IEEE/ACM Information Technology Professional Conference 2012 at TCF

The College of New Jersey, March 9, 2012

Sponsored by:

IEEE Computer Society, Princeton/Central Jersey Chapter

Princeton Chapter of the Association for Computing Machinery

IEEE, Princeton/Central Jersey Section

IEEE USA

Trenton Computer Festival

Contents

Firday, March 9, 2012

9:00 AM Presentations

Programming without code

Pat G. Palmer

Room SSB-225

The approaching maturity of web services technology and growth of free tools, de facto standards and services on the world wide web has enabled a new type of "software development" to spring up in which a minimum of actual code needs to be written, and the bulk of the complexity is handled by the (often remote) third-party software.   This talk will explore examples of feeding data to web services to create graphs, charts, mashups, musical scores or even sound files.

Bio: Pat started her computing career in the 1980's as a software developer in AT&T Bell Laboratories. After a decade and half there, she worked in the insurance and pharmaceutical sectors, and taught for a few years at Univ. of Penn. (where she's still a part-time lecturer). Her current job is as a programmer and system administrator for a group of algae scientists, which much database and web server development work.

Take Two Beads and Call Me in the Morning – Managing Software Development Projects Better

Howard Deiner

Room SSB-226

Managing software development projects is commonly accompanied by continued bouts of nausea brought on by churn in the process and missed expectations. Many organizations feel that they can battle this problem by stiffening their resolve to have stricter and stricter requirements and process guiding development from inception to production. But that formula does not usually work. This session will demonstrate that better results can from some fundamental changes in management approaches to the problem. Drawing on W. Edward Deming's "14 Obligations of Management", we will reprise Deming's famous "Red Bead Experiment" on its 30th anniversary (with volunteers from the audience), and draw our own conclusions as to how this affects our day to day work leading and managing software development efforts.

Bio: Howard Deiner is an independent software consultant who specializes in Agile process and practices. He has a varied background spanning 36 years in the industry, with extensive domain knowledge in commercial software, aerospace, and financial services. He has played many of the roles in the development arena, such as developer, analyst, team lead, architect, and project manager.

When not mentoring and developing organizations, he has also dabbled in the executive office, and wears the battle scars of the DotCom revolution proudly. He has applied the principles of Agile and XP Development in teams both large and small, for in-house as well as commercial environments, both in an organic setting, as well as the ordained setting. Howard has educated dozens of teams, and made Agile principles come to life in many settings.

Howard has degrees in Computer Science and Electrical Engineering from SUNY at Stonybrook, as well as a Juris Doctor from Thomas M Cooley School of Law. Howard is a long standing member of the ACM and IEEE.

How to Prepare for Financial Success

David Maurer and John A. Mendes

Room SSB-227

This interactive workshop will help you make sense of the choices you face in building your financial future. The topics discussed will help you set financial goals and provide financial strategies you can use right away.

You will learn how to:

- Use new federal tax laws to your advantage
- Decide if you can retire early
- Make informed financial decisions
- Understand the impact of inflation on your purchasing power
- Determine an appropriate retirement goal
- Avoid the most common roadblocks to retirement
- Properly allocate your assets to maximize returns and minimize risks

Financial education can be the best investment of your life. To help you achieve your personal financial goals, you will receive a comprehensive workbook and an optional, private consultation. This workshop is fun and guaranteed to be informative for everyone from young couples to people thinking about retiring sooner rather than later.

You work hard for your money. Now, learn to make your money work harder for you

Bio: John A. Mendes is currently a Senior Partner with Creative Financial Group of NJ. He started with the firm back in 1998, after graduating from Monmouth University with a Bachelor of Science Degree in Business and Finance, along with a minor in Psychology.

John is a recognized financial planner as a Million Dollar Round Table and Leaders Conference qualifier. Through sound financial planning John is able to help his clients achieve their lifetime and legacy goals.

