

Energy Efficiency for Mechatronic Systems

Preparation to Schneider Electric Certification in Energy Management

Video courses program

This course is based on the Energy Management Fundamentals for System Integrators professional path proposed by Schneider Electric. The courses cover several skills: **Conceptual/Methodological (red)**, **Financial (green)** and **Technical (blue)**.

The advised course order through the video courses is the following:

1. **Energy Efficiency Fundamentals**
2. **Energy Audits**
3. **Energy Rate Structures I: Concepts and Unit Pricing**
4. **Energy Rate Structures II: Understanding and Reducing Your Bill**
5. **Power Factor and Harmonics**
6. **Motors: A Performance Opportunity Roadmap**
7. **Active Energy Efficiency Using Speed Control**
8. **Efficient Motor Control With Power Drives Systems**
9. **Pumping Systems I: Pump Types and Performance**
10. **Pumping Systems II: Efficient Flow Control**
11. **Financial Analysis of Energy Efficiency Projects I**
At this level, the students should be able to accomplish Project 1: Efficient Flow and Level Control.
12. **Compressed Air Systems I: An Introduction**
13. **Fan Systems I: Introduction to Fan Performance**
14. **Fan Systems II: Fan Types**
15. **HVAC and Characteristics of Air-US Version (SI Version is also available)**
16. **HVAC Systems I: Introduction to HVAC Systems**
17. **Steam Systems I: Advantages and Basics of Steam**
18. **Steam Systems II: Impact of Boiler Sizing, Pressure, and Velocity**
19. **Boiler Types and Opportunities for Energy Efficiency**
20. **Measuring and Benchmarking Energy Performance**
21. **Distributed Generation**
22. **Demand Response and the Smart Grid**
23. **Financial Analysis of Energy Efficiency Projects II**
24. **Commissioning For Energy Efficiency**