



The Precision Modular Servo Workshop is designed to take you from control system design to hardware implementation in a short amount of time. The Precision Modular Servo Workshop is suited for serious research of digital linear servo control systems because of its resolution and accuracy, as well as the constancy of its performance.

The Precision Modular Servo Workshop not only allows you to study digital control, but it also gives you a thorough introduction to servos, from basic analogue servo studies to full, real-time digital control using MATLAB™, SIMULINK™, Real-time Workshop, and Real-time Windows Target. It is backed up by laboratory assignments that are meant to offer students a thorough understanding of the control channels within the equipment.

Phenomenological process models

- Dynamics analysis
- Discrete models identification
- Controller design
- Controller tests on the model
- Controller implementation in real-time applications
- Implementation of various control strategies
- Data visualisation

The Phenomenological Process Models are created in SIMULINK™ to offer the user with starting models to evaluate. The use of simple dynamics analysis – such as bode diagrams, poles, and zeros maps – is next introduced, followed by a discussion of model linearization.

Identification approaches integrating MATLAB™ functions are discussed in order to obtain accurate models. The user can go through the discrete model identification process step by step. The controller is designed using one of the 'obtained models,' and PID control is discussed. PID controller design, testing, tuning, and implementation on the model are all covered in this guide.

The root locus technique is used to illustrate the changes that PID controller tuning inflicts on the control system performance. The designed controllers are prepared in SIMULINK™.

Specification:

- Power requirements
- Line voltage: 200/250 V. Consumption: 100 VA.
- Fuse: 4 A (110V), 2 A (230 V).
- Dimensions & Weight
- Length: 720 mm
- Height: 50 mm
- Depth: 520 mm
- Weight: 21 kg.

Note: Specifications are subject to change.