

Dalhousie University Faculty of Agriculture

AGRI5710 and AGRI5705: Graduate Module Course

Module Offering Request

Please complete and send in electronic form to Dian Patterson, Course Coordinator, Haley Institute, dian.patterson@dal.ca. This form must be submitted by the Instructor of the module and approved before the module begins. The Course Outline for AGRI5710/5705 (available at Faculty of Agriculture Graduate Program website, or from the Course Coordinator) provides further details on the course structure.

Application of Artificial Neural Network/Deep Convolutional Neural Network with MATLAB for Agricultural Automation

Instructor:

Dr. Young Ki Chang, Assistant Professor and Biosystems Automation Research Chair
Engineering Department, Faculty of Agriculture, Dalhousie University

Time: Summer/Fall Term 2017

Delivery: This module will be comprised of 6 weeks of 2 hour lectures/labs dealing with basics of Neural Network Toolbox of MATLAB:

Background

This module will introduce graduate students in agriculture to the syntax of MATLAB. Particular topics especially Artificial Neural Network/Deep Convolutional Neural Network using Neural network Toolbox which provides algorithms, pre-trained models, and apps to create, train, visualize, and simulate both shallow and deep neural networks.. The module ends with project work and report submission by each student, aiming at solving a problem related to his/her thesis.

Evaluation: Assessment of this module will be in lab coding, the form of weekly assignments and a single report to be submitted at the end of module.

- Laboratory exercise coding (20 %);
- Weekly assignment (30 %); and
- Individual project work (includes presentation and report) (50 %).

Prerequisites:

Enrollment in graduate program