BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Energy

2014/15 Electrical Engineering Capstone Projects

Students	Project	Year	Faculty Advisor(s)	Collaborator(s)
Matthew Ng Andrew Yik Kurt Maglalang	**SMART Autohelm Watercraft Controller:** Manual directional control of watercraft (like a sailboat) sometimes prevents you from enjoying other aspects of being out on the water. This project is about taking away some of the burden of directional control so that you can enjoy other things.	2014/15	Craig Hennessey	
Peter Cornwell Joel Hooge	**Cold Atom Pressure Sensor Electromagnetic Controller:** The US National Institute for Standards and Technology (NIST) wants BCIT and UBC to create a new system for standardized measurement of very low gas pressures. Key elements of this system require creative solutions to challenging power electronics and control system design requirements.	2014/15	Chris Siu	James Booth (BCIT Physics), UBC
Maninder Badial Kevin Fletcher James Vlasblom	**Volt VAR Optimization:** Power Companies are very interested in ways of increasing the efficiency of delivering power to customers. We are creating a demonstration system that actively optimizes this efficiency.	2014/15	Ali Palizban Kathy Manson	BCIT Technology Centre, BC Hydro
Dan Roman Craig Palmer Max Deslauriers	**Microgrid Interface System:** Microgrids involve the well-controlled interconnection of different power sources and sinks. The project involves creation of a physical demonstration of a microgrid for use in education of students about microgrids.	2014/15	Ali Palizban Kathy Manson	BCIT Microgrid Project
Ryan Kim Jacob Papp Eric Wong	**Integrated Electric Vehicle Fleet Controller and Fueling System:** A system is needed to for electric vehicles to communicate and share vehicle data with fuel dispensing systems as well as to control the recharging process.	2014/15	Bob Gill	Don Bildfell (Cypress Power)
Zeeshan Syed Gled Vranici	**Power assist for Manual Wheelchairs:** The challenge for this project is to provide an inexpensive power assist accessory for manual wheelchair users who may occasionally have physical difficulty with long distance pushing, uneven terrain, or with steep inclines	2014/15	Neil Cox	Jaimie Borisoff (BCIT Tech Ctr)
Aaron Dahl Joanne Bpetzles Andrew Schlosser	**Portable Diagnostic Lab:** This project involves development of a portable kit for diagnosis of pneumonia in children in low-resource settings. This addresses a major cause of death and suffering.	2014/15	Bob Nicholson	Nancy Paris (BCIT Tech Ctr)