Hardware Security: Building Tamper-Resistant Cryptography
June 20-22, 2011
Falls Church, VA

**Topic:** The 3-day course on Hardware Security introduces the key concepts in secure hardware design, including the major technologies for secure hardware, design techniques for cryptographic implementations, and design techniques for trustworthiness. The lectures combine theory with practical hands-on sessions in a computer lab. The hands-on sessions will also cover demonstrations using FPGA hardware.

**Instructor:** Prof. Patrick Schaumont (Virginia Tech)

**Target Audience:** A broad audience in Electronic Engineering, including designers of trustworthy electronics, managers involved in product definition, students, researchers, professional engineers.

Hunting for Software Bugs: Software Correctness and Security
June 22-24, 2011
Falls Church, VA

**Topic:** This 3-day course introduces the key concepts in software assurance - from the standpoint of functional correctness as well as security. Formal and informal methods for test generation, techniques of formal verification, abstraction techniques to build formal models, invariant generation, secure programming, major threat models or security lapses in software, test and formal techniques to look for security bugs etc. The lectures combine theory with practical hands-on sessions in a computer lab.

**Instructors:** Prof. Sandeep Shukla (Virginia Tech)
                  Prof. Michael Hsiao (Virginia Tech)

**Target Audience:** A broad audience of software programmers, software engineers and architects, students, and software product managers, validation and quality assurance practitioners, students, researchers, professional engineers.

**Location:** Northern Virginia Center, Falls Church, VA

**Registration:** The cost of each course is $1800. This includes three days of lecture, lecture materials, lunches and coffee breaks. Participants can register through the Virginia Tech Continuing and Professional Education website: [http://www.cpe.vt.edu](http://www.cpe.vt.edu)

**Questions** can be directed to Sandeep Shukla (shukla@vt.edu)