



BRITISH COLUMBIA
INSTITUTE OF TECHNOLOGY

School of Energy

2013/14 Electrical Engineering Capstone Projects

Students	Project	Year	Faculty Advisor	Collaborator(s)
Josh Fraser Alex Martins	Disaster Communication: A system is to be designed to provide important first-response communication on the BCIT campus in the event that a natural disaster destroys infrastructure and takes out the Internet and the Phone network (both wired and wireless).	2013/14	Neil Cox	Teresa Sharp (BCIT) Bob Gill (BCIT) City of Burnaby
Gavin Low Eric Millar Jack Chang	Industrial Process Control Optimization: Coupling between control loops in industrial processes can prevent operators from running their processes at maximum capacity. We will develop and demonstrate methods of detecting and mitigating the coupling.	2013/14	Glenn Pellegrin	Diane Kennedy (BCIT)
Preston Li Dan Jiang Tommy Huang	Microgrid Interface System: Microgrids involve the interconnection of many different power sources and sinks. Precise synchronization is needed to interface a device with the Microgrid. This project involves designing and building a synchronizing system to provide the necessary protection and control in an interface with a Microgrid.	2013/14	Ali Palizban	BCIT Technology Centre
Jack Hung Gino Geniebla Derek Scheper	Low Cost Solar Panel Controller: Cost and efficiency are the main things that prevent widespread usage of solar power. We intend to develop and implement a solar cell power interface using low-cost components and improved algorithms for achieving greater efficiency.	2013/14	Chris Siu	
Gurminder Grewal Ahmed Soufi	Cordless Power Transfer: Devices with rechargeable batteries inevitably get discharged at the most inconvenient times and you need to plug them in for hours to recharge them. Our intention is to implement wireless methods to keep such devices charged for a specific application.	2013/14	Bob Gill	