SOFTWARE SYSTEM SAFETY ENGINEERING
Training offered by A-P-T Research, Inc.

The Software System Safety (SwSS) Engineering training course presents an integrated combination of system safety, software safety, and software engineering technologies. The course theme is centered around functional safety and software safety analyses for complex, software intensive systems to gain a clear understanding of the attributes of system level behavior in software. It is designed for safety professionals wanting to advance their skill and knowledge in software system safety engineering techniques.

The course describes generic SwSS processes adaptable to a government and industry practices. It is also tailorable to specific projects and software development processes. Each course module is designed to provide the student with the information, resources, and detail needed to understand and apply the material. Exercises and quizzes are included to build student confidence when applying software system safety principles.

The topics covered in this class include:

- Directives, Policies, Regulations, and Standards
- Principles of SwSS
- SwSS Process Introduction
- Planning a SwSS Program
- Hazard Identification and Tracking
- Risk Management
- Functional Safety
- SwSS Analyses

- Model Based Software Safety
- Aviation Safety and Airworthiness
- Safety-Critical Software Architecture
- Agile and Safety Critical Software
- Programmable Logic Devices
- The Future of SwSS
- Use of Model Based Tools

A 4th day has been added to the course to demonstrate the practical use of the model-based "Medini" tool by ANSYS. This tool provides an efficient and comprehensive process to document functional failure conditions, hazards, safety requirements, risk mitigations as part of objective safety evidence.

Course Duration and Format

The course is 32 hours over 4 days, with about 6 hours of lecture each day and time for students to complete workshop problems or review course materials with the instructor. Class size will be limited to 30 attendees. Attendees of this course will typically be awarded up to 3.2 Continuing Education Units (CEU) upon completion of the course.

Safety Engineering and Analysis Center
The APT Safety Engineering and Analysis Center (SEAC) is conveniently located in Cummings' Research Park near Redstone Arsenal in Huntsville, AL.

Where
The A-P-T Research, Inc. Safety Engineering and Analysis Center in Huntsville, AL, webcast, or customer location as requested.

Schedule & Cost
Offered on a regular basis. Visit www.apt-research.com/training for specific dates and prices.

Contact Information
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Other Courses Available
- System Safety Engineering
- Explosives Safety
- Risk Management for Safety Engineers
- Reliability Engineering
- Radiation Safety Basics
- IMESAFR Software
- SAFER Software

For information on other training classes offered by APT, visit www.apt-research.com/training.

It is the policy of A-P-T Research, Inc. that those leading a learning event (instructors, guest lectures, etc.) disclose proprietary interest in any products, services, instruments, devices or materials discussed during a learning event. This includes any source of third-party compensation. Leaders of a learning event are required to disclose this information in the form of a verbal announcement at the beginning of the learning event.