

2014 IEEE/ACM TCF Information Technology Professional Conference (TCF Pro IT)

Program Book

Date: Friday, March 14, 2014 to
Saturday, March 15, 2014
Time: 8:00AM to 5:00PM
Location: The College of New Jersey,
Ewing



Sponsors:



Princeton / Central Jersey Chapter of the IEEE Computer Society



Princeton Chapter of the Association for Computing Machinery



IEEE Region 01- Northeastern USA



IEEE Region 02 - Eastern USA



Princeton / Central Jersey Section of the IEEE

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Program Committee

Conference Chair: David Soll
Program Chair: Annette Taylor
Conference Treasurer: Josephine Gaimo

**Thank you to our Sponsors, Speakers, Volunteers and
Participants!**

**Also, thank you to the Trenton Computer Festival and
the College of New Jersey.**

Conference Logistics

Dear Participants,

Welcome to this year's 9th Annual IEEE/ACM Information Technology Professional Conference at TCF! We have an exciting program this year and are looking forward to seeing you.

Schedule:

The ITPC Conference schedule is posted on our web site at:
<http://princetonacm.acm.org/tcfpro/pc2014.html>.

Our conference presentations are scheduled to begin 8:30 AM to 5:00 PM on Friday, March 14, 2014 and include extended sessions at 10:15 AM to 5:00 PM on Saturday, March 15, 2014 combined with the Trenton Computer Festival.

Registration:

Registration is in Armstrong Hall (AR) on Friday at 8:15 AM in the Reception area in front of Room 154. Your badge will be good for both Friday and Saturday sessions. Your registration also includes general admission to the Trenton Computer Festival.

On Friday, a continental breakfast will be available from 8:15 AM until 9:00, prior to the start of the presentations in Room 154.

Presentations:

All Friday presentations will be given in Armstrong Hall (AR) rooms 154, 144 and 148. All Saturday presentations will be given in the Education Building, Room ED-211 or ED-209. The talks will be in classrooms equipped with a projector with a VGA style connector. We will also have a spare projector, just in case of a failure. Each presentation is 50-55 minutes and the audience averages 30 people including a diverse mix of practicing professionals, educators, interested engineers and students.

Lunch:

Lunch will be served on Friday, March 14, 2014, at 11:45 AM to 1:30 PM in Eickhoff Hall, 1855 Room. We will walk over as a group so that nobody gets lost, but it's a short enough walk, that shouldn't be a problem. Our lunch will include a facilitated networking session as well as some door prizes.

TCF Keynote:

A TCF keynote address by Joseph Salvo, Manager of the Complex Systems Engineering Laboratory, GE Global Research will be presented on "The Internet of Things (IoT)", on Saturday, 2:35 PM to 3:30 PM in the Education Building, ED-115.

Banquet:

There is a Banquet on Saturday evening at 6:00 PM and you are invited! We hope to see you there! The featured presentation is “The Industrial Internet Meets Cloud Manufacturing” by Joseph Salvo. It will be held in Eickhoff Hall, 1855 Room. Advanced reservations are requested. The cost for the banquet is \$15 for speakers and \$25 for other attendees. Payments are accepted and required at registration. Please make your reservation as soon as possible by sending an email to: Al Katz alkatz@tcnj.edu.

Maps:

The TCF TCNJ Campus map can be found at:

http://tcf.pages.tcnj.edu/files/2013/10/TCF14_Campus_Map_for_Web_Site_r01W.pdf

The ITPC Armstrong Hall floor map can be found at: <http://princetonacm.acm.org/tcfpro/>

Parking:

Parking for Friday, March 14, 2014 is in the Armstrong Hall Garage Lots 1 & 2. Parking for Saturday is in Parking in Forcina Garage, Lots 17 & 18.

Lodging:

Please refer to the TCF website: <http://tcnj.pages.tcnj.edu/about/campus-info/hotels/> for more information. There is a group discount.

Thank you for your participation,

Presentation Schedule – Friday

Friday March 14, 2014 Talk Tracks for ITPC-2014			
Registration and Continental Breakfast Armstrong Hall			
Time	Technology and Infrastructure AR-154	Software Development AR-148	Professional Development / Management AR-144
9:00 AM – 9:50 AM	Real World Considerations for Adoption of Commercial Cloud Service Platforms <i>Frederick B. Kauber</i>	Learning from Others: Top 10 Mistakes in Web Design, IA, and Application Design <i>Josephine Giaimo</i>	Agile and Offshore Maturity Models <i>Mike McGonagle</i>
10:00 AM – 10:50 AM	Data Analysis with R for IT Professionals <i>Charles Mutigwe</i>	Refactoring: how to improve the structure of existing software <i>Dennis Mancl</i>	Your Career – Don't Let it Manage You A few Tips to Manage Career Security <i>Bala Prasanna</i>
11:00 AM – 11:50 AM	In the use of Mesh networks with version control to maintain configurations in Linux systems <i>Isiah Schwartz</i>	Should I Build With Open Source Software? <i>Joe Levy</i>	Introduction of ethics in systems design and architecture development <i>Sabatini Monatesti & Stephen Beller</i>
12:00 PM – 1:20 PM	Lunch Break ☺ Eickhoff Hall, 1855 Room [Facilitated Networking]		
1:30 PM – 2:20 PM	IT Security: a practical approach <i>Ivan Dell'Era</i>	Getting Started with MongoDB <i>Michael Redlich</i>	Insider/Outsider Cyber Threat Identification and Forensics; Even if the Insider is an Administrator <i>Stephen W. Leibholz & Dr. Tom Martin</i>
2:30 PM – 3:20 PM	Mobile Computing in the Large Enterprise <i>Lorraine M. Herger, Carlos A Fonseca, & Drew Wyskida</i>	Designing the User Experience (UX): An Introduction to Data-Informed Design <i>Josephine Giaimo</i>	Systems Engineering for IT and Software Engineering Professionals <i>Brian Berenbach</i>
3:30 PM – 4:20 PM	Applying Process Mining to IT Big Data <i>Richard Eng</i>	Getting Started with Meteor <i>Michael Redlich</i>	Enlightening Technical Leadership <i>Kartik Subbarao</i>

Presentation Schedule – Saturday

Saturday March 15, 2013 Talk Tracks for ITPC-2014	
Time	ITPC
10:15 AM – 11:10 AM	You're Not in Kansas Anymore – The Strange Physical Layer World of Industrial Ethernet <i>Mike Nager</i> Education Building, room ED-211
10:15 AM – 11:10 AM	Enlightening Technical Leadership <i>Kartik Subbarao</i> Education Building, room ED-209
12:25 PM – 1:20 PM	Professional Development - Continuing Education and Skills Development <i>Susan Schueller</i> Education Building, room ED-211
1:30 PM – 2:25 PM	The Do's and Don'ts of Data Visualization: How to avoid being lead astray by your data and How to create a winning strategy <i>Jennifer Shin</i> Education Building, room ED-211
2:35 PM - 3:30 PM	Keynote The Internet of Things (IoT) <i>Joseph Salvo, Manager of the Complex Systems Engineering Laboratory, GE Global Research</i> Education Building, room ED-115
3:40 PM – 4:35 PM	What the Internet of Things Will Mean to CIOs <i>Nauman Chughtai</i> Education Building, room ED-211
6:00 PM	Banquet The Industrial Internet Meets Cloud Manufacturing <i>Joseph Salvo</i> Eickhoff Hall, 1855 Room

Abstracts & Biographies – Friday

9:00 AM – 9:50 AM Presentations

Real World Considerations for Adoption of Commercial Cloud Service Platforms

Frederick B. Kauber

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

9:00 AM - 9:55 AM

Abstract:

Description: As the adoption of cloud computing as a ubiquitous utility continues unabated, it is easy to lose sight of the fact that the Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) services offered by commercial providers such as Amazon, Rackspace and others are in fact proprietary platforms with different architectures and corresponding strengths, weaknesses and tradeoffs. This presentation will provide a comparative view of leading cloud platform provider architectures as well as real-world implementation considerations such as application deployment, service level management and PCI compliance. Case studies will be used to illustrate these platforms in practice.



