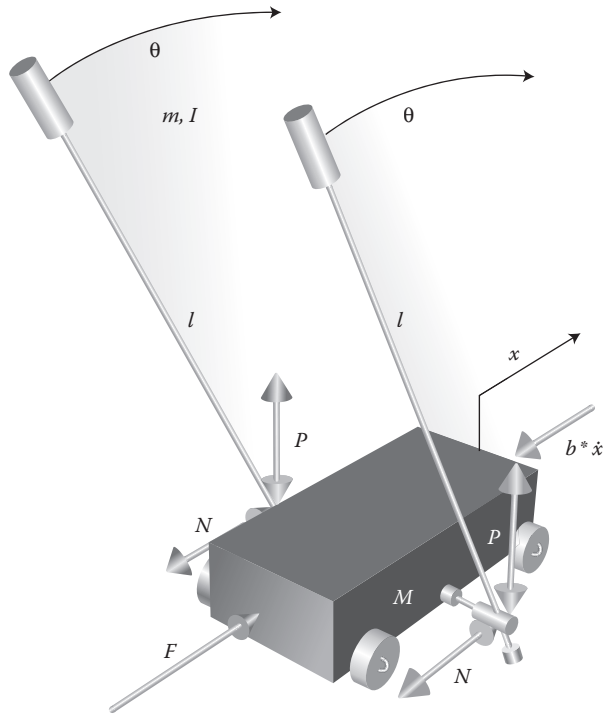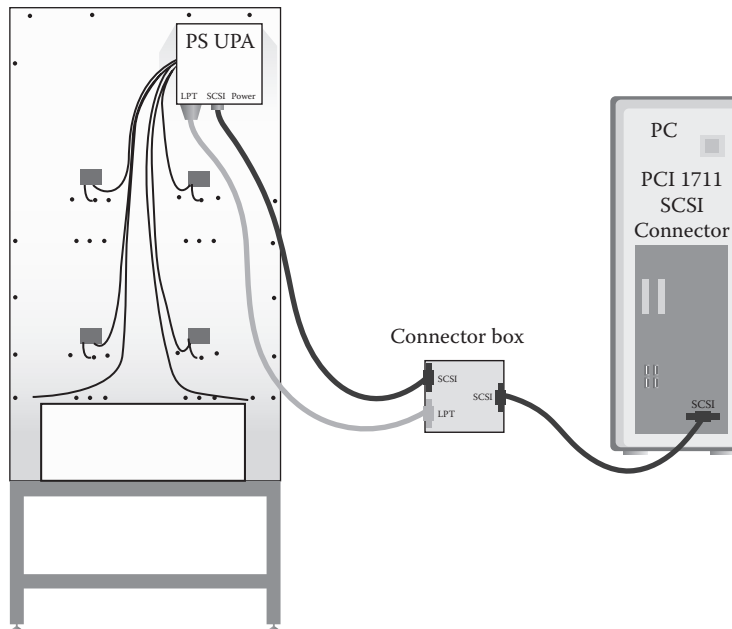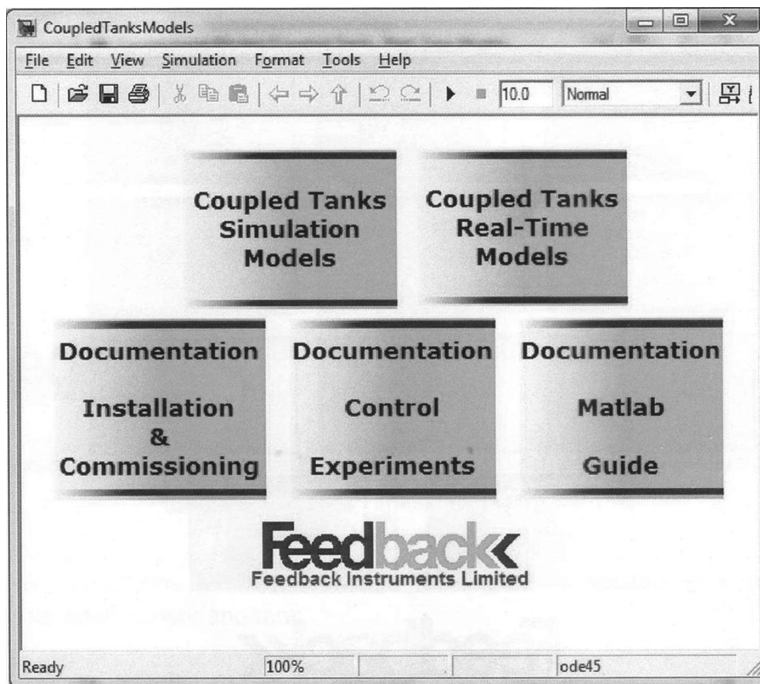**FIGURE AII.1**
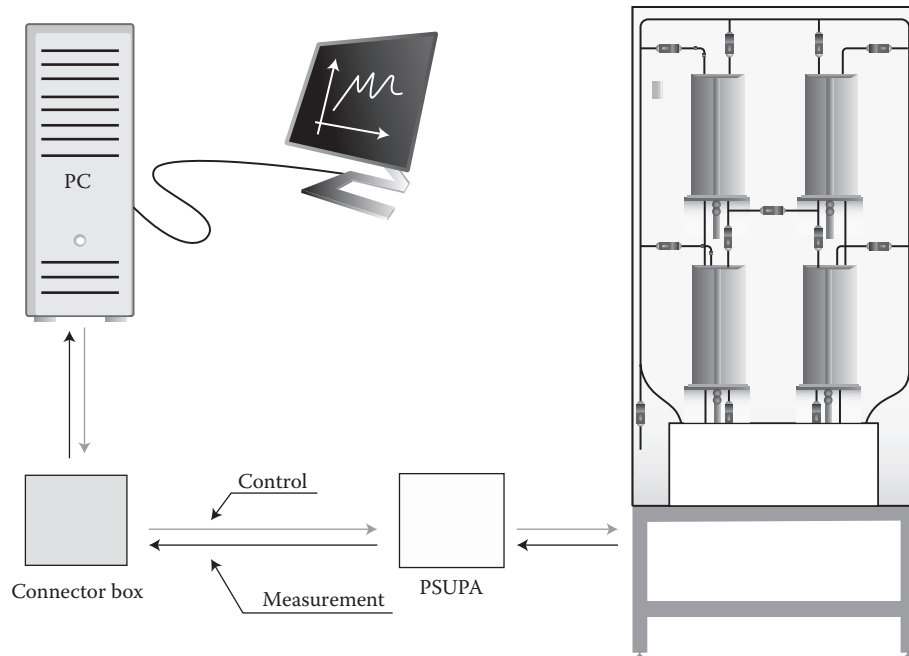**(See color insert.)** Implementation of real-time model using FEEDBACK≪® instrumentation.

