

The



IEEE Newsletter

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

NJ Consultants' Network:

Consulting Q&A and Network Activities Planning Session

On January 27, 2011, the IEEE Consultants' Network of Northern NJ will meet for an informal networking session.

About the Meeting

Consulting Questions and Answers: join us Thursday, January 27th, from 7 to 8:30 PM at the Morris County Library for an informal question and answer session. Bring your own questions concerning consulting and running your own business and present them to our seasoned members,.

Network Planning: prior to the Q&A session, from 6 to 7 PM, we will conduct a planning meeting for the group. Although it is open to everyone, CNNNJ members are especially encouraged to attend. We will continue with our discussions from December meeting, planning activities for the coming year as well as marketing and publicity strategies.

Following the Q&A session, members and guests are invited to continue the networking over dinner at a local restaurant.

About the Consultants' Network

Founded in 1992, the IEEE Consultants Network of Northern NJ encourages and promotes the use of independent technical consultants by business and industry.

All Welcome!

Free admission. Members and non-members are welcome.

Time: 6:00 – 8:30 PM, Thursday, January 27, 2011.

Place: Morris County Library, 30 East Hanover Avenue, Whippany, NJ. Directions are available at www.mclib.info.

Information: Winter weather may force schedule changes. For up-to-date meeting status, call Robert Walker, (973) 728-0344, or visit our website, www.TechnologyOnTap.org.

North Jersey Section Seeks Committee Chairs and Volunteers

The North Section is seeking new volunteers to help conduct business for the benefit of its membership. There are a variety of volunteer positions open and available. They range from technical to non-technical, leadership or just participatory. For Society Chapter Chairs, you MUST be a member of the corresponding IEEE Society.

If you would like to become involved with volunteering in some of these efforts or positions or just become more informed about what is happening at the North Jersey Section, please contact Dr. Chandra Gupta at c.gupta@ieee.org. You are welcome to attend the Section business meeting held the first Wednesday of every month to find out more and other volunteer activities that require some help.

Some committees needing volunteers include the following. Please contact the person indicated for additional information.

- Aerospace and Electronic Systems Society Chair - contact naresh.chand@ieee.org

- GOLD (Graduates of the Last Decade) Affinity Group Volunteers and Committee members needed - contact northjerseygold@ieee.org
- WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed - contact jignasa.ray@ieee.org
- EMBS (Engineering in Medicine and Biology Society) is seeking a chair and active committee volunteers - contact RaquelPC@njit.edu
- Membership Development Committee Chair and Volunteers - contact c.gupta@ieee.org
- Computer Society Chapter Committee Volunteers - contact zhao@fd.edu
- Technical Management Council Committee Volunteers - contact saumil@ieee.org
- North Jersey Section Awards Committee Volunteers - contact k.oexle@verizon.net

Additionally, if interested volunteers would like to get more general information about the Section, including a complete listing of all chapters and committees, visit the North Jersey Section website <http://web.njit.edu/~ieeenj/>, or contact Dr. Chandra Gupta c.gupta@ieee.org.

JANUARY 2011

January 2011

Volume 57, Number 6

Publication No: USPS 580-500

"The IEEE Newsletter" (North Jersey Section), is published monthly except June and July by The Institute of Electrical and Electronics Engineers, Inc. Headquarters: 3 Park Avenue, 17th Floor, New York, NY 10016-5997. \$1.00 per member per year (included in annual dues) for each member of the North Jersey Section. Periodicals-class postage paid at New York, NY and at additional mailing offices. Postmaster send address changes to: "The IEEE Newsletter", 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. USPS 580-500 (ISSN 1076-3732).

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Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at [k.saracinello "AT" ieee.org](mailto:k.saracinello@ieee.org) or to *The IEEE Newsletter*, c/o Keith Saracinello, 25 Messenger Ln, Ringoes, NJ 08551, (302) 683-7162.