Biography:

Fred Kauber is an accomplished executive and consultant with over 24 years of experience in executive technology, online marketing, product management/development and operations leadership roles. He currently serves as the CIO of TRANZACT, a performance marketing firm headquartered in Fort Lee, NJ which provides customer acquisition solutions to Fortune 500 insurance companies. He has served in the role of CIO/CTO for more than half of his 25 year career, as well as holding senior leadership positions in product management/development and operations at Fortune 500 and entrepreneurial ventures alike, including IBM, Dun & Bradstreet, Reliance Insurance, Bigfoot Interactive, and First Data. He has been a frequent speaker at industry conferences on the topics of online marketing and application development/architecture, in addition to teaching enterprise technology strategy as an adjunct professor in NYU's Executive Master's Program. Mr. Kauber has been trained as a Six Sigma

Black Belt and possesses an MBA in Finance & International Business from NYU as well as an MS in Telecommunications from Pace University.

Learning from Others: Top 10 Mistakes in Web Design, IA, and Application Design

Josephine Giaimo

Track: Software Development
Armstrong Hall, room AR-148
9:00 AM - 9:55 AM

Abstract:

Why continue to make your own design mistakes, when you can learn from those of others instead? Summarizing the work of other noted UX researchers including Jacob Nielsen, we'll take a look at some of the most egregious errors in Web, application, and IA design. Using best practices and methods for UX, much of the research we'll discuss was performed between 2008 and 2011. Did you know that the top Web design mistake is a bad search engine? Or that the top IA mistake is no navigation structure? Or that the top application design mistake is non-standard GUI controls? Learn how to use existing or your own "discount" UX research methods to identify these and other design errors, before you invest thousands more in a bad design.



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.

Agile and Offshore Maturity Models

Mike McGonagle

Track: Professional Development / Management

Armstrong Hall, room AR-144

9:00 AM - 9:55 AM

Abstract:

Description: Today many agile teams have remote members either because of a distributed workforce, or outsourcing/offshoring. Agile effectiveness is heavily dependent on good intra-team communication and communication can be one of the primary problems with working in a distributed environment. In this presentation I'll discuss how to use Agile and Offshore Maturity Models to create a framework for improvement so you can produce excellent results in this kind of environment. Key points to discuss include:

- * Effectively conveying requirements (stories, acceptance criteria, etc.) to remote team members and mechanisms for insuring that they are understood
- * Tools to create a virtual alternative to the classic team room
- * Challenges with conference calls and video, and strategies to overcome them
- * The importance of travel between locations, and the best times for team members to travel
- * Considerations in forming teams in a multi-team, distributed environment and how to deal with the trade-offs involved
- * Defining the team's meeting schedule and dealing with the impact of the time shift inherent with significant time zone spans. I.e. the beginning of some member's day is the end of others

* Danger signs to watch for and suggestions on how to address them. Many of these are the same as with a co-located team, but the impact of distance, telephone-based interaction, and cultural differences can make them harder to spot and correct.

* And how do you do all of that without corrupting your Agile process?



Biography:

In over 30 years in the software industry I'm struck by one primary fact – “We can do better!” I now work with teams across the industry helping them improve, with primary areas of focus in leadership and agile coaching, and optimizing the performance of distributed teams. I have extensive experience developing and delivering successful software solutions across a variety of application areas and on a variety of architectures – SaaS, on-premise, client-server, PC and mainframe. Most recently I was CTO at ClickSquared, a cross-channel marketing company in Boston. Prior to that I've held a number of executive positions including Vice President of Software Engineering at Kronos, a global leader in workforce management applications; CTO at Deploy Solutions; and was co-founder and CTO at Exchange Applications, a pioneer in the marketing technology space. In almost all of those positions I've been responsible for distributed development environments, included near-shore and off-shore teams, which has given me a hands-on appreciation of the challenges and opportunities of that model. I am a member of the Boston Chapter of the Technology Leadership Council and IEEE. You can follow me on my blog [Conquering the Chaos](http://conqueringthechaoscto.blogspot.com/) (conqueringthechaoscto.blogspot.com/<<http://conqueringthechaoscto.blogspot.com/>>) and on Twitter (@mikemcgon).

10:00 AM – 10:50 AM Presentations

Data Analysis with R for IT Professionals

Charles Mutigwe

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

10:00 AM - 10:55 AM

Abstract :

As the data analytics revolution continues to gain steam, IT professionals will need to join the rest of the organization in becoming statistically literate. Not only will IT professionals have to deploy and support Big Data infrastructure, but they will also be required to use data for departmental decision-making and to support proposals for future initiatives to the executives in the organization. Against this backdrop, the popular R statistical computing platform appears to have become the 'Excel' of data analysis. R provides an accessible tool for data analysis and charting. In this presentation a brief tutorial of the R programming language will be given. The tutorial examples will use data sources, such as the Apache web log and MySQL log files, which IT professionals are familiar with. After this session attendees should have a better appreciation of the need for IT professionals to improve their data analysis skills. They should also leave with a working knowledge of R that they can use for basic data analysis tasks.



Biography:

Charles Mutigwe is a Data Analyst at the University of Massachusetts Amherst, where he is also an adjunct lecturer in the Isenberg School of Management. He received B.S., M.S. and D.Tech degrees in electrical engineering, as well as an MBA. For the past 20 years Dr. Mutigwe has worked in several roles in the IT industry; including those of network engineer, systems administrator, systems engineer, systems developer, and IT manager in both the corporate and academic settings. He has worked for DHL International, Berkshire Bank, Pitney Bowes and a number of start-ups during the dot-com era. Dr. Mutigwe teaches graduate courses on information management and undergraduate courses on project management. His research interests are in virtualization, reconfigurable computing, electronic design automation and RFID systems. He is a member of the IEEE, the IEEE Computer Society and the ACM.

Refactoring: how to improve the structure of existing software

Dennis Mancl

Track: Software Development

Armstrong Hall, room AR-148

10:00 AM - 10:55 AM

Abstract:

Refactoring is a developer-centric process for improving software. It is the process of changing software systems in such a way that it does not alter the external behavior of the code yet improves its internal structure. Refactoring is an investment in your code base -- a set of simple techniques for cleaning up some of the ugly parts of the code that were done because developers were in a hurry. Refactoring is partly a manual process, doing small changes step by step, retesting to ensure that nothing has been broken. But there are also some good tools to mechanize some of the most common refactoring steps. This talk is an overview of the refactoring process, showing some examples of refactoring practices that you can use today. The talk will also present some real-world examples of refactoring.



Biography:

Dennis Mancl is a member of technical staff at Alcatel-Lucent, where he is involved in technologies to support the development of high-quality software: applying software modeling approaches, agile development practices, and legacy software development techniques to the development of large telecom systems.

