

Item No.: SO4204-7Z

## Course - Electric Machines 7: BLDC/servo motors

### Includes:

- 1 Experiment card featuring a brushless DC (BLDC) motor with electronic commutation, speed and torque control plus Hall sensors for measuring speed
- CD-ROM with LabSoft browser and course software

### Course contents:

- Introduction to common applications of BLDC motors
- Introduction to design and function of BLDC motors
- Experimental investigation of how BLDC motors work
- Advantages and disadvantages of BLDC motors
- Introduction to various circuits for controlling BLDC motors: square and sine-wave current signals
- Measurement and analysis of circuits
- Introduction to various methods of detecting rotor position: Hall sensors, back-emf, pole detection, resolvers and incremental sensors
- Measurement of position using Hall sensors
- Introduction to current and speed control of BLDC motors
- Experimental investigation of speed control
- Setting parameters for speed control
- Course duration: 5 h approx.

