

## **Module 1: Application of DCNN for Agriculture**

### **Instructor:**

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**Time:** Winter Term 2019

**Delivery:** This module will be comprised of 6 of 2 hour lectures/labs dealing with TensorFlow deep neural network frame:

### **Background**

This module will introduce graduate students in agriculture to the syntax of TensorFlow. Particular topics especially unsupervised machine learning (DCNN), pre-trained models, and apps to create, train, visualize, simulate algorithms, and Application Programmable Interface (API). TensorFlow would be utilized as programming frame. The module ends with project work and report submission by each student, aiming at solving a problem related to his/her thesis or future project development.

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

### **Prerequisites:**

Enrollment in graduate program