Your Career – Don't Let it Manage You A few Tips to Manage Career Security

Bala Prasanna

Track: Professional Development / Management

Armstrong Hall, room AR-144

10:00 AM - 10:55 AM

Abstract:

While no one can give job security, one can strive for career security through career growth. An important component of career growth is by learning and practicing soft skills. In this context, note that workplace habits and expectations have changed significantly in the last few years. Surviving and

thriving depends on your ability to grasp the broader picture and hone some essential skills. In this context, the presentation will offer tips to be relevant and successful in today's workplace.



Biography:

Bala Prasanna joined IBM in May 2005 as a program manager. He began his career as an assistant professor at SUNY University – Oswego and then worked at AT&T Bell Labs for over 20 years in several job positions. Bala Prasanna volunteers as an ExCom member in IEEE Region 1 Treasurer, He is a senior member of the IEEE and a recipient of IEEE Millennium and IEEE Region awards for his leadership.

11:00 AM – 11:50 AM Presentations

In the use of Mesh networks with version control to maintain configurations in Linux systems.

Isiah Schwartz

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

11:00 AM - 11:55 AM

Abstract:

Recently I was presented with a problem: how to take network of servers, switches, VMs, and desktops and setup a framework to ensure that all configuration files and scripts would be under version control, unique, replicating, and would function with broken network configurations. I plan to present a paper showing how I accomplished this by using a mesh network system based on self-replication. Whereby this created a more secure and stable overall system by ensuring that resources (any Linux system) that deviated from expected were automatically returned to their proper working state, but also allowed me to change settings as needed. I believe my methodology has potential in large scale networks.



Biography:

Isiah Schwartz is an ASIC designer & Linux sysadmin at Teledyne Lecroy. He graduated from the University at Buffalo in 2009.

Should I Build With Open Source Software?

Joe Levy

Track: Software Development

Armstrong Hall, room AR-148

11:00 AM - 11:55 AM

Abstract:

In this non-technical presentation, Joe Levy demonstrates that Open Source Software can form a solid base for product and service development, and that the use of Open Source Software does not preclude making a profit. He opens by defining "Open Source" as a protocol for managing Intellectual Property. He provides a brief history of Open Source Software, and identifies its use in several mainstream commercial and mission-critical applications. Speaking in general terms, he describes the rights and obligations that follow from the use of Open Source Software, and, as a case study, how one manufacturer benefits from those rights and meets their obligations in a successful commercial product line. He concludes with a survey of several other profit-making business models revolving around the Open Source concept.

This presentation is derived from "An Open Source Introduction: In Your Products, and In Your Office", as delivered to the IEEE Princeton / Central Jersey Consultants Network on January 6, 2014.



Biography:

Joe Levy is a Management Consultant, Project Manager, and Business Analyst. He has extensive experience as liaison between core competency business units and the engineering and IT resources that support their operation.

Introduction of ethics in systems design and architecture development

Sabatini Monatesti & Stephan Beller

Track: Professional Development / Management

Armstrong Hall, room AR-144

11:00 AM - 11:55 AM

Abstract:

Specifically the presentation would focus on the healthcare industry and the implementation of Electronic Health Record and the sharing of Patient Health Information in this age of NSA, ACA HIPPA, HITECH oversight, sharing, spying and interoperability.

Definitions of the four ethical principles:

1. Informed consent, i.e., the patient once given an opportunity to assess and concur with the potential for information loss, use, destruction or manipulation brought about with 360X-compliant technologies could exercise informed consent. Patients' right of self-decision can be effectively exercised only if they possess enough information to comprehend their choices and this choice is enabled through the technology.
2. Confidentiality, i.e., the patient's confidential relationship with their referring physician, i.e., a trust relationship, and subsequent clinicians, will not guarantee the integrity of their PHI because the information they reveal to one healthcare provider in private has limits on how and when it can be disclosed to a third party. Thus, physicians or the implementation could advise patients that their PHI could be viewed by third parties without their consent. Given this truth, a patient centric technology is more useful if patients had the ability to provide instructions regarding the distribution and use of their PHI.
3. Double-effect, i.e., whenever a physician advises their patient that bad affects, including adverse events, could occur due to the corruption, misuse, or loss of their PHI, it enhances the trust relationship and ensures awareness of potential risk when this advice is integral to 360X closed loop referral workflow. I believe that VP Cheney had a pace maker installed, and his physician demanded that the vendor turn off the wireless network feature. Why, because it could have been hacked and the VP could have been killed with a cyber initiated electronic shock, i.e., if the pace maker were programmed incorrectly, e.g., by a hacker or cyber terrorist.

4. Beneficence and non-maleficence, i.e., We perceive that the benefits of implementing DIRECT and 360X methods for closed loop referrals far outweigh the potential for harm, such that, even if the information patients provide are misused, the patient is still protected with checks and balances in the technology that are self-correcting.



Biography:

Sabatini Monatesti, MS is a system architect and a certified PERFORM Project Manager with an MS degree in Information Systems Engineering from Polytechnic University and a BSEE degree from Pennsylvania State University. Mr. Monatesti is the COO of NHDS Inc. and the President of ES Enterprises Inc. He also serves as a senior member of IEEE, and he is a charter member of PAeHI (Pennsylvania eHealth Initiative) and NEPA HRTF (North Eastern Pennsylvania Health Reform Taskforce). Mr. Monatesti was instrumental in developing a HIPAA compliant health information portal that includes EHR (electronic health record) and CPOE (computerized physician order entry) applications. His most recent contribution to healthcare reform was the launch and management of the NEPA RHIO, Inc. (North Eastern Pennsylvania Regional Health Information Organization) a consumer focused, patient centric non-profit RHIO. Mr. Monatesti's publications include: Complementing Sick-Care with Well-Care; A Cure for American Healthcare; Toward a Patient-Centric Medical Information Model: Issues and Challenges for US Adoption; Methodology: Fast Track RHIO; Business Risk & Cyber Warfare; B2B in eCommerce. He was a contributor to a PAeHI BAT (Pennsylvania eHealth Intuitive's Business Analysis and Technology) committee paper on eRX-EHR and HIE sustainability.



Biography:

Stephen E. Beller, PhD is clinical psychologist, practitioner, researcher, software inventor, and CEO/ President of National Health Data Systems, Inc. Dr. Beller's life goal is to work with others to help improve the health and wellbeing of all people. Toward that end, he has spent the past 25 years in creative pursuits, including inventing unique software systems, writing about the healthcare crisis and cures, and developing close personal and professional bonds with fine individuals across the globe. Dr. Beller has been focusing on enhancing electronic health records (EHRs) to maximize their usefulness for all types of clinicians in all healthcare disciplines and settings, as well as providing HIT tools for patients and researchers. His efforts include enabling EHRs to: (a) supply patient centered cognitive support ; (b) promote whole person integrated

care that links sick-care with well-care (prevention) and biomedical care with psychological care; (c) deploy a low-cost cyberarchitecture that connects everyone via asynchronous, pub/sub, store & forward, node-to-node mesh networks; and (d) provide a novel, time/money/resource-conserving way to store, share and render lifetimes of health data using pairs of automated spreadsheet templates (models) that generate, exchange, consume and render encrypted delimited data files. He is currently involved in activities devoted to consumer empowerment, continuous improvement of care quality and efficiency using evolving evidence-based guidelines, international efforts to improve the health and well-being of the elderly and impoverished, establishment of cost-effective software architectures using disruptive technology, and supporting first responders and trauma department staff in disaster situations.

