



## ◀ SIL SOLVER COURSE - \$250

### Class on October 22, 2007

The SIL Solver course is a one-day course covering the use of SIL Solver to perform verification of the integrity level of instrumented functions. The course participants will gain an understanding of the following:

- o How to define of a safety instrumented function.
- o How SIL Solver executes the calculation.
- o How to navigate in SIL Solver.
- o Where the SIL Solver data comes from.
- o How to build your own data sheets.
- o How to backup your data sheets.
- o How basic safety instrumented function are modeled using SIL Solver.
- o How complex safety instrumented functions are modeled using SIL Solver.
- o How changes to the safety instrumented function design, operation, and maintenance affect the target SIL, reliability, and maintainability.

These objectives are reinforced through workshop examples of SIL verification. Since this is a hands-on course, participants should bring a lap top computer with an authorized version of SIL Solver. Students must bring to the class a notebook computer with a loaded copy of SIL Solver.

DAY 1	
1.	Why verification using models?
2.	SIF Documentation
3.	Important variables on data sheets <ul style="list-style-type: none"> <li>a. Fail Dangerous/Fail Safe Failure Rate</li> <li>b. Mean Time to Repair</li> <li>c. Diagnostic Coverage</li> <li>d. Diagnostic Interval</li> <li>e. Common Cause Factor</li> <li>f. Voting</li> <li>g. Testing Interval</li> </ul>
4.	Basic SIL Solver navigation. <ul style="list-style-type: none"> <li>a. Building SIFs in SIL Solver</li> </ul>
5.	SIL Verification Exercise 1 <ul style="list-style-type: none"> <li>a. Using % Contribution to understand weak links</li> <li>b. Modeling redundant and non-redundant sensors and final elements</li> <li>c. Verifying and improving the results</li> </ul>
6.	SIL Verification Exercise 2
7.	SIL Verification Exercise 3
8.	SIL Verification Exercise 4