John is also a frequent speaker on Financial Education at local adult schools and colleges throughout Monmouth and Ocean Counties. Through educating the general public on financial matters, John helps

people address their financial obligations and takes great pride in being an Advocate for Financial Responsibility.

10:00 AM Presentations

Flexible Codeless Applications
Gary B. Clayton
Room SSB-225

Microsoft SharePoint has emerged as a jack-of-all-trades solution covering many application areas not addressed by the monolithic packages of the twentieth century. It now seems to have a home in most mid- to large-sized companies and has given new life to IT departments and consultants. Yet many companies are using it for "point solutions" without recognition of just how broadly and strategically it can benefit the company and its mission. This presentation is going to present explore how building in Sharepoint can help companies achieve strong benefits in new application areas and in areas where traditional applications limit or even hurt the companies utilizing them. Gary will present examples from current news and more than 25 years of business and IT consulting.

Bio: Gary Clayton is the Chief Operating Officer (COO) of Omicron Development, LLC. 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. After five years working on navigation and stealth technologies, he transitioned into commercial data processing. As early as MS-DOS 3.1, Gary helped a major insurance client integrate personal computers into mission critical mainframe business applications, thus transforming their business operations and cutting customer service rep training time from eight weeks to one. In the late 1980's, he used the recently released SYBASE client-server relational database to mine new business intelligence from existing mainframe files. Gary has spent most of his professional career in highly collaborative environments, often dependent upon the work product of dozens of contracting firms and a multitude of worldwide stakeholders. 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.

Use Cases
Dennis Mancl
Room SSB-226

Use Cases are a simple way to record customer requirements and to build a model of system behavior. A use case is a simple example of how a software system will be used, and there are a number of different ways that use cases can be used to drive the design and implementation.

This talk will give an overview of use cases, some everyday examples that show their utility in building new systems and in doing reengineering work on existing systems.

Bio: 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.

Manufacturing & Distribution Technology: New Horizons for 2012 & Beyond
Joseph Flesch
Room SSB-227

In this latest edition of the "New Horizons" series, join Contemporary Concepts of New Jersey (CSC of NJ) to learn more about the ever-changing business landscape of manufacturing, how technology opportunities can help influence and even expedite these changes, and what might lie in store as companies learn to be competitive through technology investments. During this program you will come to understand:

- Current & Relevant Industry Observations
- Trends in the Manufacturing and Distribution Industry
- The Shaping of New Business Models Using Technology
- "Big Company" Solutions That Are Coming To Small & Medium Sized Organizations
- What to Expect From the Technology Curve

Joseph Flesch, is Principal & Managing Partner at Contemporary Software Concepts of New Jersey, Inc. (CSC of NJ), continues his extensive and documented track record of successfully delivering best-in-class, business-aligned technology solutions to organizations of all sizes that are seeking tangible strategic advantages from their investments.

In this role, Mr. Flesch has overall P&L responsibility, as well as business development, marketing, strategic partnership and account/project sponsorship responsibilities for the firm. Additionally, Mr. Flesch provides senior leadership, mentoring and business development support to CSC of NJ's sister company, located in Fort Washington PA. Previously, Mr. Flesch was with Logical Design Solutions, a leading management consultancy. There he served as Senior Consultant in various roles with responsibility for Program, Account and Project/Client Portfolio Management for numerous prestigious

F500 clients like The Vanguard Group, JPMorgan Chase, Honeywell, OfficeMax, Prudential, Pfizer and NPA/ExpressScripts (now Medco). Totaling over 25 years in the management consulting & technology industry, Mr. Flesch also brings extensive enterprise application (ERP), small business consulting, web self-service and data and application integration experience to the firms' portfolio of clients and partners.

11:00 AM Presentations

Building Within Frameworks

Robert Gezelter

Room SSB-225

It is rare to work with an architecturally "clean piece of paper". Far more commonly, the architect must work within one or more paradigms defined by pre-existing components, be they toolkits (e.g., jQuery), network stacks (e.g., TCP/IP), or operating systems (e.g., Microsoft Windows, Linux).