**FIGURE AII.2**
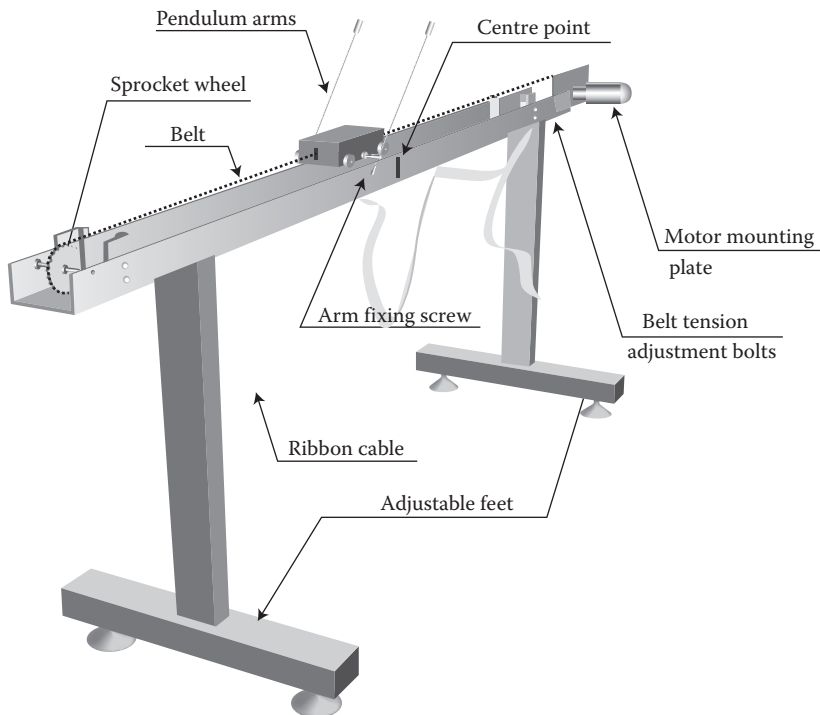**(See color insert.)** Model description example of an inverted pendulum.

