Elearning for Engineers

Automotive HVAC Fundamentals

This 8-hour self-paced seminar provides a fundamental background for design and development of world-class automotive HVAC systems. With emphasis on quality, efficiency, and safety, Engineer Gregg Peterson presents this new seminar, drawing upon 3 decades aero-thermal experience at automotive companies such as General Motors and Lotus Engineering.

Eight streamed lecture modules include theoretical concepts and real-world case studies presented on the following HVAC topics:

• Vehicle Thermal Loads
• Key Related Systems & AC System
• Operational Principles
• AC System Refrigerant Side & Air Components
• HVAC Module Components
• Psychometric & Pressure Enthalpy Charts
• AC System Sizing
• HVAC Control
• Air Distribution, Refrigerant and Coolants
• Performance Targets

Prerequisite: Working knowledge of thermodynamics & automotive systems is recommended. Detailed information on CAR’s research-based automotive engineering seminars on relevant topics in the areas of powertrain modeling & control, advanced propulsion, energy and NVH is available at englearn.osu.edu/curriculum/noncredit.

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