

SUMMARY: MS in Electrical Engineering with 5 years of professional experience, expertise in MATLAB, C/C++, LabVIEW, PCB design, testing, electronic troubleshooting, microcontroller and FPGA programming.

EDUCATION

M.S. Electrical Engineering | GPA 3.94 | Michigan Technological University | August 2016 Houghton, MI
B.E. Electronics Engineering | GPA 4.00 | Tribhuvan University | January 2010 Kathmandu, Nepal

ENGINEERING PROJECT EXPERIENCE

Michigan Tech – Google funded project under Multi University Research Agreement May 2015 – May 2016
Project: **Google R2**

Objective: Design validation of nonuniform sampling analog to digital converter chip

- Conducted detailed testing, measurements and troubleshoot for validation of the design specifications
- Programmed SPI to calibrate the chip with correct voltage and current values
- Performed injection-locking using arbitrary function generators to stabilize clock frequency
- Collected nonuniform sampled data output from the chip using a data acquisition system: logic analyzer
- Developed MATLAB script to analyze the data and reconstruct the input signal
- Documented the results in technical reports and submitted to Google engineers

Do it yourself (DIY) project June 2015 – July 2015

Project Objective: **LabVIEW based automatic temperature control system**

- Developed a LabVIEW VI to control the temperature of a heating system
- Designed a temperature control circuit consisting of LM34, LM74, relay and resistor
- Used NI my DAQ for the data acquisition from the temperature sensor and to output a voltage to turn ON/OFF the heating system

Tribhuvan University August 2009 – October 2009

Project Objective: **Design an alert system for machine overheat detection**

- Designed a PCB consisting of 8051 series microcontroller, digital temperature sensor, 7-segment display, diodes, buzzer and pushbuttons using EAGLE
- Implemented Embedded C language for programming microcontroller
- Checked the electromagnetic compatibility issues associated with the circuit design and PCB layout
- Developed an alert system which gives notification of overheat through buzzer and 7-segment display

MILITARY EXPERIENCE

Nepalese Army Kathmandu, Nepal
Captain/Electrical Engineer August 2010 – August 2014

- Managed an electronic lab with technical team of 25 with organization’s policies and procedures
- Electronic troubleshooting, hardware debugging and repair of radio communication equipment
- Quality procurement, assembly and quality assurance of radio communication equipment
- Developed test plans and schedules for maintenance of the equipment
- Trained and guided technician team for developing knowledge & continuous improvement

WORK & LEADERSHIP EXPERIENCE

Kathmandu Engineering College Kathmandu, Nepal
Lecturer March 2010 - July 2010

- Instructor for Computer Architecture Design (CAD) and C++ courses for a class of 50 students
- Taught and graded labs of Computer Architecture Design (CAD) and C++
- Attended meetings with the department head to discuss the class performance of students

SKILLS

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|----------------|--------------------|---------|----------------|--------------------|
| MATLAB | C/C++ | LabVIEW | PCB Design | Engineering Design |
| Logic Analyzer | Function Generator | AutoCAD | DFMEA | PCB Soldering |
| Oscilloscope | Logic Analyzer | PSpice | Circuit Design | Microsoft Office |