2013 IEEE TCF Information Technology Professional Conference (TCF Pro IT)

Program Book

Date: Friday, March 15, 2013 to Saturday, March 16, 2013
Time: 8:30AM to 5:00PM
Location: The College of New Jersey, Ewing

Sponsors:

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Program Committee

Conference Chair: David Soll

Program Chair: Annette Taylor

Conference Treasurer: Josephine Giaimo

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Abstracts & Biographies – Friday

9:00 AM – 9:50 AM Presentations
Data Centers Snapshots
Kfir Godrich

Track: Infrastructure Software Development
Armstrong Hall AR-154
9:00 AM – 9:50 AM

Abstract:
This session will present a current view of the Data Centers and related technology markets and growth gradients. It will first take a look into the various segments of the market followed by trends, main drivers, geographies and go into sensitivity analysis. The user-centric perspective will concentrate on several topics such as: enterprise cloud implementation, hybrid and modular data centers, Industrialized IT, convergence of hardware, hyper-scale moves, DCIM directions and integration as well as risk. A series of solutions will be discussed and offered in order to enable better end-to-end manageability of existing and new IT environments.

Biography:
Kfir Godrich is a Managing Partner with Godrich Consulting LLC, a boutique consulting firm providing dedicated advice around business strategy through technology research and implementation across multiple industries globally. Prior to this role, Kfir was a Vice President serving as Head of Innovation and CTO for Hewlett-Packard (HP) Technology Services (a $13 billion business unit), HP CFS and EYP MCF Inc. His expertise lays in IT strategy, mission-critical converged infrastructure and complex systems applications. Over the last 20 years, he has provided strategic consulting services to financial, technology, energy and telecom clients, as well as public sector organizations worldwide. He has been directly involved in the development of the next-generation data center followed by DC 2.0, including pioneering cloud computing strategies and High Performance Computing (HPC) for dozens of Fortune 500 companies.

*Kfir is an IEEE Senior Member and a reviewer for PES transactions.

Building on top of existing software
Dennis Mancl

Track: Software Development
Armstrong Hall AR-148
9:00 AM – 9:50 AM

Abstract:
Most real-world software work is not new software, but software applications and components that are

built on top of legacy software. Most software tools and methodologies are aimed at the development of "green field" systems. Software development based on legacy software is a special software engineering challenge.

Legacy software techniques must address both technology and people issues. In most legacy-based software development, there is usually some important legacy system behavior that must be preserved in the new software system. Reusing legacy software can deliver a quality product at a lower cost than a total rewrite. But people issues are just as important. New development staff may be unfamiliar with the internal design choices in a body of legacy code, so it is necessary to do some work to reduce the learning curve.

Biography:
Dennis Mancl is a member of technical staff at Alcatel-Lucent. He has been involved in software development and software process consulting within Alcatel-Lucent. His main research interests are object oriented modeling, agile development, and reengineering legacy software. Dennis has M.S. and Ph.D. degrees from University of Illinois. He currently serves as ACM chair for the Princeton Chapter of ACM / IEEE Computer Society.

Cloud Security – A Practitioner Approach
Madhan Kumar Srinivasan

Track: Technology /Professional Development / Management
Armstrong Hall AR-144
9:00 AM – 9:50 AM

Abstract:
Cloud computing is growing as a destiny of future enterprise business computing due to its catchy technical and financial benefits. Cloud computing is a new hype and a buzz word in today's business computing world due to its pay-as-you-use model. Organizations are at the edge of a computing revolution which can change the way traditional enterprise IT is run currently. Even with all its benefits, medium to large businesses fear migrating to this computing paradigm because of the security nightmares associated with it. Organizations fear loss of control over their own data and are apprehensive about the cloud vendors' security measures for the same. At the same time, the amount of investment made by cloud vendors is also significantly high. In this scenario, unless CSP's (Cloud Service Provider) take some steps towards attaining more customers (at least the needy) in near future to come forward in using cloud services without the fear of present security vulnerabilities, they will be in the verge of another serious crisis. On the similar lines, this keynote explores 9 cutting-edge state-of-the-art cloud computing taxonomies for present cloud computing environment, under technical and process-related aspects. This presentation can be a better basement for any CSP to build and/or enhance their current cloud infrastructure more secure and sophisticated, which in turns provide mutual benefits to both the CSP and the customer. Also, this keynote gives a clear roadmap for the customers to evaluate the CSP's capabilities in terms of security aspects.

Biography:

Madhan Kumar Srinivasan is a Member of Education & Research Division, Infosys Limited, India. He is having years of experience in the fields of research, industry and academia. He is an IBM Certified Solution Adviser for Cloud Computing Architecture V2. He has published 16 refereed research papers covering vast range of top international publishers like ACM, IEEE & Springer, etc. He has participated and presented papers, keynote presentation, seminars, and workshops in 50+ international conferences worldwide. He has served as a technical reviewer and chair for many conferences (IEEE, ACM, Springer and the like) around the globe. Also, he has authored 5 chapters in 3 research text books published by Springer-Verlag Berlin Heidelberg, USA. He is an active member of many professional-bodies like Identity Research Group, International Association of Engineers, Computer Society of India and Teacher's Academy and has organized/contributed in 30+ events (conferences/workshops/symposia) in both International and National levels. His areas of expertise include Cloud Computing, Identity Management, Security, Object Oriented Systems, Semantic Web, etc. He has received "Tech Guru Award (under Cloud Computing category)" for the year 2012 from Infosys. And also, he is a recipient of the most prestigious "Inspiring Teacher Award" for the year 2010 from Teacher's Academy at Osmania University (Hyderabad, India).

