

Education and Training Interest Group Draft Objectives

Formulated at Kickoff Meeting following the Process Control Systems Spring Forum
19 May 2005

With respect to Control Systems Security Education and Training:

1. Create Knowledge and Information Stores
 - a. Generate a shared, well publicized, effective, repository for control systems security information papers, links, software, hardware and databases
 - b. Promote “best practices” for control systems integrators
 - c. Draw upon historical lessons learned in Telecomm and banking
 - d. Create and share handouts, problems, and homework assignments
2. Promote Technician Level Modules and Programs
 - a. Encourage “Hands-on” versus straight classroom training in control systems
 - b. Use “modular” type licensing for control systems security education
 - c. Create training modules in security for control systems technicians in unions associated with infrastructure product and service providers
3. Create a strong IT / Control Systems Interface
 - a. Build “Slip in” modules for IT personnel and IT managers
 - b. Encourage the production of books targeted at IT personnel
 - c. Promote Cross training between IT and control systems
4. Raise Awareness of Control Systems Security Issues with Management and Users
 - a. Develop methods for communicating issues in control systems security to 1)management and 2) users
 - b. Create an awareness of control system issues for policy makers and policy writers
 - c. Market control systems education using a “homeland security” approach
 - d. Focus on creating 4 hour short courses
5. Promote Higher Level Education in Control Systems Security
 - a. Encourage collaboration between computer science and engineering labs on the topic of control systems security
 - b. For schools without engineering curricula, build up control systems in computer science labs
 - c. Include control systems in computer science and IT curriculum
 - d. Create mechanisms for inter lab sharing
 - e. Utilize Centers of Academic Excellence to propagate control systems security knowledge
 - f. Produce a series of Meetings at Colleges/Universities in regions around the U.S. to promote Control Systems and CS Security Education

- g. Create a formal competition in control systems security similar to past competitions held by ISA in building traditional control systems
 - h. Give birth to curriculum surrounding management of “Industrial” information technology v. traditional IT
 - i. Create and share handouts, problems, and homework assignments
6. Foster a Common Body of Knowledge
- a. Create a Common Body of Knowledge (CBK)
 - b. Work on a methodology for bringing the CBK into College level curriculum
 - c. Gather and Implement a control systems security lexicon
 - d. Collaborate with ISA to utilize the Control Systems Common Body of Knowledge as a starting place for a Control Systems Security BOK
7. Evaluate and Work with Membership Organizations to create Certifications
- a. Create an overarching certification mechanism
 - b. Focus on certification of “outsourced” providers
 - c. Spotlight certification of information technology professionals in control security
 - d. Include a practical requirement in the certification of control systems security similar to that in engineering
8. Promote Outreach to Organizations with Parallel Goals
- a. Involve organizations of organizations such as the American Automatic Control Council <http://www.a2c2.org>
 - b. Work with education & training divisions within other professional associations such as IEC and IEEE
 - c. Sell better to operators, the vendors and the academic community by working through ISA and spreading the word through vendors such as Wonderware
 - d. Expand the interest group by selecting specific well known and well connected individuals to participate
 - e. Publicize the interest group through LISTSERVs