineer.

### CPL (Choice, Passion, Life)

*Direct Support Worker*

**Oct. 2020 – Present**

*Rockhampton, QLD*

- Prepares and facilitates computer learning classes for people with disabilities.

## PROJECTS

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### Long Haul Optical Fiber Network

- Implemented a long-distance fiber optic network in VPIphotonics Design Suite, including calculations for fiber optic attenuation, bit error rate, and power budget.

### Home Automation with PIC18F4321 Micro-controller

- Built a prototype home automation utilising the microcontroller, sensors and actuators.
- Analog to digital conversion and programming peripheral chips; learned the overview of microcontroller's architecture and used C and Assembly to interface different sensors and actuators.
- Learned about different communication protocols like UART, I2C, etc.
- Optimised existing 16\*2 character LCD module library for responsive interfacing with microcontroller.

### Load Frequency Control

- Found the Transfer Functions of Governor, Turbine, and Generator with provided data using System Identification tool in MATLAB.
- Designed and tuned a continuous PID controller and developed a discrete PID controller accordingly with bilinear transformation method.

## SKILLS & INTERESTS

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### Skills:

❖ C/C++

❖ MATLAB/Simulink

❖ Web Development

❖ Python

❖ AutoCAD

❖ Control Systems

- **Interests:** Cooking; photography; trekking; teaching; soccer

## REFERENCE

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### Troy Leyden

Operations Engineer | Fitzroy River Water

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### Dr. Lam Bui

Senior Lecturer – Engineering | CQUniversity

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