

# 2014 ISA Water/Wastewater and Automatic Controls Symposium

August 5 to 7, 2014.....Crowne Plaza Orlando-Universal Hotel.....Orlando, Florida, USA  
Presented by the ISA Water/Wastewater Industries Division – [www.isawwsymposium.com](http://www.isawwsymposium.com)  
Technical co-sponsors: Florida AWWA Section, the WEF Automation and Info Tech Committee ,  
Florida Water Environment Association, Instrumentation Testing Association, and ISA Tampa Bay Section



August 4-5, 2014 – Optional Short Course

## Troubleshooting Instrumentation and Control Systems

ISA Course TC10

### Course Description

**Length:** 2 days

**Date:** Mon-Tues, August 4-5, 2014

**CEU Credits:** 1.4

**Course Hours:** 8:00 a.m. – 4:00 p.m., includes lunch both days

**Price:** \$1,305 for ISA Members, \$1,630 List

### Course Schedule

DAY	Topics, Exercises, Etc.	Time
Day 1 A.M.	Course Introductions Pre Instructional Survey Section 1- Troubleshooting techniques Section 2 – Review of Diagrams & Symbols Section 3 Common Problems	0.25 hours 1.50 hour 0.75 hour 1.00 hour
Day 1 P.M.	Application Exercise 1 Overview of Portable trainer Laboratory Exercise 1	1.00 hour 0.50 hours 2.00 hours
Day 2 A.M.	Review/questions from daily progress report Section 4 Troubleshooting Safety Section 5 Startup Laboratory Exercise 2 Section 6 Digital Communications Section 7 Digital Control Systems	0.25 hours 0.25 hours 0.25 hours 2.00 hours 0.50 hour 0.50 hour
Day 2 P.M.	Laboratory Exercise 3 Section 8 Multi-Loop Systems Section 9 Interlocks and Safety Systems Post Instructional Survey Final Course Evaluation	2.00 hours 0.50 hour 0.50 hours 0.25 hours
		14 hours = 1.4 CEUs