This session will explore how to maximize the strong points of underlying technologies and toolkits to avoid poor choices. Learning to appreciate and work with the spirit of the underlying toolkits reduces code and decreases risk.

Bio: Robert Gezelter has over 30 years of experience in computing and is a Contributing Editor of the Computer Security Handbook.

Mr. Gezelter speaks and publishes extensively on operating systems, networks, performance, security, tools, and similar areas. He served with the IEEE Computer Society's Distinguished Visitors Program (2004-6). Mr. Gezelter holds BA and MS degrees in Computer Science from NYU.

His clients range from the Fortune 10 to small businesses. He can be reached via http://www.rlgsc.com.

Intellectual Property - Protecting the fruits of your labor

Joel Miller

Room SSB-226

An overview of patent, copyright, trade secret, and trademark law practice relevant to the IT and engineering communities. A newly-enacted patent law has several provisions that affect both engineers and their employers. Some of the highlights are:

1. Change in inventorship priority from first-to-invent to first-to-file (i.e., who is entitled to a patent).

2. Options for expedited examination of patent applications.

3. Prior commercial use as a defense to a charge of patent infringement.

4. New procedures for challenging patents.

Bio: Joel Miller has practiced law for over thirty years, specializing in patent, trademark, copyright, unfair competition, and antitrust law. Mr. Miller previously served as a patent examiner in the U.S. Patent and Trademark Office (examining patent applications in the fields of telemetry, digital display systems, and computers), and as patent counsel for the Kearfott Division of the former Singer Company (patent matters, licensing, trade secret, and export issues). Please see www.joelmillerlaw.com/biog.shtml for further information.

The Black Swan and Information Security

Rebecca Mercuri, Ph.D.

Room SSB-227

The economic theories proposed by Nassim Nicholas Taleb in his book "The Black Swan" have strong parallels in information security. Indeed, the concepts of robustness and risk assessment mentioned in Taleb's writing are also well known to those who design software and systems intended to withstand attack. Such assaults on computers, networks and data are now so commonplace that if these threats all suddenly vanished, this would likely constitute a Black Swan Event. But whether a successful and novel attack should also be considered a Black Swan may be debatable. This talk will compare the shortcomings of bell curve (Mediocristan) and power law (Extremistan) event models. The idea that outlier occurrences should be considered more "normal" will shed insight on new methods for recovery mitigation. Attendees need no formal knowledge of statistics in order to appreciate the concepts discussed in this talk, as all material will be described in layperson's terms.

Bio: Rebecca Mercuri is the lead forensic expert at Notable Software, Inc. <www.notablesoftware.com>, the company she founded in 1981. Her caseload has included matters involving contraband, child endangerment, murder, computer viruses and malware, wrongful work termination, class-action suits, copyright and patent infringement, and election recounts (most notably Bush vs. Gore). Dr. Mercuri has provided formal testimony and comment to the House Science Committee, the U.S. Commission on Civil Rights, the Election Assistance Commission, the National Institute of Standards and Technologies, the U.K. Cabinet, and numerous state legislatures and municipal bodies. She is a senior life member of the Association for Computing Machinery, where she authored the Security Watch feature and numerous guest columns of Inside Risks for Communications magazine. Rebecca is currently serving a two-year term as chair of the IEEE Princeton / Central Jersey Section.

1:30 PM Presentations

Getting the Most from Pairwise Testing

George Sherwood

Room SSB-225

Pairwise (or all-pairs) testing is a powerful technique for generating test configurations and test data. These designs produce small sets of test cases that cover all pairs of test interactions. Compared with random selection of test parameters, pairwise designs

provide comparable coverage with far fewer test cases. Thus, pairwise designs can lead to more effective testing, for improved quality and cost savings.