10:00 AM – 10:50 AM Presentations

BYOD (Bring your own device) and the future of enterprise

Nauman Chughtai

Track: Infrastructure Software Development
Armstrong Hall AR-154
10:00 AM – 10:50 AM

Abstract:
Gartner predicts BYOD will become the top technology trend for 2013, with mobile devices surpassing PCs as the most common Web access tool. If you think the relationship between IT and business has been rocky in the past, BYOD will surely test the relationship further. Learn how to overcome some of these challenges to align IT with business.

Biography:
I have been developing and managing software systems for the last 18 years. My professional experience include building a wide range of software, from retail client server systems to cutting-edge development tools and ecommerce applications. Proven abilities as visionary, and driver of strategic business systems development that consistently have delivered outstanding results. Strong leadership qualifications coupled with "hands on" enterprise-wide architecture, development and technical project management expertise. Proven track- record of delivering multiple distributed, enterprise wide, and mission critical systems.

A BS in Computer Engineering from University of Central Florida and MBA from Rutgers University.

UX Design for Mobile Devices: An Introduction

Josephine M. Giaimo

Track: Software Development
Armstrong Hall AR-148
10:00 AM – 10:50 AM

Abstract:
Primarily discussing smartphones and touchphones, we'll look at: how to develop a mobile strategy; how to design for small screens; how to write for mobile; usability comparisons; and the future. We'll look at the results of international UX research, including that of Jacob Nielsen, Rabuka Ridiu, and others, on a variety of mobile devices. Why is mobile different? We'll discuss the "coming strategy shift" from mobile sites to apps. Or has it arrived already? Discuss iPad and Kindle usability, and the future of UX design for mobile devices.

Biography:
Josephine M. Giaimo, MS, is a User Advocate and principal of JG Interactive Designs. Josephine has performed user experience research on emerging technologies, including Web-based, email, elearning, computerized conferencing, and group decision support systems. From 1985 to 1989, with funding from the IBM User Interface Institute at the T.J. Watson Research Center (Hawthorne, NY), the Annenberg Foundation, and the US Office of Naval Research, Josephine's efforts were instrumental in the design of next-generation user interfaces at NJIT's Computerized Conferencing and Communications Center. Josephine performed original research that compared statistical and AI-based approaches for predicting project success, examining the associated UX-related factors and presenting her findings to INNS and AAAI. Josephine's later affiliations included AT&T Bell Labs (Middletown, NJ), the Illinois Institute of Technology Research Institute (Mount Arlington, NJ), Bellcore (Bell Communications Research, Piscataway, NJ), and Sarnoff Corporation (Princeton, NJ). Recently, Josephine performed user testing on ballot designs in New York City for a large non-profit organization. Josephine is currently a member of the NJ chapter of the UX Professionals Association, ACM, Treasurer of the Princeton Chapter of ACM, and the Princeton Joint Professional Chapter, ACM and IEEE Computer Science Society. She also serves as a Mentor for US FIRST Robotics, Mid-Atlantic Robotics, and Team 303.

Improved identity control and access management (ICAM) through continuous personally identifiable information (PII)

Chadd D. Carr

Track: Technology /Professional Development / Management
Armstrong Hall AR-144
10:00 AM – 10:50 AM

Abstract:
On a very basic level, network authentication is about understanding and controlling who is coming onto your network. Access control decisions are generally made by comparing on-time user credentials to an access control list. This authentication is accomplished by a variety of ways such as host-based passwords, network controls, CAC readers, or single-key biometrics.

The problem with this, as in most of today's antiquated network safeguards, is that it is not continuous. Once the user passes a one-time authentication, access is not re-validated until the user logs out or the system times out. ACRG is conducting research and develop of advanced biometric sensors and algorithms to continuously authenticate the individual through use of an all-key biometric keyboard/mouse combination.

Biography:
Chadd D. Carr is the chief technology officer (CTO) and executive vice president for Advanced Concepts Research Group (ACRG), an information technology (IT) research and development (R&D) and formal Test and Evaluation (T&E) service provider, headquartered in Gainesville, VA.

Mr. Carr joined ACRG in 2011 and was named to the CTO position later that year. Carr also serves as the Managing Director of ACRG's Security Sciences Laboratory with a primary focus of reducing future cyber security issues through research of root causes of modern cyber security deficiencies; fostering open collaboration and integration of emerging knowledge; and expediting time-to-market of emerging technologies, standards, and requirements. Carr is responsible for providing a broader range and more robust set of cyber threat intelligence tools essential for building a more secure cyberspace. He leads ACRG's cyber threat intelligence fusion cell, bridging near real-time deep web threat intelligence with traditional network defense strategies through collaboration with academic institutions, industry, and intelligence communities.

Prior to joining ACRG, Mr. Carr was vice president and chief information officer (CIO) for eDefense Incorporated. Before that, he served in the United States Air Force as a Special Agent with the Air Force Office of Special Investigations and Branch Chief, Information Operations and Investigations for Southwest Asia.

11:00 AM – 11:50 AM Presentations

Letting Your Data Out of the Vault
Glenn Jones

Track: Infrastructure Software Development
Armstrong Hall AR-154
11:00 AM – 11:50 AM

Abstract:
For years we made sure our sensitive data was protected in a data center partitioned off from the outside world by a firewall, and used intrusion detection systems (IDS) to audit any possible anomalous access to this data. In today's world, more is needed. We send employees into the field with laptops and smartphones that can access the data and we host the data in the internet cloud. Understanding the risks and the technological mitigations to these risks can go a long way to securing sensitive data even when it can't be locked up in a vault. This case study will examine techniques Mathematica Policy Research uses to protect data in the wild. Mathematica collects and manages a large volume of sensitive and personally identifiable information for government and other clients.

Biography:
Glenn Jones, who joined Mathematica Policy Research in 2004, is a Senior Systems and Security Architect with extensive experience in developing distributed information systems. His experience includes large-scale, web-based. mobile and client-server applications. In conjunction with developing systems, he is an expert in application security and leads the application security review team at Mathematica. He is a Certified Secure Software Lifecycle Professional (CSSLP) and holds an M.S. in computer science from DePaul University.