**FIGURE AII.3**
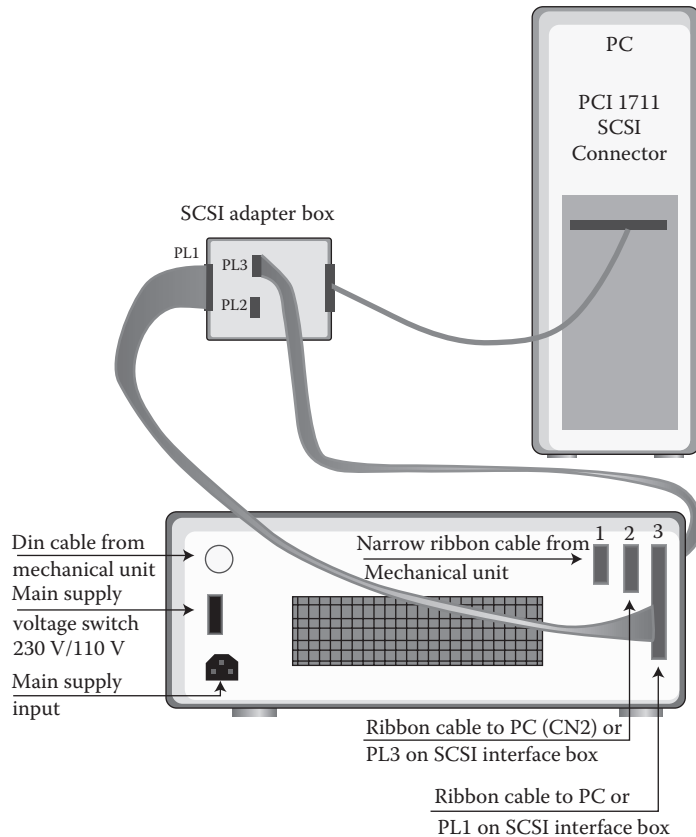**(See color insert.)** Coupled tanks connection diagram.

**FIGURE AII.4**
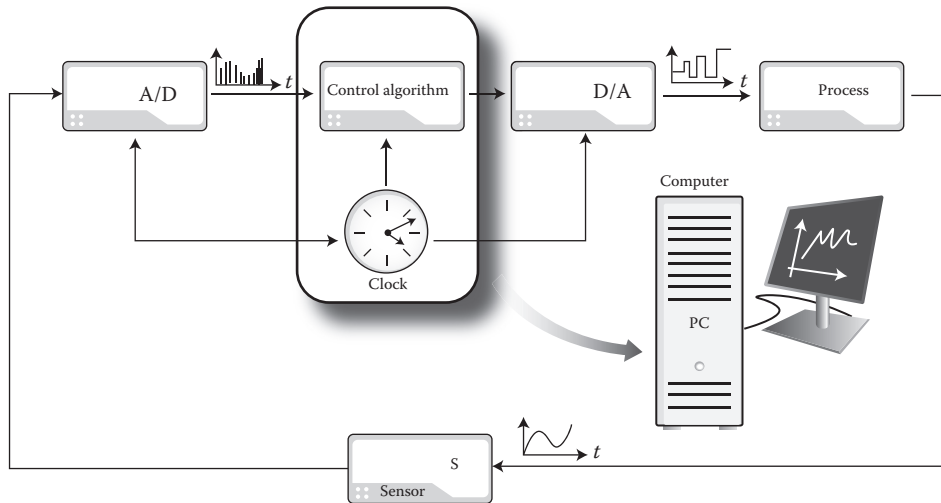**(See color insert.)** Simulink model menu for coupled tanks.

**FIGURE AII.5**
**(See color insert.)** Control system schematic for coupled tanks.

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**FIGURE AII.6**
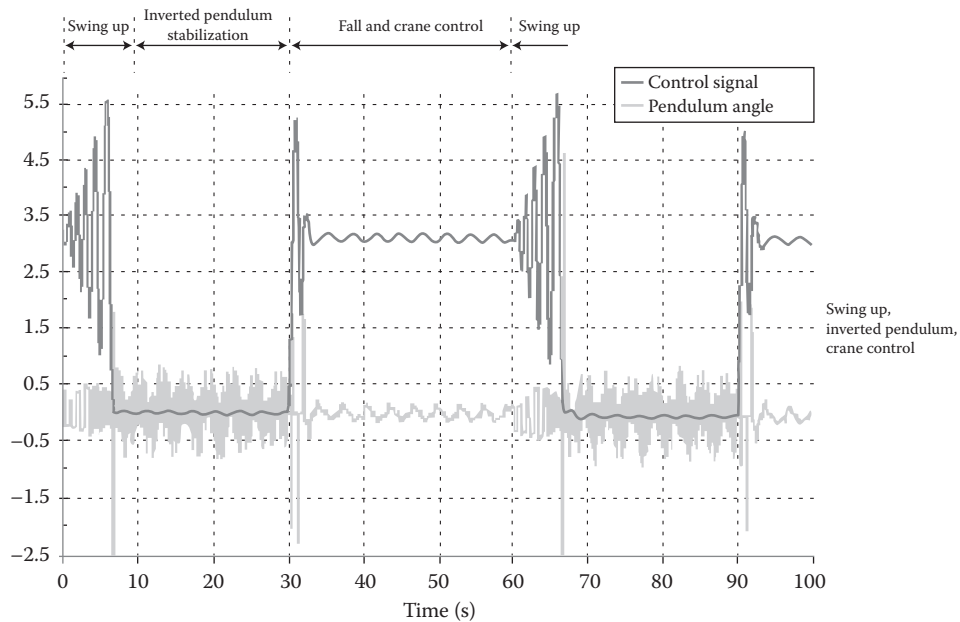**(See color insert.)** Inverted pendulum unit.