The purpose of this talk is to provide practicing software engineers with an overview of the technique. Examples illustrate designs for configurations, input values, database tables and state model transitions. These show how similar problems can be analyzed and what considerations go into an effective test design. The talk supports 3 main points as follows.

Versatility – Pairwise testing is versatile as well as powerful. The diverse examples demonstrate general pairwise design principles which can be applied to a broad range of test situations.

Handling real-world constraints – The examples show the need to conform to real-world constraints of the system under test: Certain combinations of test factors may be unsupported or may not lead to an expected test result. The constraints may be complex, depending on 3 or more test factors, but they can be handled easily in pairwise designs.

Attention to system behavior – An important theme is that pairwise designs can, and need to, reflect system behavior. Selection of input data must exercise the states of the system as defined by its specification or model. The talk aims to demonstrate, with the examples, that test plans to verify required system behavior are practical outcomes of pairwise test design.

Bio: George Sherwood is the founder and CEO of Testcover.com, which operates a cloud-based, software as a service (SaaS) pairwise test case generator. He is the inventor of CATS, the first pairwise test tool to use a greedy search to handle test system constraints. George worked for 25 years at Bell Labs and AT&T Labs on a variety of hardware, software and service development projects. He has managed teams of engineers on work ranging from system engineering and project management to system testing and field support. George is a member of the ACM and APS. He has degrees from Clemson (B.S.) and Yale (M.Phil. & Ph.D.) in Physics.

Demystifying Cloud Computing – A Guide for Mid-Career IT Developers
Eeraj J. Qaisar
Room SSB-226
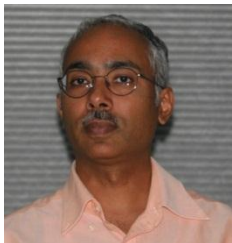
This presentation will sort through the jargon and explain what exactly is cloud computing, what it offers and why should software developers care about it and how it is relevant for next generation of software applications. It will cover the major players involved in cloud computing today as well as tools and resources available to help developers with a traditional software development background come up to speed understanding cloud based software development. There will also be a discussion on pre-requisite technologies that developers should ramp up on before embarking on a cloud based project.

Bio: Eeraj J. Qaisar has over 14 years of experience in software development in a hands-on capacity as well as managing complete projects including teams of software developers, business analysts and

quality assurance personnel. He currently works for a large financial organization, managing a technology team for Equity Capital Markets. He has a degree in Chemical Engineering and is a PMI certified Project Management Professional (PMP). In the past, he also served as a technical editor and co-authored a book on Microsoft Architecture Exam in addition to holding a day time job as a software developer.

Learning a New Programming Language? Why not C# .NET Programming?

Don Hsu

Room SSB-227

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 1857 jobs for Java, and 980 jobs for C# (up from 520 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!

Bio: Donald Hsu is a professor at Dominican College and President of the Chinese American Scholars Association (CASA). He has taught 70 subjects from Accounting to Unix. He worked/taught at 35 firms with 10,000+ clients. Clients are working thousands of companies, including AT&T, Bank America, Goldman Sachs, IBM, JPMorganChase, Mercedes Benz, Microsoft, Morgan Stanley, Sony, Toyota, Verizon, etc. Since 2006, CASA organized and ran 11 successful E-Leader conferences in Asia and Europe.

2:30 PM Presentations

Getting Started with Clojure

Michael Redlich

Room SSB-225

Clojure is a dynamic programming language that targets the Java Virtual Machine (JVM) and Common Language Runtime (CLR). It is designed to be a general-purpose language, combining the approachability and interactive development of a scripting language with an efficient and robust infrastructure for multithreaded programming. Clojure is a compiled language – it compiles directly to JVM bytecode, yet remains completely dynamic. Every feature supported by Clojure is supported at runtime. Clojure provides easy access to the Java frameworks, with optional type hints and type inference, to ensure that calls to Java can avoid reflection. Clojure is a dialect of Lisp, and shares with Lisp the code-as-data philosophy and a powerful macro system. Clojure is predominantly a functional programming language, and features a rich set of

immutable, persistent data structures. When mutable state is needed, Clojure offers a software transactional memory system and reactive Agent system that ensure clean, correct, multithreaded designs.