Leveraging SharePoint User Profiles to Enhance Effectiveness and Efficiency
Gary Clayton

Track: Software Development
Armstrong Hall AR-148
11:00 AM – 11:50 AM

Abstract:
When there is something important to share or do in a large and/or multi-faceted organization, how do you reach out to the right people? The answer is by having a readily accessible, easily expandable and well-maintained people directory and search capability. Accessibility and expandability are easily achieved and managed with SharePoint's User Profile facility, but data maintenance cannot be left to chance. A successful codeless approach for keeping data from multiple sources up-to-date will be demonstrated in this presentation.

Biography:
Gary Clayton is the Chief Operating Officer (COO) of Omicron Development, LLC, a provider of SharePoint and OSIsoft PI services. He received a BS in Electrical Engineering from Florida Institute of Technology and an MA in Organization Management and Development from Fielding Graduate University. Gary has over 30 years of experience in the Information Technology and business consulting fields and loves to help clients use technology creatively. He has been Senior Manager in a worldwide consulting firm, VP of Technology for a manufacturer and direct marketer of business products and Director of consulting and custom programming for the Americas for a logistics software company.

Gary's work has often pushed the limits of commercially available technology. As early as MS-DOS 3.1, Gary helped a major insurance client integrate personal computers into mission critical mainframe business applications. In the late 1980's, he used the recently released SYBASE client-server relational database to mine new business intelligence from existing mainframe files and create new business critical applications. Having worked directly with CTOs, CFOs and CEOs and having "gone deep" into the operations of over 70 companies, nearly everywhere he turns he sees interesting opportunities for the CMS, collaboration and codeless development capabilities of SharePoint.

Technology Law
Fred Wilf

Track: Technology /Professional Development / Management
Armstrong Hall AR-144
11:00 AM – 11:50 AM

Abstract:
We will discuss recent issues in technology and the law, including changes to intellectual property law and privacy. Bring your questions!

Biography:
Fred Wilf is a leading practitioner, speaker and author in the fields of technology, intellectual property, business and commercial law. Since 1985, Fred has been a trusted advisor and strategist for businesses of all sizes, from one-person start-ups to Fortune 100 companies, inclusive. Fred is a managing partner of Baer Crossey LLC (www.BaerCrossey.com), a small law firm that works with companies of all sizes, and individuals. Fred may be reached at fwilf@baercrossey.com and 215.636.9256.

2:00 PM – 2:50 PM Presentations

Network and server management using EMC Smarts
Douglas Ferguson

Track: Infrastructure Software Development
Armstrong Hall AR-154
2:00 PM -2:50 PM

Abstract:
With the increasing size and complexity of the enterprise network and IT data center, centralized monitoring and management has become even more critical.

The EMC Smarts software suite enables you to manage, configure, and monitor your servers, network, and virtual infrastructure to troubleshoot existing issues and prevent problems before they occur. The Smarts codebook will enable you to determine the root cause of problems instead of needing to read through pages of error messages.

The Smarts Network Configuration Manager enables you to deploy standard configurations on your network equipment and ensure that any changes made meet corporate standards.

Biography:
Douglas Ferguson is a Technical Support Specialist at EMC Corporation. He has over 20 years of experience supporting commercial and enterprise environments of all major market segments including telecoms, financials, infrastructure service providers, big pharma, defense and retail.

He currently specializes in supporting the Smarts suite of network management products. Prior to joining EMC in 2007, Douglas was a Staff Technical Marketing Engineer at Intel for 11 years, specializing in telephony communications software and embedded telecommunications systems. Previous experience includes design and testing of a inertial navigation devices at Kearfott Guidance and Navigation. Douglas is a graduate of Rutgers College of Engineering with a degree in Mechanical and Aerospace Engineering.

Getting Started with Meteor
Michael Redlich

Track: Software Development
Armstrong Hall AR-148
2:00 PM -2:50 PM

Abstract:
Meteor is an ultra-simple environment for building modern websites. What once took weeks, even with the best tools, now takes hours with Meteor. The web was originally designed to work in the same way that mainframes worked in the 1970s. The application server rendered a screen and sent it over the network to a dumb terminal. Whenever the user did anything, that server re-rendered a whole new screen. This model served the Web well for over a decade. It gave rise to LAMP, Rails, Django, PHP. But the best teams, with the biggest budgets and the longest schedules, now build applications in JavaScript that run on the client. These apps have stellar interfaces. They don't reload pages. They are reactive: changes from any client immediately appear on everyone's screen. They've built them the hard way. Meteor makes it an order of magnitude simpler, and a lot more fun. You can build a complete application in a weekend, or a sufficiently caffeinated hackathon. No longer do you need to provision server resources, or deploy API endpoints in the cloud, or manage a database, or wrangle with an ORM layer, or swap back and forth between JavaScript and Ruby, or broadcast data invalidations to clients.

This seminar will provide a brief overview of Meteor, discuss how to get started with this relatively new framework, and review a few source code examples.

Biography:
Michael Redlich is a currently a Senior Research Technician at a petrochemical research organization in Clinton, New Jersey with extensive experience in developing custom web and scientific laboratory applications. Mike also has experience as a Technical Support Engineer for Ai-Logix, Inc. where he provided technical support and developed telephony applications for customers. He has been a member of the Amateur Computer Group of New Jersey (ACGNJ) since 1996, and currently serves on the ACGNJ Board of Directors as President. Mike has also been facilitating the monthly ACGNJ Java Users Group since 2001. His technical experience includes object-oriented design and analysis, relational database design and development, computer security, C/C++, Java, and other programming/scripting languages. Mike has co-authored a number of articles with Barry Burd for Java Boutique. He has also conducted seminars at Emerging Technologies for the Enterprise since 2008, Trenton Computer Festival (TCF) since 1998, TCF Professional Conference since 2006, and other venues including Princeton Java Users Group, Capital District Java Developers Network, and New York Software Industry Association (NYSIA) Java Users Group. Mike serves as a Coordinator of the company's Science Ambassador program where he has conducted numerous science demonstrations and served as a science fair judge for various elementary schools in central New Jersey. Mike holds a Bachelor of Science in Computer Science from Rutgers University.