1:30 PM – 2:25 PM Presentations

IT Security: a practical approach

Ivan Dell'Era

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

1:30 PM - 2:25 PM

Abstract:

In today's world of Internet connected services, it is more important than ever to make sure the systems are protected, and that security best practices are followed not just when a server is installed, but assessed on a regular basis. With thousands of patches, fixes, updates and tweaks to configuration settings, how do you make sure somebody didn't forget something somewhere? While Firewalls or Intrusion Prevention Systems are good first line of defense, there is a need for more obstacles to keep the bad guys outside, and keep your data inside.

In this presentation we'll introduce the solution implemented at the IBM Research labs around the globe and how we assess and maintain security using a variety of tools for a multitude of platforms and Operating Systems. Continuous security hardening, centralized compliance monitoring, health check

reporting, security patches installation, firewall rules validation, global infrastructure view in and out of DMZ are some of the topics that we'll cover.



Biography:

Ivan Dell'Era joined IBM 20 years ago where he had several roles in different countries. He moved to the Research division 2 years ago as a Security Architect for the Watson site in NY, while also assisting a dozen other labs around the globe with compliance, security and technology issues and solutions from his home office. In his spare time he enjoys spending time with his daughter, taking pictures and finding new purposes for electronic devices.

Getting Started with MongoDB

Michael Redlich

Track: Software Development

Armstrong Hall, room AR-148

1:30 PM - 2:25 PM

Abstract:

MongoDB (its name derived from “humongous”) is an open-source, document-oriented, NoSQL database that provides high performance, high availability, and automatic scaling. It has become the leader in non-relational databases as Fortune 500 companies have been migrating to MongoDB among others.

This seminar will introduce MongoDB, provide a brief overview, how to get started, and demonstrate basic CRUD operations (with some “mapping” to MySQL) on working MongoDB databases.



Biography:

Michael Redlich is currently a Senior Research Technician at a petrochemical research organization in Clinton, New Jersey with experience in developing custom scientific laboratory and web applications. He also has experience as a Technical Support Engineer at Ai-Logix, Inc. (now [AudioCodes](#)) where he provided technical support and

developed telephony applications for customers.

Mike has been a member of the [Amateur Computer Group of New Jersey](#) (ACGNJ) since 1996 and currently serves on the Board of Directors as President. He has also been facilitating the ACGNJ [Java Users Group](#) since 2001.

Mike's technical expertise includes object-oriented design and analysis, relational database design and development, computer security, C/C++, Java, and other programming/scripting languages. His latest passions include [Meteor](#) and [MongoDB](#).

Mike has co-authored nine (9) articles with [Barry Burd](#) for Java Boutique (now [jGuru](#)) and has presented at venues such as [Emerging Technologies for the Enterprise](#) (ETE), [Trenton Computer Festival](#) (TCF), TCF [IT Professional Conference](#), [Capital District Java Developers Network](#), and [Princeton Java Users Group](#).

Mike is also currently serving on the steering committees of ETE 2014 and TCF 2014.

Mike is a member of [Toastmasters International](#) and is also involved in volunteer efforts such as [United Way of Hunterdon County](#) and his company's local Science Ambassador program. He is also an avid runner as a member of the [Hill Runners of Hunterdon](#) and has completed numerous marathons.

Mike holds a Bachelor of Science in [Computer Science](#) from [Rutgers University](#).

Insider/Outsider Cyber Threat Identification and Forensics; Even if the Insider is an Administrator

Stephen W. Leibholz & Dr. Tom Martin

Track: Professional Development / Management

Armstrong Hall, room AR-144

1:30 PM - 2:25 PM

Abstract:

We have researched and designed a four-fold monitoring technology for identifying insider misbehavior in a large organizational network, including clandestine infiltration and exfiltration of data via (1) Deep Packet Inspection (DPI) to discover clandestine exfiltration or tunneling of sensitive data, (2) Statistical

identification of rogue “social” networks, (3) Predictive Semantic Coding: forensic-quality artificial-intelligence-based search and correlation of very large narrative (cloud) databases, and (4) all packaged together in a modified hardware server and recorder—inaccessible to all but a select few administrators—and *not accessible* via Ethernet or Wi-Fi addressing.



Biography:

An entrepreneur, physicist and engineer-inventor, Mr. Stephen W. Leibholz has a dual career serving as and as founder and hands-on developer and leader of technology companies, and as a research scientist-engineer. Previously he founded, built, managed for 23 years as CEO and CSO, and ultimately sold Analytics Inc., and also ACS Inc., built, ran and sold Chesapeake Airways, and developed and merged out several smaller companies. He also concurrently serves as a Special Employee of an agency of the US Government.

His primary career has focused on building and managing high-tech businesses and augmenting their technical inventories, emphasizing the rapid transition of research into products and systems in remote sensing, communications, information security, and national and homeland security.

Founder, CEO and Chief Scientist of TechLabs, he is managing and contributing to the development of systems and devices for counterterrorism and public health and safety, and secure IT and communications.

His current technical work emphasizes biotechnology, information security, and sensor systems, focused on counterterrorism and special programs. His research interests include secure networks, biosensing, electromagnetic sensing, technical intelligence, math modeling of threat systems and human decision processes, and direct brain/computer coupling.

He has also contributed in the area of information security, having published one of the first books on the subject, possessing one patent in that field, and having managed the pioneering of the first approved firmware-driven Type II cryptosystem for the banking industry, the first certified application of special authentication devices to cryptosystems, and one of the first multilevel-security *hardware* firewalls.

On faculty at the American Management Association, he developed courses and taught executive skills to senior executives, as well as managing the program of the TechLabs Executive Institute. He has also had a number of academic appointments in physics, mathematics and music.

He is a Senior Fellow of the Foreign Policy Research Institute. A former Member of the Board of Visitors of the Marine Biological Laboratory, he also serves in a Board capacity with other institutes and organizations. He is also a former Trustee and Monographs Editor of the Military Operations Research Society and a former member of the Scientific Boards of the Monell Institute and the University of the Arts.

Author of 5 books, numerous papers and articles, and over 10 patents issued and pending, Mr. Leibholz is cited in *Who's Who in America*, *Who's Who in the World*, and *American Men and Women of Science*, inter alia.

Chairman and member of the New York Composers' Circle, a 4000-hour multiengine instrument pilot, Mr. Leibholz also has personal interests in scuba diving, musical composition and sculpture.



Biography :

Dr. Martin received his B.S. in Electrical Engineering from the University of Notre Dame (Magna Cum Laude), and the M.S. and Ph.D. in Electrical Engineering and Computer Science from the University of Pennsylvania. He has over 50 published papers, and has been awarded 19 patents. In 1998 he received the College of Engineering Honor Award from the University of Notre Dame for "Significant Contributions to the Advancement of Engineering". Dr. Martin's contributions to the field of automatic speech recognition were cited by President Ronald Reagan. Today, speech recognition is a mainstream product used by computer users throughout the world.

Dr. Martin is a former CEO and Division President of five high-technology companies. He has extensive international experience, having served as a corporate officer for companies based in Great Britain, Germany, Canada, and Israel.

In 2002 he joined Holy Family University where he was a full Professor, the former Director of the graduate program in Information Systems Management, and the originator of an undergraduate program in Digital Forensics.

In 2008, he co-founded Forensics, Inc (<http://www.4n6labs.com/>), a company specializing in Integrated Forensics. He is recognized as a pioneer in predictive coding which he has used in artificial intelligence, learning machines, pattern recognition and speech processing for over 30 years. Dr. Martin has managed government-sponsored research grants from virtually all branches of the military and

intelligence agencies. He is a Senior Fellow of the Foreign Policy Research Institute, a member of the High Technology Crime Investigation Association and the Association of Certified Fraud Examiners.