IEEE NJ SECTION HOME PAGE

<http://web.njit.edu/~ieeenj/>

IEEE NJ SECTION NEWSLETTER HOME PAGE

<http://web.njit.edu/~ieeenj/NEWSLETTER.html>

REPORT ADDRESS CHANGES TO:

IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, (732) 981-0060. It is not necessary to inform the North Jersey Section when you change your mailing address. "The IEEE Newsletter" and other section mailings use a list provided by IEEE's national headquarters.

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The North Jersey Section Executive Committee usually meets the first Wednesday (except holidays and December) of each month at 7:00 PM. Meetings are open to all members. For information on meeting agenda contact Secretary Dr. MengChu Zhou at [zhou "AT" njit.edu](mailto:zhou).

NJ Section PACE:

Engineers Meet:

A Change of Pace for Engineers. Engineers' Sports Flying Electric Model Aircraft

On Wednesday, January 12, 2011, the North Jersey Section Professional Activities Committee (PACE) of IEEE will change direction and discuss electric powered model aircraft, electronic speed controls, radio control systems, electric motors and components.

About the Meeting:

This meeting will be a change from the professional side of engineering to the lighter side and discuss sports for engineers. This is about the sport of the flying, technical and building aspects of electric powered radio control model aircraft.

The presentation will include a discussion about electronic speed controls (ESP), their operation, types of electric motors and a model aircraft.

Models and equipment will be shown and discussed

All are invited for an interesting and informative presentation.

About the Speakers:

Our speakers will be Richard Landis and Bob Wetstein. Both have been involved in building and flying these models for more than thirty years.

Richard Landis began building and flying at the age of seven and progressed through the sport flying both liquid fuel powered models and now electric, battery powered systems.

Richard will exhibit a variety of models of various sizes, their motors, controls, battery power packs and associated hardware.

Richard's into a much larger variety with over a six foot wingspan.

Bob Wetstein is a well known electrical/electronics design engineer in the area. Bob will provide an in depth discussion of the ESP and motor control circuitry. This will include systems employing different types of motors.

He will also bring a few of his electric powered aircraft. He likes the smaller variety of under thirty-inch wingspan.

All Welcome!

Members and students from all professional societies and engineering disciplines are welcome. We now have attendees from IEEE, ASME, NSPE, ASCE and AEA. For information about these groups see:

www.aea.org
www.ieeeusa.org/policy/care
www.ieeeusa.org

www.programmersguild.org
<http://web.njit.edu/~ieeenj/>
www.asme.org/sections/northjersey

Time: 6:30 PM to 9:00 PM, Wednesday, January 12, 2011. Refreshments will be served.

Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500.

Information: Paul Ward, (973) 790-1625, [peward "AT" ieee.org](mailto:peward), Richard F. Tax, (201) 664-6954, [rtax "AT" aea.org](mailto:rtax).

Registration Open for Two "Soft Skill" Courses in 2011

At IEEE, we recognize that that much of your engineering work involves writing or presenting information to people (end users, marketing executives) who don't have your technical expertise. Thanks to recent requests from many IEEE members, we are launching two "soft skills" courses this year on improving your written communications and presentation skills. Please review the descriptions in this newsletter for content, schedules and dates.

The first course "Improving Your Writing Skills – Tips & Techniques" will be offered over four weeks on Wednesdays - January 5, 12, 19 and 26. http://meetings.vtools.ieee.org/meeting_vieew/list_meeting/4271

The second course "Developing Your Presentation Skills – Tips & Techniques" will be offered over four weeks on Wednesdays -- February 2, 9, 16, and 23. http://meetings.vtools.ieee.org/meeting_vieew/list_meeting/4273

Classes will run from 6:30 PM to 9:00 PM. See registrations forms for details or register online at the above links.

These courses will be held at DeVry University, 630 U.S. Highway One, North Brunswick NJ 07902-3362. For any questions, contact North Jersey GOLD chair Larry Yang at [yangl "AT" ieee.org](mailto:yangl).