Career planning and the new Normal - Life long continuous learning
Ben John

Track: Technology /Professional Development / Management
Armstrong Hall AR-144
2:00 PM -2:50 PM

Abstract:
Open Social Learning is an emerging research area that deals with leveraging open content on the web and networking the learners to make the learning experience efficient. This talk is to discuss career planning and how life long learning can be effective these days leveraging the power of collective intelligence. Online Education has reached its limits and currently called as "Conventional online learning". The evolution of Massive Open Online Learning (MOOC) in the last two years is reaching worldwide and millions of learners are learning through these platforms. We will discuss how to best use of so all the open learning resources available these days and make it effective to boost the career planning.

Biography:
Ben John currently works as Head of Engineering at AppNexus,leading world class engineering teams to build most powerful, open and customizable advertising technology platform. Ben was recently at Experian Cheetahmail as VP of Technology, leading Global Product Development teams building massive cross channel marketing platforms. Prior to Experian, Ben was at Kaplan as VP of Engineering &

Architecture, building all aspects of eCommerce, Content Management Systems, Learning Management Systems, Portals, Social Networking, Big Data and Data Warehouse systems.

Ben is currently pursuing his PhD research work in "Open Social Learning" using Semantic Web, Data Mining and Neural Networks. Ben is passionate about life long continuous learning, and enjoy helping engineers to plan and build their careers.

3:00 PM – 3:50 PM Presentations

Converged Infrastructure (CI)
Balan Gothandaraman

Track: Infrastructure Software Development
Armstrong Hall AR-154
3:00 PM – 3:50 PM

Abstract:
Converged Infrastructure (CI)– At the end of the talk, the listeners will go with a rich understanding of Converged Infrastructure and its applicability in their IT environment. Define Converged Infrastructure, discuss available vendor products, compare and contrast these products - vBlock, FlexPod, PureSystems, vStart, UCP Pro, etc. How to evaluate products; use cases for CI products within an IT environment; multi-tenancy in CI; Security implications – Platform, Network, Access and Data; Data Center in a Box; What you see and what you don't see. Cloud, Virtualization and CI.

Biography:
Balan Gothandaraman is the Chief Technology Architect at Visa Inc with over 25 years of experience in the industry. Formerly, he was the Global Head of Technology at JPMorganChase. Currently, he has global responsibilities for business technology planning and direction; bringing in new technology solutions to the benefit of Visa business; creating roadmaps and standards; evaluation of potential new business alignments. In former roles, Balan provided executive leadership to globally located divisions with responsibilities for architecture, engineering and support of business applications and infrastructure. Balan holds a Masters in Mathematics, a Masters in Computer Science and an MBA. He is an alumnus of CIO Leadership Institute – an MIT Executive Program. Also, he holds Series 7 and Series 65 Financial Industry Licenses. He is a Certified Information Systems Security Professional (CISSP). In the early 90s, he was part of the System V, AIX, HP-UX kernel development teams at different times. He is on LinkedIn. Balan has been a member of IEEE for nearly two decades.

C# .NET Programming
Donald Hsu

Track: Software Development
Armstrong Hall AR-148
3:00 PM – 3:50 PM

Abstract:
With outsourcing and downsizing, you may think that there are no programming jobs, but in fact the opposite is true! From financial computing, web design, iPhone apps to gaming, Java has been the programming language of choice. Four million Java programmers did applications for cell phones, PDAs, web servers and databases. Since 2004, C# (C sharp) is quickly gaining momentum as a preferred language. Dice.com lists 2,289 jobs for Java, and 1,113 jobs for C# (up from 830 last year)! Salary ranged $75,000 to $120,000. The C# .NET Programming will be discussed and "hands-on" exercises demonstrated. Show up and learn!

Biography:
Donald Hsu, PhD is a professor at Dominican College and President of the Chinese American Scholars Association (CASA). He trained/taught 70 subjects Accounting to Unix, at 37 firms to 10,400+ clients/students. Clients/students worked at: AT&T, Bank America, Goldman Sachs, IBM, JPMChase, Mercedes Benz, Microsoft, Morgan Stanley, Sony, Toyota, Verizon, etc. Since 2006, CASA organized and ran 13 successful E-Leader conferences in Asia and Europe, http://www.g-casa.com. He traveled to 71 countries in Africa, Asia, and Europe for international business. Don's profile is here, with 3,760 contacts, http://www.linkedin.com/pub/donald-hsu/0/15/A14.

Career Management Skills-A few Tips to Survive & Thrive in 21st Century Work Place
Bala Prasanna

Track: Technology /Professional Development / Management
Armstrong Hall AR-144
3:00 PM – 3:50 PM

Abstract:
Do you remember your grandmother's story about how the kingdom was lost, all because of a horseshoe nail? Great things in life can be accomplished through a series of simple and small things brought together. The importance of work/life balance cannot be overstated. The speaker discusses leadership, conflict resolution through negotiation, office politics, finances, self-management, networking, handling criticism, need for making right choices and volunteerism through anecdotes and interactive discussions.

Biography:
Bala Prasanna joined IBM in May 2005 as a program manager. He began his career as an assistant professor in SUNY University and then worked at AT&T Bell Labs for over 20 years in several job positions. As manager, he is active in many employee counseling and support organizations. Bala Prasanna is IEEE Region 1 Treasurer, and past chair of the IEEE Jersey Coast section among many volunteer positions. He is a senior member of the IEEE. He has published and presented on software reliability engineering methodology in IEEE Communications, given presentations at many universities discussing the need and value of career & life management skills. He is a recipient of IEEE Millennium and IEEE Region awards for his leadership.