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**FIGURE AII.7**
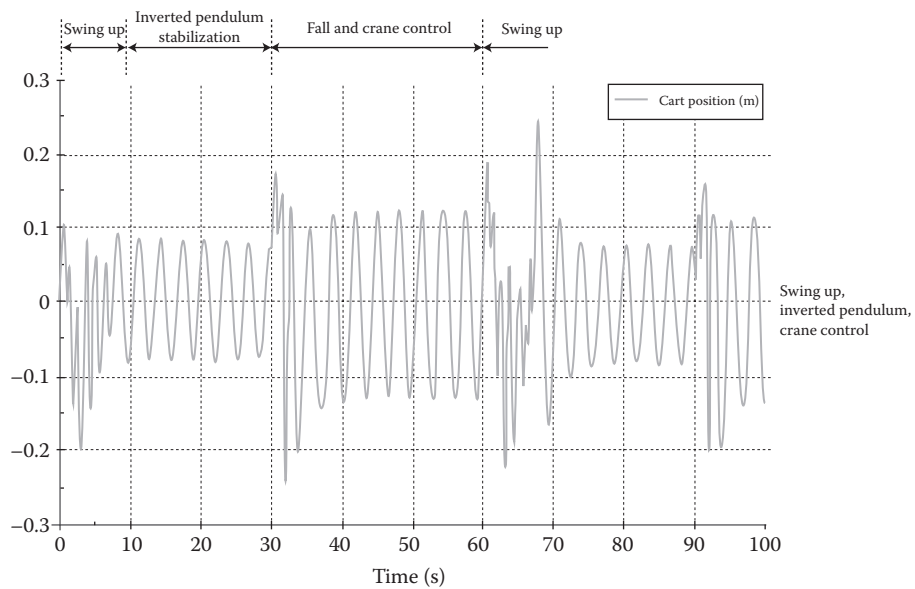**(See color insert.)** Connection diagram for inverted pendulum.

**FIGURE AII.8**
**(See color insert.)** Computer control system diagram.

**FIGURE AII.9**
**(See color insert.)** PID cart control.

**FIGURE AII.10**
**(See color insert.)** Pendulum PID control response.

**FIGURE AII.11**
**(See color insert.)** Pendulum cart position; PID control response.

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