This seminar will provide a brief overview of Clojure, demonstrate how to get started, and review source code examples.

Bio: 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 has previously serveds on the ACGNJ Board of Directors as Secretary, President, and Past-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.

Web Site Accessibility

Mike Barlow
Room SSB-226

Approximately 19% of Americans have at least one or more disability, including visual, hearing, physical mental and others which prevent them from achieving the full benefit of the Internet and many Web sites in particular.

Even before signing into law the Section 508 Amendment of the Rehabilitation Act of 1973, which requires that Federal organizations abide by specific accessibility guidelines for electronic and information technology, there has been a determined effort for many other organizations to implement their Web Sites in a fashion which is more accessible to individuals with disabilities.

This presentation will attempt to enlighten our audience on how various organizations are going about achieving more accessible web sites.

Bio: Mike has been involved in the computer industry since practically the start of personal computing.

Mike has been working with the Lotus Notes/Domino platform since the Beta of Version 2 in 1991 and has lectured at several Lotusphere Conferences in Florida (including the first Lotusphere back in Dec of 1993).

In recent years Mike has concentrated on more web-based applications (particularly Web 2.0), including the use of AJAX and JSON as well as Application Integration combining the power of Lotus Domino with Websphere, DB2, MS-SQL Server, mySQL, PHP and .Net

Most recently Mike has started working as a Government Contractor, involved in certification and accreditation and Web Application Accessibility.

An Introduction to X3D
Charles Lamb
Room SSB-227

The attendee will learn about X3D, an ISO standard for interactive 3D web content. The basics of coding X3D will be taught including writing simple scene files. Available tools for generating and presenting X3D content will be discussed. Mention will also be made of other technologies for presentation of 3D web content.

Bio: The speaker has a wide variety of experience developing computer graphics systems for both government and industry. He has worked on projects for film and video production and distribution, simulation, and documentation. His latest application of X3D was for interactive military equipment documentation.

3:30 PM Presentations

Instrumented Agile Templates
Satish Thatte, Ph. D.
Room SSB-225

Many software-intensive organizations experience perennial problems such as: failure to meet users' real requirements, delays in time-to-market, cost overruns, poor quality, low productivity, employee stress and burn-out. Agile methods, such as Scrum, provide solutions to these problems. A brief overview of the Agile/Scrum framework supported by effective practices that cover all three roles (Scrum team member, ScrumMaster, Product Owner) will be presented.   This will be followed by the use of instrumented templates that support several agile practices in a scalable way.   These templates embed agile process elements with examples, ensure consistency across agile projects through standardized (yet customizable) use of agile practices, improve overall productivity, and help improve agile practices with measurements. These templates are implemented with familiar Microsoft Office or Google Docs tools, which can be customized to suit your project and organization needs and integrated with your choice of agile tool. As concrete examples, several battle-hardened agile templates

with Rally agile project management tool will be demonstrated: User story template, Engineering capacity calculation template, Daily availability, capacity and workload calculation template, Sprint backlog ordering template, Daily Scrum template, Sprint Retrospective template.

Bio: Satish Thatte received his M.S. and Ph.D. degrees in Electrical Engineering from the University of Illinois at Urbana-Champaign.   He has over 30 years of industry experience that covers large, multinational companies (Texas Instruments, Bellcore and LG Electronics), as well entrepreneurial start-ups.   He has extensive experience of customizing and adapting agile software development methods and practices in a number of companies to deliver client-specific IT services as well as commercial software products. He is a Certified ScrumMaster (CSM) and a Certified Scrum Product Owner (CSPO). Dr. Thatte is a Senior Member of the IEEE and a Member of the ACM. He holds 14 patents (13 US and one International).   Dr. Thatte is the founder and CEO of New Synergy Group which offers customized training, workshops and consulting services for software product and project management, and software business strategy development -- drawing upon the strengths of agile and lean methods, and organizational systems thinking.   He also teaches "agile-lean methods and practices" public course through Agile University.