4:00 – 4:50 PM Presentations

The IVI IT-CMF Framework - Visualizing IT
Thomas Costello

Track: Infrastructure Software Development
Armstrong Hall AR-154
4:00 PM – 4:50 PM

Abstract:
Every CIO attempts to define their environment by creating their own view of IT – typically a deconstructed view based on either organizational structure of delivery capabilities and functions. After investing significant time building of this elaborate view, CIO's still have a difficult time communicating with CFO's and Business Leadership as to the complexity of ongoing operations, new project requests, and key investments areas of IT.

The IVI IT-CMF is a comprehensive framework being used as a global standard for describing the IT environment. Created by Martin Curley (Global CIO of Intel) and now being cultivated and evolved by the Innovation Value Institute in Ireland, the IVI IT-CMF is being adopted across the EU and is being evaluated by US Federal agencies, state governments, and institutions as a standard for communicating the breadth, capabilities, and future growth opportunities for IT organizations.

The IVI-CMF will be profiled in an upcoming issue of IEEE's IT Professional magazine as one of the top 4 frameworks in use by IT organizations around the world. Thomas Costello (author of CIO Wisdom 2, author of CIO Corner for IT Professional magazine) will provide an overview of the IVI IT-CMF, along with examples of its use, benefits, challenges, and a "how-to" for connecting with the IVI teams in Ireland and/or US chapters.

Biography:
Mr. Costello is the founder/owner of UpStreme, Inc. – a Philadelphia area based business and technology management consulting firm specializing in Enterprise Strategy, Software Logistics, and

Executive Education. He has advised both private and public sector organizations ranging from The U.S. Department of State and established top Fortune 500 organizations to early-stage/pre-funded startups.

Mr. Costello currently acts as a board member for various organizations, including a seat on IEEE's Advisory Board for IT Professional Magazine, the CIO Institute, a member of the Strategic Management Society (SMS), the Institute for Management Consultants (IMC), and more.   Mr. Costello is co-author and editor of CIO Wisdom II published by Prentice-Hall, author of CIO Corner for IT Professional magazine, contributing editor to Computing Now, and is a contributor to IT World magazine.

Programming with the SharePoint Object Model
David Soll

Track: Software Development
Armstrong Hall AR-148
4:00 PM – 4:50 PM

Abstract:

SharePoint provides a rich object model allowing developers to extend the capabilities of the platform. Unfortunately, due to the complexity and feature rich nature of SharePoint, getting started writing code for the platform can be daunting. Mr. Soll has designed a short presentation to jump-start programmers into the world of SharePoint development. This presentation includes a working code example that will also be available for download after the conference.

Bio:

David Soll is the CTO and President of Omicron Development, LLC. He is responsible for the overall technical direction and technology solution set provided by Omicron. David received a BS in Electrical Engineering from Drexel University and has been working in Information Technology for over 25 years, more than 20 of them with Omicron. He is currently the Vice-Chair of the Princeton Central Jersey chapter of the IEEE Computer Society and is a senior member of the IEEE. David is also the past Chairman and current board member of the Princeton chapter of the ACM and a senior member of the ACM. David has a long history of innovation working with Microsoft. He has worked with virtually every version of operating system that Microsoft has produced and has given many presentations on them. He received a prestigious IEEE Region 1 Award from technical contributions to information technology. He also is the founder and current chairman of the IEEE/ACM Information Technology Professional Conference held in conjunction with TCF.

Making Architecture and Standards Compliance Practical
Elliot Chikofsky

Track: Technology /Professional Development / Management
Armstrong Hall AR-144

4:00 PM – 4:50 PM

Abstract:
How can we prove that our systems actually follow the architectures and standards they are supposed to? Architecture compliance is difficult to assert with confidence, hard to prove convincingly, and too easy to disavow. Through the use of the Architecture Compliance and Requirements Traceability (ACART) process, we have learned a lot about the nature of architecture and standards conformance and how companies, government agencies, and contractors can assert and demonstrate compliance to auditors and regulators in a practical and cost-effective way. The methods and procedures that have emerged apply to many kinds of architecture-based requirements and standards for systems, including the health care regulatory compliance (HIPAA, PSQIA), U.S. DoD Business Enterprise Architecture (BEA), FDA quality system regulations, and security architectures.

Biography:
Elliot Chikofsky is EM&I Fellow at the Engineering Management & Integration firm. He is Vice Chair of the Technology and Conferences Board of the IEEE Computer Society, and chairs the Conference Activities Committee. He is past-chair of the IEEE Technical Council on Software Engineering and served as associate editor-in-chief of IEEE Software magazine, where he founded its software management column. He has advised on IT investment and portfolio management, reengineering, enterprise architecture, and systems management for various U.S. defense agencies, the Federal Aviation Administration, IBM's AD/Cycle initiative, and many corporations and industrial enterprises. He is well-known for his work on reengineering, reverse engineering, software tools, and CASE environments and repositories. Chikofsky chairs the Reengineering Forum industry association and teaches commercial IT portfolio management seminars for Intervista Institute. He also teaches information technology, business management, and engineering technology at both Northeastern University in Boston and the University of Phoenix, and is Program Coordinator for Computer Engineering Technology at Northeastern's College of Professional Studies.

Abstracts & Biographies – Saturday

10:15 AM – 11:10 AM

Provisional Patents

Hay Yeung Cheung, Myers Wolin, LLC

Track:
Science Complex room PHY-117
10:15 AM – 11:10 AM

Abstract:
Since June 8, 1995, the United States Patent and Trademark Office (USPTO) has offered inventors the option of filing a provisional application for patent which was designed to provide a lower cost first patent filing in the United States. Applicants are entitled to claim the benefit of a provisional application in a corresponding non-provisional application filed not later than 12 months after the provisional application filing date. This workshop will guide you through the steps of preparing a provisional patent application for your invention.

