

Item No.: SO4204-7X

## Course - Electric Machines 6: Linear motors

## <u>Includes</u>

## Experiment board with:

- Transparent linear motor with non-ferrous armature
- Range 340mm approx.
- Integrated microprocessor control
- 35W power amplifier
- · Visualisation of control vector
- · Position detection with analog Hall sensors
- CD-ROM with Labsoft browser and course software

## Course contents

- Introduction to design and operating principle of a linear motor
- Explanation of terms "Lorentz force" and "induced voltage"
- · Introduction to linear motor applications
- · Designs of linear motors
- Advantages and disadvantages of linear motors in comparison to rotary motors
- Determination of characteristic values for a motor
- · Positioning of a linear motor
- Determining motor position with the help of encoders or Hall sensors
- · Distinction between relative and absolute positioning
- Determination of motor position using analog Hall sensors
- Course duration: 4.5 h approx.