2:30 PM – 3:25 PM Presentations

Mobile Computing in the Large Enterprise

Carlos A Fonseca (speaker attending), Lorraine M Heger & Drew Wyskida

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

2:30 PM - 3:25 PM

Abstract :

Flexibility in working styles, venues, and global organizations has led to an extremely rapid change in how employees tackle their work, and their expectations as to how the enterprise will support them. Employees expect to use smart phone and tablets within the enterprise in the same way in which they use these devices in their personal lives – to message, search, talk, participate in social media, sharing data and completing transactions. This complexity for enterprises is further seen in the multiplicity of mobile devices which organizations struggle to support. The sharing of data with colleagues is of most concern to the enterprise, since these devices are hard to secure and often are lost. How can a company allow employees to use these devices without compromising the security of the enterprise, incurring an increased number of security incidents, or causing the leakage of confidential and sensitive information? This question must be focused on and answered, since the future of all businesses depends on using current technology to improve the business results.

This talk will focus on describing how IBM, a company with ~400k employees, of which approximately 35% are now mobile-enabled with the full spectrum of devices, is solutioning the consumerization of enterprise IT challenge. The focus will be on both the processes and governance that IBM has developed, as well as the innovation and technologies developed in support of the IBM 21st century workforce.



Biography:

Carlos Fonseca joined IBM in 1990 and has over 20 years of software development, engineering, and architecture experience. Carlos has provided many contributions to IBM technologies, solutions, and software products. Currently, Carlos manages a high performance team providing data center networking, compute, and storage infrastructure architecture and deployment. Carlos' team also provides multi-platform enterprise software development solutions including mobile application development. Wireless technology, emerging clients, VPN and secured access solution development are core functions of the team. Carlos provides technical leadership in many of the team's contributions including leading several key cloud infrastructure architecture and deployment projects in IBM Research.



Biography:

Lorraine Herger is the Director of Integrated Solutions and CIO of IBM Research. In this role, Lorraine is the service provider for the IBM Research Division. As part of being the Research CIO, Lorraine and her team provide mobility services to the Research team, and work with the IBM CIO office to develop new technologies which can improve mobility services, as well as the associated governance, policies and practices to streamline the introduction of mobility across IBM. Lorraine holds a BSEE from University of Maryland; BA, Columbia University and MBA, Stern School of Business, NYU. Ms. Herger is currently the President, of the SWE-NY Professional Chapter, a Senior Member of the IEEE and an ABET (Accreditation Board for Engineering and Technology) Board member, representing SWE.



Biography:

Drew Wyskida joined IBM in 1988 at the T. J. Watson Research Center. Drew has over 20 years of experience in the fields of information technology and services. He has played a key role in the development and deployment of advanced solutions at IBM Research. For the past ten years Drew has focused his work on wireless mobility and remote networking solutions at IBM. Drew is a certified Master IT Specialist and ITIL Foundation in IT Service Management and sits on the IBM IT Specialist Board of Approvers.

Designing the User Experience (UX): An Introduction to Data-Informed Design

Josephine Giaimo

Track: Software Development
Armstrong Hall, room AR-148
2:30 PM - 3:25 PM

Abstract:

Does your company have a systematic usability process yet? Besides user testing, what other usability methods is your company using to reduce risk and improve quality? Does your company want to build a reputation for good products and a good user experience? If so, how willing are managers to delay or cancel a project due to a bad user interface? What are the current documented usability guidelines, and is your company using them? Are your designers working from guesses, or from data? Case studies and examples of applied UX methods and results will be presented.



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 (Middleton, 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.

Systems Engineering for IT and Software Engineering Professionals

Brian Berenbach

Track: Professional Development / Management

Armstrong Hall, room AR-144

2:30 PM - 3:25 PM

Abstract:

Many systems today tend to be large, complex and assembled by multidisciplinary teams. Furthermore, they also involve the integration of hardware, operate in heavily regulated environments, and may be impacted by socioeconomic issues.

Systems engineering (SE) has evolved as a discipline to help manage the development of such systems. In fact, many CS and IT professionals, after taking additional academic work, transition into SE.

This talk will describe, at a high level, exactly what systems engineering is, and how it is relevant to IT and software engineering. The speaker will also discuss the requirements to become a systems engineer, and how interested professionals can transition into the field.



Biography:

Brian Berenbach is a retired systems engineer with over 45 years of experience. He is an ACM Distinguished Engineer and holds the highest certification level (ESEP) in Systems Engineering. Mr. Berenbach currently teaches graduate systems engineering courses at the Georgia Institute of Technology.

3:30 – 4:25 PM Presentations

Applying Process Mining to IT Big Data

Richard Eng

Track: Technology / Infrastructure

Armstrong Hall, room AR-154

3:30 PM - 4:25 PM

Abstract:

Process mining is a Data Analytics technique that is system agnostic and can be used to evaluate and understand how an actual process works. Applying process mining to Big Data from IT infrastructure logs permits organizations to visualize and analyze the actual IT infrastructure and software applications processes in an organization. Since logs are already maintained, process mining enables the IT practitioner/data analyst to quickly understand and compare normal and anomalous operations rather than manually reviewing system logs. Process mining Analytics can lead to more rapid problem solving and process improvements.



Biography:

Richard F. Eng is a Principal Software Systems Engineer at the MITRE Corporation. He has over 20 years of industry experience in telecommunications and software systems. His areas of interest are quantitative methods to improve business , IT processes, and software quality. Richard is an ASQ Certified Software Quality Engineer, Reliability Engineer, and Quality Engineer. He is a certified Projects in Controlled Environments (PRINCE2) Practitioner and a PMP. Richard graduated from Georgetown University with an MBA. He graduated from Brooklyn Polytechnic Institute with a M.S. In Bioengineering and B.S. In Chemistry. Richard is currently pursuing an M.S. in Data Analytics at the University of Maryland.

Getting Started with Meteor

Michael Redlich

Track: Software Development

Armstrong Hall, room AR-148

3:30 PM - 4:25 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, and 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 during a sufficiently caffeinated hackathon). No longer do you need to provision server resources, deploy API endpoints in the cloud, manage a database, wrangle with an ORM layer, 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 source code from a few Meteor web applications.



Biography:

Michael Redlich is currently a Senior Research Technician at a petrochemical research organization in Clinton, New Jersey with experience in developing custom scientific laboratory and web applications. He also has experience as a Technical Support Engineer at Ai-Logix, Inc. (now [AudioCodes](#)) where he provided technical support and developed telephony applications for customers.

Mike has been a member of the [Amateur Computer Group of New Jersey](#) (ACGNJ) since 1996 and currently serves on the Board of Directors as President. He has also been facilitating the ACGNJ [Java Users Group](#) since 2001.

Mike's technical expertise includes object-oriented design and analysis, relational database design and development, computer security, C/C++, Java, and other programming/scripting languages. His latest passions include [Meteor](#) and [MongoDB](#).

Mike has co-authored nine (9) articles with [Barry Burd](#) for Java Boutique (now [jGuru](#)) and has presented at venues such as [Emerging Technologies for the Enterprise](#) (ETE), [Trenton Computer Festival](#) (TCF), TCF [IT Professional Conference](#), [Capital District Java Developers Network](#), and [Princeton Java Users Group](#).

Mike is also currently serving on the steering committees of ETE 2014 and TCF 2014.

