Setting the Standard for Automation™

CSE PE Prep Course coming to Houston!

Control Systems Engineering (CSE) PE Exam Review Course

Sponsored by ISA and the ISA Houston Section

This course reviews the knowledge and skills areas that are included on the Control Systems Engineer (CSE) Professional Engineer (PE) examination—produced by the National Council of Examiners for Engineering and Surveying (NCEES) and administered by US state professional licensure boards each October. The intent of the class is to prepare an engineer with four or more years of experience to take the exam by providing instruction in the broad range of technical areas that will be tested.

You Will Cover:

- Sensors Technologies Applicable to Various Measurements (Process Variables)
- Signal Types and Transmission Methods
- Signal Circuit Design
- Control System Analysis and Implementation
- Codes, Standards, and Regulations
- And more...

You Will Be Able To:

- Follow the guidelines for taking the CSE PE exam
- Apply recognized standards for symbols and documents
- Recognize the basic calculation techniques for measurement devices
- Apply process variable measurements and sensor selection
- Explain basic process control loops:
  -Configuration
  -Operation
  -Performance
- And more...

Classroom/Laboratory Exercises:

- Practice taking CSE exam-related questions

Registration Includes ISA Text (A $59 Value!)

- *Control Systems Engineering Study Guide,* by ISA

To register for this informative short course, visit **www.isa.org/2016/HoustonEN00** or call **+1 919-549-8411**.

Early Bird Discount and Deadline!
Save 5% when you register for this course offering by **18 July 2016** using Promo Code: **EN0016HOT**

"A good general overview of what to expect on [CSE PE] exam. Good information on how to go about taking the test (strategy). Pointed out to me what areas I needed to work on."

—Brian Keene, Plant Engineer

more ▶

EP30-5999-0316

Quick Quiz

1. **At 433 degrees F, a type J thermocouple with a 32 degree F reference junction will produce an output in millivolts that is most nearly to:**
   a. 9.04
   b. 10.51
   c. 12.05
   d. 17.79

2. **The flow of water in a 6-inch pipe is measured with an orifice plate and differential pressure transmitter. At a flow rate of 200 GPM, the differential pressure is 35 inches of water. At a flow rate of 312 GPM, the differential pressure will be approximately equal to:**
   a. 16.4" wc
   b. 32.5" wc
   c. 85.4" wc
   d. 100" wc

3. **A SIL 1 interlock has an RRF of 42.76. The target RRF is 75. How can you increase the RRF to meet or exceed the target RRF?**
   a. Add more field sensors
   b. Add dual solenoids to the one and only one block valve
   c. Double the testing frequency
   d. None of the above

4. **Which of the following types of valves has the highest gain when the valve is nearly closed?**
   a. Quick opening
   b. Equal percentage
   c. Fail open
   d. Linear

Learn the answers to these questions AND find out if this course is right for you with the EN00 pre-instructional survey: **www.isa.org/EN00/Survey.**

Instructor

Gerald Wilbanks, P.E., is Vice President of Documentation & Engineering Services (DES) in Birmingham, Alabama. He has over forty years of experience in engineering, management, consulting, and design in heavy industry. His experience includes the chemical, pulp and paper, power, and manufacturing fields. Prior to forming DES, he was associated with Rust Engineering and Union Carbide. He is a registered professional engineer in four states; a member of NSPE, of ASQ, and of ISA; and an International Former President (1995) of ISA. Gerald is a graduate of Mississippi State University (MSU) with a Bachelor Degree in Electrical Engineering. He was recognized as the Engineer of the Year in 1991 by the Engineering Council of Birmingham. He is a Distinguished Engineering Fellow of MSU and is a Life Fellow Member of ISA. He has served as an instructor for many ISA courses, seminars, and other educational sessions, as well as those for his own business.

Course Details

Date:	18–20 August 2016
Time:	8:00 a.m.–4:00 p.m.
Location:	Phoenix Contact – Customer Technology Center 3993 W. Sam Houston Parkway N., Suite 500 Houston, TX 77043
Course No.:	EN00
CEU/PDH Credit:	2.1/21
Price:	$1,560 ISA Member; $1,860 Affiliate Member; $1,950 Community Member/List

To register, call +1 919-549-8411 or visit www.isa.org/2016/HoustonEN00.

Space is Limited—Register Today!

The Early Bird Discount Deadline is 18 July 2016.
The last day to pre-register online is 8 August 2016.

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