Biography:
Hay Yeung Cheung is a senior associate at Myers Wolin, LLC in Morristown, New Jersey. He is a Registered Patent Attorney with the United States Patent and Trademark Office, and is admitted in California, District of Columbia, and the Supreme Court of the United States.

11:20 AM – 12:15 PM Presentation

Risk-based Security management in a Compliance-driven Culture

Shahid N Shah

Track: ITPC
Science Complex room PHY-117
11:20 AM – 12:15 PM

Abstract:
Security and Regulatory Compliance aren't the same thing – but they're often confused. When you're

working in a government, healthcare, or financial environment there's a tendency to think that if you're FISMA-compliant or HIPAA-compliant or any other X-compliant that you must have good security.

However, sophisticated risk management and real security don't have much to do with compliance and you can actually great security and be non-compliant with regulatory requirements as well be fully compliant but not secure. This talk, led by Security guru Shahid Shah, will talk about how make sure risk-based security management is properly incorporate into compliance-driven cultures.

Biography:
Shahid Shah is a Government 2.0, Health IT, Medical Device Integration software expert with over 22 years of technology strategy, software engineering, entrepreneurship, speaking, and writing experience.
http://www.healthcareguy.com/bios/

12:25 PM – 1:20 PM Presentation

Identity Management as an Enabler for Humanitarian Assistance and Disaster Recovery Operations
Adam C. Firestone

Track: ITPC
Science Complex room PHY-117
12:25 PM – 1:20 PM

Abstract:
Capabilities inherent to United States military forces offer some of the most effective responses to disasters and other events requiring massive humanitarian aid globally available. These capabilities include the ability to move massive amounts of food, shelter materials, medicines and other basic needs on short notice anywhere on the planet along with medical and operational specialists. Unfortunately, the delivery of supplies and personnel to where they are most urgently needed is often frustrated by an inability to effectively share information with coalition partners, local government agencies and non-governmental organizations (NGO). The military possesses systems expressly designed to plan and coordinate the status, location and timely arrival of people and materiel. However, these systems are often unavailable in the context of a polyglot humanitarian assistance/disaster (HADR) effort for reasons of data and operational security. Modern identity management technologies that match user attributes against centrally managed access control policies to ensure that only the right people have access to the right information offer the possibility of far more efficient humanitarian operations by allowing military systems to coordinate relief efforts among multiple, disparate organizations. This presentation will describe the HADR problem space, explain the technical challenges with respect to identity management and offer solutions that leverage powerful open standards such as the eXtensible Access Control Markup Language (XACML) and Security Assertion Markup Language (SAML) as well as open source software implementations.

Biography:

I am currently the Director of Defense and Government Solutions at WSO2, Inc., a global open source middleware company. I work with developers, architects and C-Level executives to increase the value offered by open-source software in general and WSO2 products specifically to the military and defense communities. Additionally, I ensure that product and technology roadmaps retain and develop features situated to support emerging defense and government requirements. Previously, I held principal engineering positions at Science Applications International Corporation (SAIC) where I teams responsible for the design, development and fielding of command and control, planning and weapon systems that spanned domains from combat engineer operations to amphibious maneuver warfare to senior leadership information management tools, unmanned aerial systems and precision guided munitions. My teams have advanced best practices in the defense and government domains including Agile development, the integration of open source software and orthodox SOA principles for both development and systems engineering. Most recently, I was responsible for leading a team charged with the complete redesign and re-architecture of a major precision guided weapon program and the design of a portable integration platform for joint unmanned systems. Adam has also been involved in technical training as both an instructor and as a curriculum designer, and has taught systems engineering courses since 2006. I am a former United States Army officer, and also possess a legal background, holding a Juris Doctorate degree, and having practiced law in New York for several years. I am a graduate of Yale University, Brooklyn Law School and the Systems and Software Consortium.

1:30 PM – 2:25 PM Presentation

The roles of Human-Human Interfaces when producing Human Interfaces

Richard Herring

Track: ITPC
Science Complex room PHY-117
1:30 PM – 2:25 PM

Abstract:

When creating a successful software Human Interface, a project team must manage technical details and manage the critical "Human-Human interfaces" inherent to teams. Some of these include the interfaces between: "Requirements Gatherers" and "Target Users"; "Product Sponsors" and "Implementation Teams"; and "Designers" and "Implementation Teams". This talk will outline practices and techniques that have proven effective for eliciting requirements from target users and strengthening communication between Designer, Implementation and Sponsoring groups. It will also discuss the multiple roles that User Experience (UX) professionals play and the impacts of new software development models on producing Human Interfaces (Lean UX, Agile Development).

Biography:
Dick Herring is a User Experience (UX) professional who works across organizational boundaries to create digital products that meet business demands. He provides interactive solutions for market-leaders in finance, telecommunications, education, and defense sectors. His specialties include user research, user centered design, quantitative methods and usability testing. He earned a Master's and Ph.D. in Experimental Psychology from the University of Iowa in Iowa City, Iowa.

3:40 PM – 4:35 PM Presentations

Social media integration & analytics
Siva Krishnajee

Track: ITPC
Science Complex room PHY-117
3:40 PM – 4:35 PM

Abstract:
Social media is changing the world in terms of communication and how enterprises, organizations and individuals influence each other. Social media provides information about individuals & groups on how they interact and exchange information between each other. Social media integration & analytics will help enterprises to assess their market segments, competitors, current customers and prospects. Understanding the market behavior will help them to find out the new business opportunities, disruptive innovations, positioning of the products and better serve their customers. The session will contain details about emerging trends, analysis of social media and use cases for the same.

Biography:
Siva Krishnajee has a strong background in enterprise software with the emphasis on Enterprise Application Integration, Web Services, Service Oriented Architecture and ERP / CRM's. He manages the adapter product line, OEM partnership and outsourcing for Information Builders Inc (IBI). Prior to working with IBI, he was a ERP / CRM consultant, customized and implemented supply chain solutions for fortune 500 companies. He is a graduate of Strayer University with MBA in information systems.

