◆ Introduction to the Software Technology Track

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This year the Software Technology Track at HICSS has attracted a total of nine minitracks and one symposium on important and highly relevant topics in software technology: software engineering, security, networking and other emerging research areas.

The symposium is on the topic of "Creating Cyber-Pandemics." The systems that runs our critical infrastructures (power, communications, finance, shipping, etc.) are relatively fragile and not designed for robustness and stability. Instabilities in these systems can be exploited—creating *cyber-pandemics*—that may cause and propagate blackouts in the critical international infrastructures. The symposium speakers will discuss how cyber-pandemics can be architected and executed, and how their consequences cascade and multiply in nearly zero-time. They will also discuss the best existing preventions.

The nine minitracks in this year's Software Technology track are as follows:

- Agile Software Development: Lean, Distributed, and Scalable. This minitrack examines agile methods that bring best practices in knowledge management and lean development to scalable, distributed, and outsourced Scrum, eXtreme Programming (XP), and other agile practices
- Algorithmic Challenges in Emerging Applications of Computing. This minitrack explores algorithmic challenges in the areas of security, bioinformatics, quantum computing, power management, algorithmic game theory and others involving online and randomized algorithms, scheduling theory, approximation algorithms, optimization, and algorithmic complexity
- Cellular Network Design: This Minitrack focuses on fundamental challenges and issues arising in designing high quality cellular wireless networks for contemporary and future systems. These include 3G, 4G, WLAN and WMAN.
- CERT Software Application Security: This Minitrack focuses on the research and automation techniques required to develop secure software systems that do not compromise other system properties such as performance or reliability.
- Digital Forensics—Pedagogy and Foundational Research Activity: Digital forensics involves the use of software, computer science, software engineering, and criminal justice procedures to explore and or investigate digital media with the objective of finding evidence to support a criminal or administrative case.
- Grid Computing: Adaptive Software, Tools, and Applications: Grid computing environments are highly heterogeneous and dynamic. In this minitrack software for grid computing is examined in terms of its ability to adapt dynamically to changes in the underlying execution environments, to provide high performance, throughput, and quality of service to end users
- Enterprise Modeling for Information Systems Development: This Minitrack focuses on divorcing business issues from underlying technology platforms by placing 'models' at the heart of systems development, and providing a structure within which models can be developed and realized.
- Software Engineering for Medical Devices: This minitrack examines software controlled medical devices, which brings together a wide variety of topics in software engineering including real-time constraints, complex environment modeling, data identity, integrity and confidentiality, all of which impact their design, verification, validation and certification.
- Wireless Sensor Networks and Applications: This Minitrack focuses on fundamental challenges and issues arising in wireless sensor networks and their applications. Wireless sensor nodes and networks must provide solutions to practical problems, and must be both cost-effective and an improvement over previous practice.