Monday, June 7
10:00 Introduction, Introductions (JLK)
10:15 Elements of Energy Flows in Electromechanics (JLK)
11:30 Introduction to MATLAB (SBL)
12:30 Models of PM DC and Brushless Machines (JLK)
1:30 P Lunch Break
2:30 Introduction to Afternoon Lab (SBL)
3:00 - 5:30 Lab: Getting Started, Simulating DC Machines

Tuesday, June 8
09:30 MATLAB Programming and functions (SBL)
11:30 Park’s Transformation, D-Q Modeling of Synchronous Machines (SBL)
1:00 P Lunch Break
2:00 Internals of PM Brushless Machines (JLK)
3:00 Drives Using Interior Magnet PM Machines (JLK)
3:45 Introduction to Afternoon Lab (SBL)
4:00 - 5:30 Lab: Simulating Brushless (PM) Drive Systems

Wednesday, June 9
9:30 Inverters and Drive Systems: DC-DC (SBL)
12:00 AC Inverters: The teaching lab inverter (SBL)
1:00 P Lunch Break
2:00 Inverters Continued
3:00 Introduction to Afternoon Lab (JLK)
3:30 - 5:30 Lab: Build an induction motor and/or brushless motor drive

Thursday, June 10
09:30 Induction Machine Modeling (JLK)
10:45 Induction Machine Design Techniques (JLK)
12:00 Induction Motor Drives: 6-pulse and PWM (JLK)
1:00 P Lunch Break
2:00 Design Strategy and models/ Optimization (JLK)
3:30 - 5:30 Lab: Designing Scripts for Designing Brushless Machines

Friday, June 11
09:30 Induction Motor Control Models (SBL)
10:45 Field Oriented Control (SBL)
12:00 The Rest of the Control Loop (SBL)
1:00 P Lunch Break
2:00 Introduction to Afternoon Lab (SBL)
2:30 - 5:00 Lab: Simulation and Analysis of Induction Motor Drives