3:40 PM – 4:35 PM Presentations

An Introduction to Agile for Engineers
Carol Glennon

Track: ITPC
Armstrong Hall room AR-124
3:40 PM – 4:35 PM

Abstract:

This session reviews the origins of Agile as a development methodology and dives into the day to day workings of Scrum as an Agile framework. Attendees can expect to gain a working understanding of terms and functions that are common to any team practicing Agile and the Scrum framework. There will also be a portion dedicated to implementation of Agile within a development team and common issues during implementation.

This session is useful for IT development managers and engineers or developers who are just beginning to use Agile or are planning to join a team in the future that uses Agile.

Biography:

Carol Glennon is a scrum master and a Stanford University Certified Technical Project Manager. She is a Senior Technical Infrastructure Engineering Product Manager for Wayfair LLC, an active member in the FBI's InfraGard program and a member of IEEE-USA's Communications Committee, where she serves as Social Media and E-Books editor.

ITPC and TCF Wireless User Instructions

Configure your wireless software to access the **`Guest-at-TCNJ3`** wireless network (a.k.a. SSID). Some wireless software won't show unencrypted wireless networks by default so you may need to manually enter the name. Also note that the name is case sensitive.

Once you are connected/associated with the guest wireless network, launch a web browser and try accessing any website. Your browser should be redirected to the wireless login page. If not, try clicking your browser's reload/refresh button.

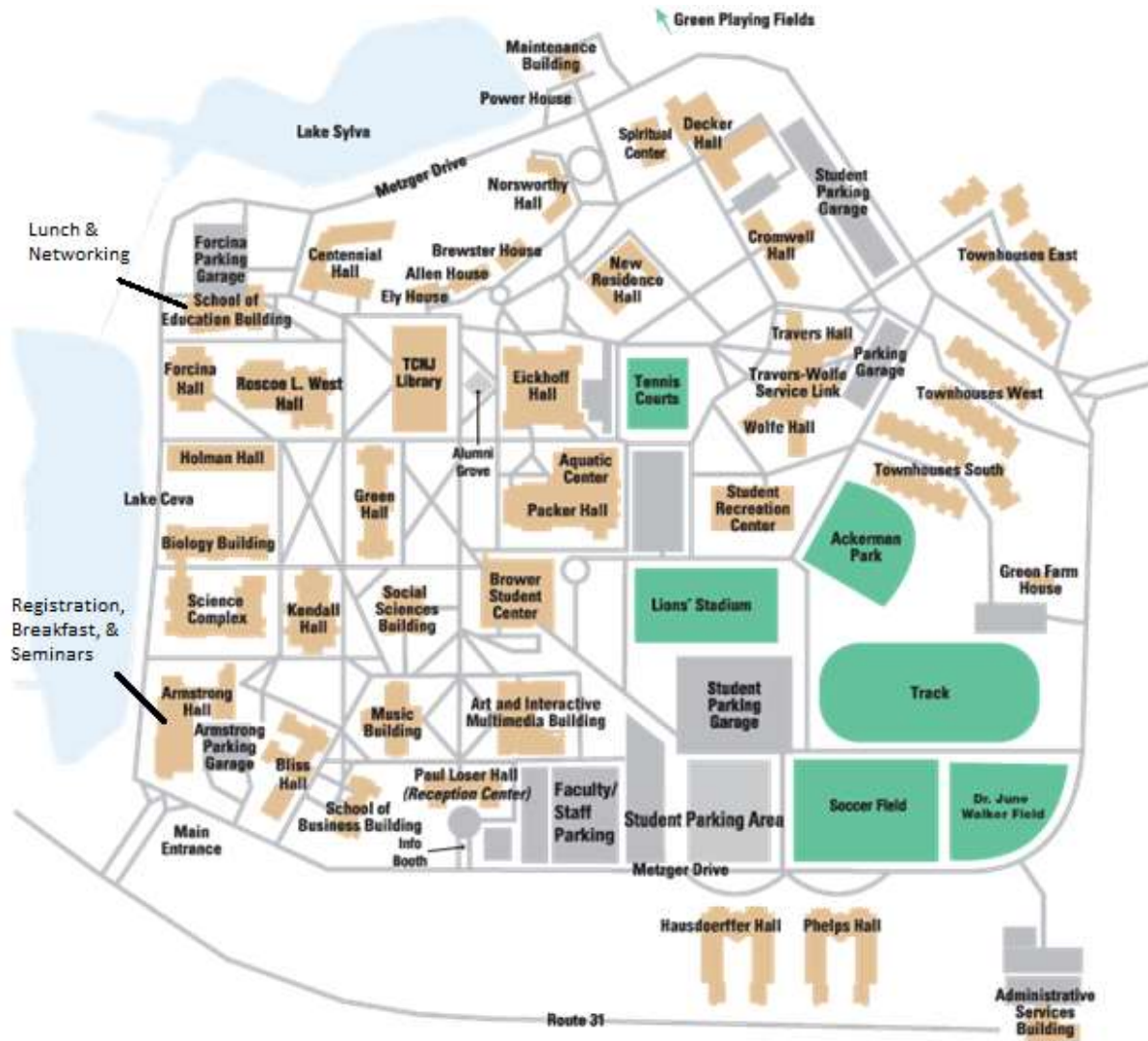Once you see the login page, enter the following login and password to gain access to the Internet.

> Login name: `guest535`
> Password: `3eze5utu`

After successfully logging in, you will be redirected to the page that you originally requested. You should now have access to the Internet.

NOTE: No wireless encryption is used on the guest network. You should use encrypted protocols such as HTTPS, SSL or SSH when accessing sensitive information over this wireless network.

