

SIL Solver Enterprise[®] - 1 Day Course

Time:	TBD
CEUs:	0.75

Audience: Control system specialists, instrumentation and electrical personnel, and SIS design specialists

<u>Description</u>: The SIL Solver[®] Enterprise course introduces new users to SIL Solver Enterprise and how it is used to verify the safety integrity level (SIL) and spurious trip rate (STR) of safety instrumented functions (SIF). The course is 50% lecture and 50% hands on practice. Attendees will complete workshops on identifying SIF and creating failure models of varying complexity. <u>Participants must have access to a web browser</u>. Two display screens are preferrable so that the participants can see the function being modeled on the instructor's screen and being modeled by themselves.

- 1) Why Verification?
 - a) Verification Introduction
 - b) Target Failure Measure
 - c) Mode of Operation
 - d) Hardware Fault Tolerance
 - e) Low Pass Flow
- 2) Selecting Data and Determining What to Model
 - a) Database Structure
 - b) Identifying the Function
 - c) Back Flow
 - d) Hot Spots
 - e) Building and Promoting Custom datasheets

- 3) Fault Detection and Common Cause
 - a) Diagnostics and MTTR
 - b) Testing, Test Interval, Test Coverage
 - c) Common Cause
 - d) Surge Drum Workshop
- 4) Beyond the P&ID and Cause & Effect
 - a) Non-safety Functions
 - b) Hidden Devices
 - c) Pump Protect Workshop
 - d) Support Systems
 - e) Final Elements Workshop

Instructors:

Dr. Angela Summers is the president of SIS-TECH. She holds a PhD in chemical engineering and has over 30 years of experience in instrumentation and controls. Dr. Summers is a fellow of AICHE, CCPS, and ISA and is a distinguished engineering fellow of Mississippi State University and the University of Alabama. Recently, she was awarded IEC's 1906 award for her contribution to the development of standards and practices covering the use of automation to prevent loss events in the process industry.