Mike is a member of [Toastmasters International](#) and is also involved in volunteer efforts such as [United Way of Hunterdon County](#) and his company's local Science Ambassador program. He is also an avid runner as a member of the [Hill Runners of Hunterdon](#) and has completed numerous marathons.

Mike holds a Bachelor of Science in [Computer Science](#) from [Rutgers University](#).

Enlightening Technical Leadership

Kartik Subbarao

Track: Professional Development / Management

Armstrong Hall, room AR-144

3:30 PM - 4:25 PM

Abstract:

Who are you? Why do you do what you do? By asking yourself these questions and paying careful attention to the answers that emerge, you can become a better leader. When you bring greater self-awareness to your technology work, your vision is expanded, your creativity is boosted, and you can collaborate more effectively with a wider range of people. This session is about ways to ask and answer the fundamental questions that can increase self-awareness, with insights from psychology and neuroscience. We'll explore the following areas in the context of technology work:

- + Recognizing your talent
- + Refining, switching and letting go of your mental models
- + Understanding your sense of abundance and scarcity

- + Learning from your reactions of dislike and admiration
- + Observing how you set and form expectations when you communicate
- + Identifying the polarities that contain contrasting perspectives
- + Realizing from what you can virtualize



Biography:

Kartik Subbarao is an independent consultant with over 20 years of experience in IT strategy, architecture, and engineering. His career includes over 16 years at Hewlett-Packard in a variety of engineering and technical leadership positions in R&D, Consulting and IT. He was the founding Global Lead for HP's Open Source and Linux Profession, a community of practice for thousands of open source technologists across the company. Kartik has a BSEE from Princeton University and an MSEE from Stanford University. He is the author of *Enlightening Technical Leadership*, a book about bringing greater self-awareness to technology work.

Abstracts & Biographies – Saturday

10:15 AM – 11:10 PM Presentation

You're Not in Kansas Anymore – The Strange Physical Layer World of Industrial Ethernet

Mike Nager

Track: IT-PC

Education Building, room ED-211

10:15 AM - 11:10 AM

Abstract:

When IT ventures into the unknown realms of the manufacturing plant floor, the process facility or the water treatment facility, things start to look strange. Yes, some of the terms like "Ethernet" seem familiar, but the physical layer looks like it came from another world, light-years from the office environment. Learn how the industrial plant implements Ethernet networks, from the connectors to the environmental ratings.



Biography:

Mike Nager graduated with a degree in Electronics Engineering from the University of Scranton and has been involved applications, sales and marketing of industrial controls and components since 1988. He has held leadership positions in ISA and MHIA and presented papers at IEEE, ISA, MHIA, WEFTECH, Smart Grid Electronics Forum, and IPC APEX. He has published articles in Control Design, Control Engineering, Machine Design, Industrial Computing, Plant Engineering and others. He is currently the Vice President for METZ CONNECT'S North American operation.

10:15 AM – 11:10 PM Presentation

Enlightening Technical Leadership

Kartik Subbarao

Track: Computer Business

Armstrong Hall, room AR-144

3:30 PM - 4:25 PM

Abstract:

Who are you? Why do you do what you do? By asking yourself these questions and paying careful attention to the answers that emerge, you can become a better leader. When you bring greater self-awareness to your technology work, your vision is expanded, your creativity is boosted, and you can collaborate more effectively with a wider range of people. This session is about ways to ask and answer the fundamental questions that can increase self-awareness, with insights from psychology and neuroscience. We'll explore the following areas in the context of technology work:

- + Recognizing your talent
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- + Learning from your reactions of dislike and admiration
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- + Identifying the polarities that contain contrasting perspectives
- + Realizing from what you can virtualize



Biography:

Kartik Subbarao is an independent consultant with over 20 years of experience in IT strategy, architecture, and engineering. His career includes over 16 years at Hewlett-Packard in a variety of engineering and technical leadership positions in R&D, Consulting and IT. He was the founding Global Lead for HP's Open Source and Linux Profession, a community of practice for thousands of open source technologists across the company. Kartik has a BSEE from Princeton University and an MSEE from Stanford University. He is the author of *Enlightening Technical Leadership*, a book about bringing greater self-awareness to technology work.

12:25 PM – 1:20 PM Presentation

Professional Development - Continuing Education and Skills Development

Susan Schueller

Track: IT-PC

Education Building, room ED-211

12:25 PM - 1:20 PM

Abstract:

As senior-level information technology professional, I will share my insights on my diverse career experience, along with my current pursuit of an advanced degree in information technology. By invitation, I have given related presentations in recent years to several Boston-area professional organizations. My goal for this conference is to present my discussion to a wider IT professional audience, in order to continue encouraging others to seek further development of their education and skill set.

My presentation will include the following topics:

- Keeping up with technology and skills development through ongoing education (e.g. short-term courses, degree programs, certification and renewals, on-line and classroom training)
- Overcoming challenges during pursuit of further education
- Diversifying skills through contracting opportunities (wearing more than one hat)
- Seeking a mentor, becoming a mentor (educational outreach)
- Participating in career and skill development workshops offered by professional organizations (seeking opportunities available for both members and guests)
- Building confidence and validating knowledge



Biography:

Susan M. (Chaisson) Schueller is a software engineer in the Metropolitan Boston area. She is currently employed at Harvard University, while pursuing her Master’s Degree in Information Technology part-time at her alma mater, UMass Lowell. She received her Bachelor’s Degree in Computer Science at UMass Lowell. Susan’s diverse career in software engineering includes experience at Harvard University, Draper Laboratory, Raytheon, iRobot, Polaroid, Digital, Compaq, Hewlett-Packard, Wang Laboratories and Computervision. She has been commended by her managers and peers for her teamwork, expertise, focus and mentorship. Susan is a member of the Society of Women Engineers (Boston Section), IEEE/Women In Engineering (Boston Affinity Group), and the American Society for Quality (Merrimack Valley Section). She is an ASQ Certified Software Quality Engineer. In SWE, Susan volunteers for educational outreach activities such as K-12 workshops, Girl Scout badge events, panel discussions, career fairs and mentoring. By invitation, Susan has given several presentations about her career and education to several Boston-area professional organizations. Susan is also a volunteer musician in several New England community music ensembles, performing on flute, piccolo, alto flute, bass flute and cello. She is an avid archer, runner and cross-country skier.

1:30 PM – 2:25 PM Presentation

The Do's and Don'ts of Data Visualization: How to avoid being lead astray by your data and How to create a winning strategy

Jennifer Shin

Track: IT-PC

Education Building, room ED-211

1:30 PM - 2:25 PM

Abstract:

Data visualization is growing in popularity, but there is a wide range of opinions on the requirements for creating one. This talk will focus on data visualization from the perspective of a data scientist and present real world examples ranging from environmental grants to theoretical mathematics. The talk will begin by presenting an overview of the present state of data visualization including an overview of the tools and methods for representing data. I will also review a list of pitfalls, what can be done to avoid being lead astray by data, and how to approach developing a strategy that works.



Biography:

Jennifer Shin is the Founder and Principal Consultant at 8 Path Solutions LLC, a management consultancy and data science startup that meets the growing need for scientifically engineered solutions to tackle real world challenges. Her approach focuses on integrating the core elements (people, process, technology, expertise) to create innovative strategic, technical, and data science solutions. Jennifer received her Bachelor Degree in Economics, Mathematics & Creative Writing from Columbia University and Master Degree in Statistics from the Graduate School of Arts & Sciences at Columbia University. Her current projects include blogging for SCORE, working with undergraduate and graduate students as an Executive on Campus at Baruch College, and developing a series of instructional videos with eHow.