TCNJ Campus Map

The 38th **TCF** TECH TREK COMPUTER FESTIVAL — The College of NJ, Ewing, NJ

TCF-2013 Saturday Talks & Forums — 16 March 2013, 9am—5pm, Indoor Flea Mkt opens 9am

AR = Armstrong Hall   SC = Science Complex Bldg.   PHY = Physics Area of SC Bldg.

Armstrong Hall & PHY

Saturday	AR-128 Microsoft	PHY-117 IT-PC	AR-144 Robotics	AR-148 Apple	AR-102 Technology & Games	AR-114 Education & STEM	PHY-116 Hardware	AR-124 Software/ Apps	AR-106 Arduino Workshop	AR-156 OOP University	PHY-128 Amateur Radio	Exhibits
10:15am to 11:10am	C# .NET Programming D. Hsu	Provisional Patents H. Cheung	Autonomous UAV D. Bluman, K. Mittler, C. Kedmenec, & J.Thomas	Discover iPad D. Marra	TCNJ Micromouse J. Eger	Getting Started: PCs/Pads, Internet & Digital Photography H. Hinitz	GPS Secrets 2013 C. Lewart	Developing Apps for Android Phones and Tablets B. Burd	Introduction to Arduino (Presentation)	Introduction to Java (Workshop) M. Redlich	Ham Cram 101 Ham Radio License Exam Preparation Cram Course Ham Cram Sessions begin at 10:15am and 11:20am (50-minutes each) Practice Exam given at 1:30pm Walk-in Real Exam given at 3:40pm Conducted by the David Sarnoff Radio Club www.n2re.org	Special Exhibits and Demos Digital Photo Exhibit 3D Printer/ RepRap Demos by IEEE Princeton / Central Jersey Section Historic Computers from MARCH in Room AR-187 Clubs IEEE Micromouse Contest (Starts at 12:15pm by Rm. PHY-101)
11:20am to 12:15pm	Microsoft Office 2013 D. Soll	Risk-based Security Management S. Shah	A Robot Conductor T. Nakra	OS X Mountain Lion D. Marra	TCNJ Solar Boat T. Wardlow	Updated Guide to Best Web Sites & Search Engines E. Kaplan	Homebrew Projects G. Heron		Hands-On with Arduino (Limited Space; Bring Your Laptop!)			
12:25pm to 1:20pm	Building Apps for the New Windows Store D. Isbitski	Identity Management for Humanitarian & Disaster Recovery A. Firestone	LEGO MINDSTORMS Robotics D. Ferguson	iBooks, Textbooks & Authoring D. Marra	Sensor Communication by Energy Harvesting J. Jesson	How do Search Engines Work? M. Streitman	SATCOM on the Move A. Jepson, K. Christman, L. Lisoney, & J. Murduca	Internet Job$$$ D. Hsu		Introduction to C++ M. Redlich		
1:30pm to 2:25pm		Role of Human-Human Interfaces R. Herring	Robotics - An Introduction O. Hernandez	iLife: Photos, Movies, Music and More! D. Marra	Latest Technology in Console Computer Games R. Amidon	Keep Your Computer Bug Free R. Kessler	Build A Wireless Access System D. Ferguson	Operating a Business Entirely in the Cloud J. Mikusi	Arduino Open Hack; Makerbot Presentation; etc.	Advanced C++ M. Redlich		
2:35pm to 3:30pm	*Featured Keynote Speaker:* Frank O'Brien, Solar System Ambassador for NASA's Jet Propulsion Laboratory, will talk on "Roving Robots on Mars: The Journey of Curiosity" ☀, in Room Physics-101											
3:40pm to 4:35pm	Introduction to Windows 8 D. Soll	Social Media Integration and Analytics S. Krishnajee	A Fire Fighting Robot R. Richardson	iWork: Impressive Docs, Spreadsheets & Presentations D. Marra	History of Mobility and Mobile Data L. Judice	The New Space Age G. Bunk	Smart Electrical Power Systems A. Grullon	Introduction to Agile for Engineers C. Glennon	Controlling the World with Arduino P. Bergsman	Introduction to OOP Design Principles M. Redlich		

2013 Trenton Computer Festival — Saturday, 16 March 2013

Focus on Robotics: Seven robotics-oriented talks plus a keynote on the Roving Rovers on Mars: The Journey of Curiosity. Along with the Micromouse competition and the *FIRST* competition. (☀ Keynote co-sponsored by IEEE-PCJS Robotics and Automation Society.)

Object-Oriented Programming University: Offers a one-day hands-on introduction to object-oriented programming by Mike Redlich, President of ACGNJ.

Events Co-located on Campus with TCF:

FIRST Mid-Atlantic Robotics District Competition: TCF Attendees are invited to visit a *FIRST* district robotics competition being held in the TCNJ Student Recreation Center. Admission to the competition is free and open to the public.

HackTCNJ Hackathon. See students hack their best app and compete for fame, glory and prizes at Hack TCNJ 2013! Located in the TCNJ Brower Student Center. For Info: http://hacktcnj.com

NASA/JPL-Caltech/MSSS

2:35pm - Featured Keynote Speaker: **Frank O'Brien, Solar System Ambassador for NASA's Jet Propulsion Lab, in Room Physics-101**

TCF'13 Saturday Evening Banquet
Featuring a talk on "Robot Explorers: Voyager & New Horizons" by Aram Friedman, Former Director of Engineering, Hayden Planetarium. 6:00pm - New Education Bldg., Rm. 212 Admission: $25 Tickets available on the TCF website www.tcf-nj.org (by March 10th). Pick up tickets on Sat. at VIP/Speakers desk.

Friday - ITPC 2013
The 8th TCF Information Technology Professional Conference 8:30am to 5:00pm in Armstrong Hall Friday, March 15, 2013 (Conference registration required.) Info & Fees: http://tcf-nj.org/pc

www.tcf-nj.org

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