Five day course on Automation and Control Applications

COURSE OUTLINE
System dynamics
Digital controller basics
System Identification, Adaptation and tuning.
Robust controller design
Model predictive controller design
Control loop performance assessment and highlighting need for controller re-design.
Automation using PLC and SCADA (a brief introduction only)

Who can attend
Faculty from Chemical, Mechanical, Instrumentation, Electrical, and Electronics departments.
(Basic knowledge of control systems is required).

Format of the Course
The course provides the principles and techniques related to advances in automation and control systems. The course consists of
• Lecture sessions;
• Tutorial / hands-on training sessions;
• Software demonstration / practice sessions; and
• Open session for discussions.

Skills to be Developed
• Understanding of basic control system, their architectures and their limitations.
• Digital control aspects and advances in digital control methodologies
• Understanding mathematics and solve techniques related to robust control methods
• Hands on-exercises to appreciate the potential of technology.
• Performance assessment methodologies for control systems and improved controller design methods

Important Note: All participants must bring their own laptops with MS-Windows 8 /10. The laptops will be required for doing simulations and hands-on on DC motor kits etc.