3:40 PM – 4:35 PM Presentations

What the Internet of Things Will Mean to CIOs:

Nauman Chughtai

Track: IT-PC

Education Building, room ED-211

3:40 PM - 4:35 PM

Abstract:

Estimates suggest that as many as 50 billion devices will connect to the Internet by 2020. Internet-enabled refrigerators and garage door openers sound intriguing, but are they really worth the trouble? Learn if the hype is real or not and why enterprises are still giving it a cold shoulder.



Biography:

Nauman Chughtai is a versatile senior executive with experience in high-tech, IT and operations roles. He is adept at managing large projects leveraging resources, vendors and technology. An innovative and persistent problem solver, Nauman thrives on challenges and excels at business process improvement, project management and organizational development. His professional experience includes building a wide range of software, from retail client server systems to cutting-edge development tools and ecommerce applications. Nauman offers well-honed, proven abilities as visionary, and driver of strategic business systems development that consistently have delivered outstanding results. He has strong leadership qualifications coupled with enterprise-wide architecture, development and technical project management expertise.

Nauman has a BS in Computer Engineering from University of Central Florida and MBA from Rutgers University.

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 and 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: `guest747`

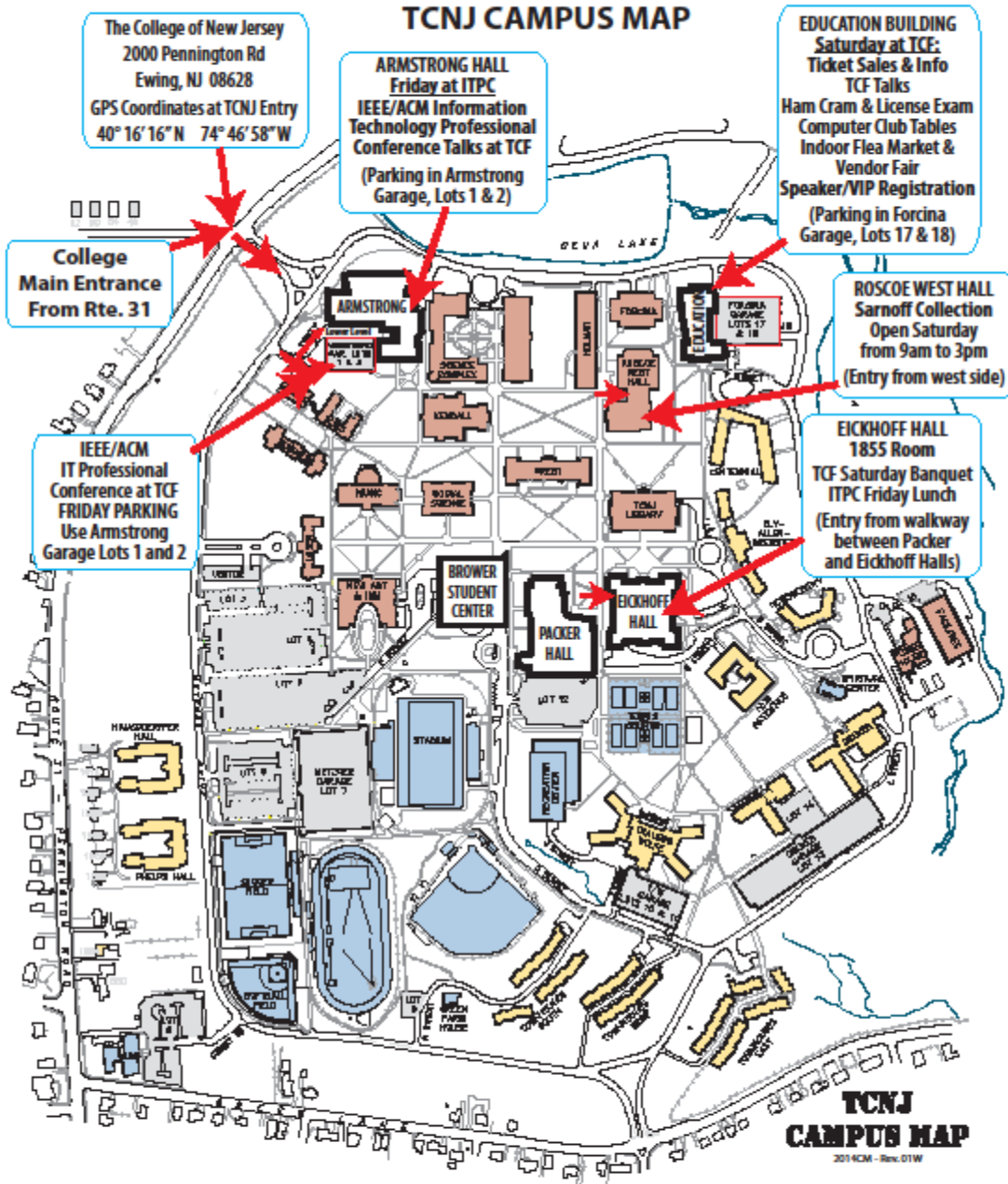
Password: `gu2avana`

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

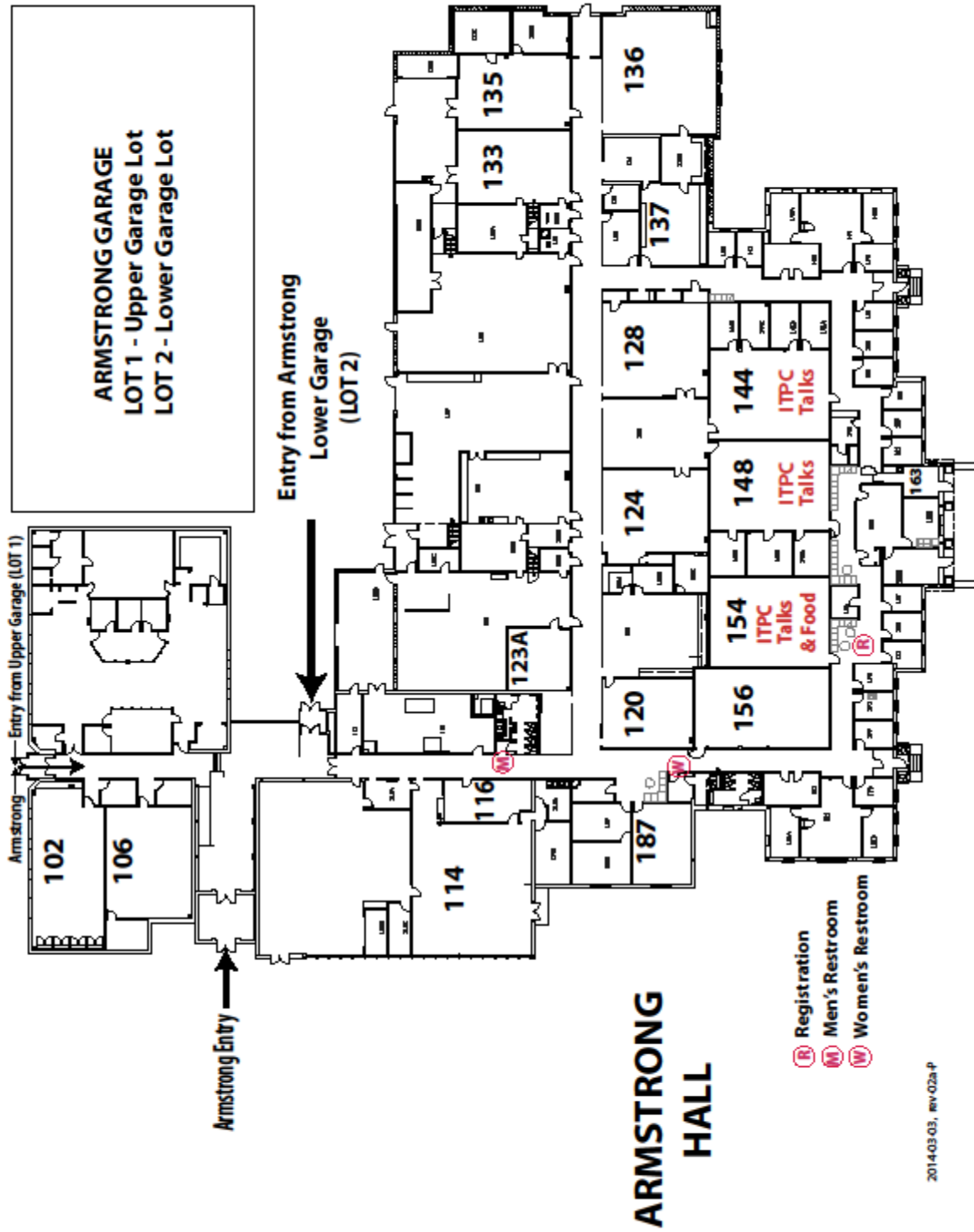
NOTE: No wireless encryption is used on the guest network. You should use encrypted protocols such as HTTPS, SSL or SSH when accessing sensitive information over this wireless network.