Legal Issues in Information Technology
Fred Wilf
Room SSB-226

Each year, Congress and state legislators pass new laws, and the courts issue new case decisions, that directly affect computer science professionals and users. We will discuss the re-written Patent Act, proposed changes to copyright law and privacy law, and new issues in social media, mobile computing and cloud computing. We will then open the floor, so please bring your questions!

Bio: Fred Wilf is a partner in Baer Crossey, a technology, intellectual property and business law firm that works with information technology and other companies, ranging from startups to Fortune 100 (www.baercrossey.com). Fred has been speaking and writing on issues in technology and the law (including at the Trenton Computer Festival) since the 1980s. When he's not boring his teenage kids with tales of 1970s technology, Fred is learning 2012 technology from them and trying to figure out how the law will apply to the issues they face now and will face in the future.

Saturday, March 10, 2012

10:15 AM Presentations

A Gentle Introduction to the Cloud
Peter DePasquale
Room AR-156

Cloud computing is among the newest buzzwords in technology today, and holds great promise for how products and services are offered to the world via the Internet. This workshop will provide a gentle introduction to the terminology associated with cloud computing, as well as provide a hands-on with several of Amazon.com's offerings in the cloud space. We'll also discuss other cloud computing vendors and their offerings.

Learn how you can start to leverage the cloud for your personal computing as well as corporate/professional computing needs. Attendees will need access to a laptop and the Internet. Additionally, while many Amazon cloud offerings are free for a very reasonable limit for the first year, you will need to use a credit card to sign up for their services. This is a hands-on workshop.

Bio: Dr. Peter DePasquale is an Associate Professor of Computer Science at The College of New Jersey. He holds a Ph.D. and Masters in Computer Science from Virginia Tech and a Masters and Bachelors in Computer Science from Villanova University. His areas of research interest include computer science education and web application development. His work often explores the practical application of computer science principals in the creation of tools to assist in the introductory programming sequence. He is the author of two programming language reference guides and co-author of two introductory programming textbooks.

Automated Functional Testing
Rajaram Ganeshan

Room AR-124

Software teams mostly find themselves working with three broad categories of tests - unit, integration and functional (excluding technology verification test categories like performance, load, stress etc.). Unit tests indicate whether the code is doing things right. Functional tests are complementary to - but quite different from unit tests. Functional tests tell whether the completed application is working correctly and providing the proper functionality. Simply put, unit tests are written from the code developer's perspective, while functional tests are written from the end user's perspective. When they work reliably, functional tests give users, stakeholders and developers confidence that the software meets agreed upon requirements. This talk examines recipes on how to create and maintain a smoothly running suite of functional/acceptance tests that can be reliably used to verify that the software is ready.

Bio: This talk will be given jointly with another colleague Premanand Chandrasekaran. We work for Thoughtworks, Inc. (http://www.thoughtworks.com/) where we build custom applications for clients using Agile methodologies.

12:25 PM Presentation

Product Development Methodologies for Success
Jerry Bellott

Room AR-124

Engineers can increase their ability to innovate, plan, and develop new products that succeed in the marketplace by increasing their knowledge of the corporate and market environments that they work in. Product development methodologies enable engineers to successfully achieve their goals through appropriate planning of all phases of a project.

