

# ELE754 – Power Electronics

- **Course Outline**

<http://www.ee.ryerson.ca/undergraduate/dcd/ele754.html>

- **Key Knowledge to Be Acquired**

A course on solid state power converters and microprocessor control. The topics include characteristics of switching devices, diode and SCR rectifiers, switch mode power supplies, current/voltage source inverters, microprocessor and programming techniques and industrial applications.

- **Key Skills to Be Mastered**

Analysis of power converter operation, PWM gate signal generation, digital and analog control circuit, power converter selection and design for industrial application.

- **Potential Careers**

Engineers in the area where electrical power conversion is required. The industry include Hydro utilities, motor drivers, renewable energy, aerospace, lighting, electric and hybrid automobile, ...

- **Potential Employers**

Hydro One, Honeywell, Rockwell Automation, IE power, Satcon, Eaton, Seimens, ABB, Vestas, GE, Emerson, and many more other companies in Toronto area. You may even find a engineer job in IC manufactures including AMD, Nvidia, Texas Instrument, Infineon, etc.

- **Graduate Studies**

Waterloo, Toronto, Ryerson, Mcgill, Western Ontario, UBC, UNB, etc., have strong graduate programs in power engineering.