TCNJ Campus Map

2014 TRENTON COMPUTER FESTIVAL TCNJ CAMPUS MAP



TCNJ Armstrong Hall Floor Map



	ED-115	ED-211	ED-209	ED-208	ED-207	ED-206	ED-113	ED-109	ED-107	ED-110	ED-204	ED
	Microsoft	IT-PC	Computer Business	Robotics	New Technology	Education & STEM	Mobile Computing	Software/ Apps	Arduino Workshop	OOP University	Amateur Radio	Exhibits
10:15am to 11:10am	Bitcoin - Currency for the Future or the Past? D. Libes	Strange Physical Layer World of the Industrial Ethernet M. Nagler	Supporting Manufacturing Computer Systems C. Ahnve	TONU Robots: Associated Hand M. Colon	Software-Defined Radio Dongles for VHF/UHF Reception M. Filippi	Getting Started: PCs, Pads, Internet & Digital Photography H. Hintz	GPS Secrets Updated C. Lewart	Workshop on Developing Apps for Android B. Burd	Introduction to Arduino (Presentation)	Introduction to OOP Design Principles M. Redlich	Ham Exam 101	Special Exhibits and Demos Quadcopter Demonstration Digital Photo Exhibit 3D Printer/RepRap Demos by IEEE-PCJS from 10:00am to 1:00pm in Room ED-200 Historic Computers from M.A.R.C.H. Clubs Tour the Sarnoff Museum of Historic Technology www.n2re.org (9am-3pm in RWH)
11:20am to 12:15pm	Workshop on Keeping Your Computer Bug Free & Tips on Windows 8.1 R. Kessler	Social Media Opportunities D. Hsu	Stock Market Timing Using Neural Networks D. Fishbein	Tour Guiding Robot H. Billmers	TCF40 A. Katz	Updated Guide to Best Web Sites & Search Engines E. Kaplan	Where did Mobile Computing Come From? E. Koblenz	Hands-On with Arduino (Limited Space; Bring Your Laptop!)	Getting Started with C++ M. Redlich	Ham Radio License Exam Preparation Course Ham Exam Session begins at 9:00am and goes to 12:30pm	Ham Radio License Exam	
12:25pm to 1:20pm	Continuing Education and Skills Development S. Schueller	Internet Job \$\$\$ D. Hsu	TONU Autonomous Ground Vehicle J. Scott	Keeping Track of Your Things J. Jesson	How Augmented Reality can Empower Teachers and Students C. Kapp	Google Glass B. Burd	Visualize the Brain in 3D X. Wei	Arduino on the Network	Getting Started with Java M. Redlich	Practice Exam given at 1:30pm	Walk-in Real Exam given at 3:40pm	
1:30pm to 2:25pm	Microsoft Office in 2014 D. Sell	The Do's and Don'ts of Data Visualization J. Shin	A Low-Profile Antenna for SATCOM on the Move K. Burden	Evolution of Console Computer Games R. Ambrosio	Why Computer Science Education is Good D. Detrick	Cloud Services J. Budells	Python on the Raspberry Pi B. Brutzman	Advanced Java M. Redlich	Conducted by the David Sarnoff Radio Club www.n2re.org	Conducted by the David Sarnoff Radio Club www.n2re.org	Conducted by the David Sarnoff Museum of Historic Technology www.n2re.org	
2:35pm to 3:30pm	Introduction to Windows 8 D. Sell	What the Internet of Things Will Mean to CIO's N. Chughtai	Manage Your Career B. Prasanna	Robotics - An Introduction O. Hernandez	From Spark Gap to Software Defined Radio (SDR) J. Jesson	Building a Public WiFi System D. Ferguson	Computer Anamorphic Art W. Silverman	Controlling the World with Arduino P. Bergman	Controlled by the David Sarnoff Radio Club www.n2re.org	Controlled by the David Sarnoff Radio Club www.n2re.org	Controlled by the David Sarnoff Museum of Historic Technology www.n2re.org	

Featured Keynote Speaker: Joseph Salvo, Manager, Complex Systems Engineering Laboratory, GE Global Research, will talk on "The Internet of Things" in Room ED-115

2014 Trenton Computer Festival — Saturday, 15 March 2014

Keynote Speaker (2:35pm): This year's Keynote Speaker, **Joseph Salvo**, will speak on "The Internet of Things (IoT). IoT lets you locate, control and communicate with objects anywhere in the world. It could be a package, or the thermostat in your house, or a remote camera ... The Internet is not just for "people" but also for "things"! The keynote will introduce us to this technological breakthrough that is changing the World. Dr. Salvo is a leader and innovator in the development of IoT.



Featured Technical Speaker, Barry Burd (12:25pm): See a demo of Google Glass's features and try the device for yourself! Learn how simple Glass Apps are created, using the Mirror API and the GDK (Glass Development Kit).

Object-Oriented Programming University: Offers a one-day introduction to object-oriented programming by Mike Redlich, President of ACGNJ. **Tour the Sarnoff Museum Collection of Historic Video and Electronic Technology:** in Roscoe West Hall at TCNJ. Open from 9am to 3pm.

2:35pm - Featured Keynote Speaker:

Joseph Salvo,
Manager, Complex Systems Engineering Lab
for GE Global Research,
in Room ED-115

TCF'14
Saturday Evening Banquet
Featuring a talk on
"The Industrial Internet Meets
Cloud Manufacturing"
by **Joseph Salvo**
GE Complex Systems Engineering Lab
6:00pm - 1855 Room, Eirkhoff Hall
Admission: \$25
Tickets available on the TCF website
www.tcf-nj.org (by March 10th)
Pick up tickets on Sat. at VIP/Speakers desk.
Door Prizes!

Friday - ITPC 2014
9th IEEE/ACM Information Technology Professional Conference at TCF
8:30am to 5:00pm in Armstrong Hall
Friday, March 14, 2013
(Conference registration required.)
Info/Fees: <http://princeton.acm.org/itpc10>
www.tcf-nj.org