



## Technical Workshop:

**Title:** TWP 504 Design of Electric Motion Control Systems

**Duration:** 20 hours

**Content:**

1. Electric and magnetic fields, permanent magnetic materials
2. Solenoids, DC brush type motors and drives, DC brushless type motors and drives
3. AC induction motors and vector drives
4. Stepper and SR motors and drives
5. Dynamic modeling, control and simulations of DC motors in Matlab/Simlink environment.
6. Programmable automation concept and components
7. Distributed versus centralized multi-axis motion control
8. Closed loop servo control: PID algorithm, its various versions, tuning.
9. Multi axis motion control: motion coordination, sensing and actuation requirements, real-time software.
10. Point-to-point coordination, electronic gearing, electronic camming, robotic path tracking
11. Examples of various automated machines, robotics applications, factory automation and mobile equipment.

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### Registration Information:

**Dates:**

**Location:**

**Cost :** \$1450.00 /person, 10% discount for each additional person from the same company.

**Name:**

**Company:**

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