Product Development Methodologies for Success! will empower you to:

- Position yourself to be innovative by planning continuing education on current technologies, standards, and practices to fuel creative thinking.
- Position your company for success by using your creative potential to plan new products that address customer needs well.
- Improve product quality by addressing customer needs and expectations.
- Succeed at producing quality products on time by following a structured methodology to break the execution phase down into steps.
- Increase peer interaction to have fun and learn from others through formal and informal peer discussion and review.

In addition to learning structured methodology concepts, creative engineering professionals will gain perspectives on how businesses decide what design projects to develop and assign to engineering staff.

Bio: Jerry Bellott is an electrical engineer with more than 26 years of experience designing products for the computer, wireless, and telecommunication industries at AT&T and Lucent Technologies' Bell Labs and other companies. At Bell Labs, Mr. Bellott designed and developed X.25 network interfaces, PBX components, PC products, and 2G cellular IC evaluation circuits using DSP's, telephony circuits, and conversion signal processors. He also contributed to 3G SOC product architectures. He won awards for outstanding product development contributions while at Bell Labs.

A few years ago, Mr. Bellott was senior systems engineer at successful startup ViaGate Technologies where he co-developed an ATM switch with SONET fiber and VDSL interfaces that provided internet and remote Ethernet LAN access to up to 240 clients. It was the first Fiber-to-the-Basement VDSL solution. More recently, Mr. Bellott co-designed a DSP circuit board using a MathStar IC which served as MathStar's primary customer IC demo and evaluation platform for a period of time. MathStar DSP's contain 64 multiply/accumulate circuits that run at 1 gigahertz each. They also contain reconfigurable register stores and program execution memory elements allowing the architecture to be optimized for low latency, high performance algorithm execution. Mr. Bellott has since designed system test plans, EMI/EMC test plans, and written project documentation for data acquisition, DSP analysis, and radio transmitters and receiver products. His user documentation at IMT Inc. helped the company win a major contract to produce a new compact radio and LAN interface product line. He currently delivers seminars among his other duties at GT Digital, which he founded in 2009.

Mr. Bellott has an MSEE from Georgia Tech (1980) and a BSEE from WVU (1979). At Georgia Tech, Mr. Bellott was a research assistant on a re-configurable DSP computing array project. He served as Vice Chair of the Princeton Chapter of the IEEE Signal Processing Society from 2008 to 2011.

Patents, Trademarks, Copyrights, oh my!

Anthony Carlis

Room AR-114

This talk will be a basic overview of the differences between Patents, Trademarks, Copyrights and other forms of intellectual property. The current trends in intellectual property will be covered as well as any recent Supreme Court cases which my have an influence on current practices.

Bio: Anthony Carlis is a registered patent attorney at the United States Patent & Trademark Office. He has a degree in computer science and a masters degree in electrical engineering. He worked at Baker & Hostetler in Washington D.C. until March of 2011 when he started up his own practice.

3:40 PM Presentations

Power System Analysis and Computation

Anthony Deese

Room AR-154

This talk will discuss the the importance of computation and computational issues in the study and analysis of electric power systems. Issues to be discussed include parallel computation and analog methods.

Bio: Anthony S. Deese received his Bachelor of Science in Computer Engineering as well as Doctorate of Philosophy in Electrical Engineering from Drexel University in 2003 and 2008 respectively. And, while Anthony's graduate education focused on the study of electric power systems (as well as power electronics), his early research encompassed many related areas such as analog emulation of dynamic systems, field-programmable analog array technology, measurement-based load modeling, and state estimation in distribution systems. He has published multiple journal as well as conference works in these areas. Following graduation, Dr. Deese spent two years as a Post-Doctoral Researcher at his alma mater (Drexel) – focused on expanding his publication record. During this time, he also maintained an active teaching schedule as adjunct at Temple and Widener Universities. In the fall of 2010, Dr. Deese joined The College of New Jersey as Assistant Professor in the Department of Electrical and Computer Engineering. Currently, he teaches an array of courses including differential equations, power system analysis, electronics, and power electronics as well as remains active in the research community.