Additionally, many folks have requested CEU/PDU credits for these courses. Both courses qualify for either 1.0 CEUs or 10 PDUs and are available at an additional cost of just \$25 more per course. Both courses emphasize individualized instruction with a small class size (22 attendees maximum).

IEEE North Jersey Section Activities

January 2011

Jan. 5 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, Clifton Public Library - Allwood Branch, 44 Lyall Road, Clifton, NJ 07012. Dr. MengChu Zhou at zhou “AT” njit.edu.

Jan. 5 – Jan. 26 – “Improving Your Writing Skills – Tips & Techniques” by Wilma Hurwitz, 6:30 to 9:00 PM, DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ. Larry Yang, yangl “AT” ieee.org.

Jan. 12 – “A Change of Pace for Engineers. Engineers’ Sports Flying Electric Model Aircraft” by Richard Landis and Bob Wetstein, NJ PACE, 6:30 PM to 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward, (973) 790-1625, peward “AT” ieee.org, Richard F. Tax, (201) 664-6954, rtax “AT” aea.org.

Jan. 27 – “Consulting Q&A and Network Activities Planning Session”, NJ Consultants' Network, 6:00 – 8:30 PM, Morris County Library, 30 East Hanover Avenue, Whippany, NJ. Robert Walker, (973) 728-0344, or visit www.TechnologyOnTap.org.

Upcoming Meetings

Feb. 2 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, Clifton Public Library - Allwood Branch, 44 Lyall Road, Clifton, NJ 07012. Dr. MengChu Zhou at zhou “AT” njit.edu.

Feb. 2 – Feb. 23 – “Developing Your Presentation Skills – Tips & Techniques” by Wilma Hurwitz, 6:30 to 9:00 PM, DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ. Larry Yang, yangl “AT” ieee.org.

Feb. 24 – “Getting Started in Consulting”, NJ Consultants' Network, 6:30 – 8:30 PM, Morris County Library, 30 East Hanover Avenue, Whippany, NJ. Robert Walker, (973) 728-0344, or visit www.TechnologyOnTap.org.

Mar. 15 – May 10 – “Financial Accounting” by Donald Hsu, PhD, 6:30 to 9:00 PM, NJIT, Newark, NJ. Donald Hsu, yanyou “AT” hotmail.com.

Apr. 9 – May 28 – “Project Management” by Donald Hsu, PhD, 9:30 AM to 12:00 PM, NJIT, Newark, NJ. Donald Hsu, yanyou “AT” hotmail.com.

Members and Non-Members Welcome
PLEASE POST

NJ Consultants' Network: **Getting Started in Consulting**

On February 24, 2011, the IEEE Consultants' Network of Northern NJ will host a panel discussion on getting started as an independent consultant.

About the Meeting

How do I get started as a consultant? Why should I? Why shouldn't I? What are the benefits and the downsides?

The panelists will describe what motivated them to become consultants and how they did so. They will address topics such as: forming a business, finding clients, setting fees, insurance, bookkeeping, marketing and promotional materials. Audience participation and questions will be welcomed.

Following the Q&A session, members and guests are invited to continue the networking over dinner at a local restaurant.

About the Panelists

Steven Garfinkel of Ellipsah, LLC. Steven specializes in motion control applications, such as actuators, winches, hoists and robotics. His experience includes design of interfaces, motor drives, power supplies, logic and embedded processors. His capabilities include design of custom motors and magnetic components, as well as FEA analysis. His previous designs have been qualified for military applications. He may be reached at sgarfinkel@ellipsah.com, (973) 432-7401.

Peter Schutz of Schutz Engineering Corp. Schutz Engineering Corp. has been developing new products since 1985, specializing in instrumentation, medical and laboratory equipment. Beyond electronics, expertise includes: mechanical components and systems, plastics, pneumatic and fluid systems, thermal design and analysis, packaging of electronics, enclosures, process control systems, CAD and prototypes. Peter offers a unique association with over 300 technical professionals - electronics, mechanical, optical, and chemical engineers, chemists, metallurgists, technicians, designers, software programmers and machinists. Contact Peter at SchutzE@compuserve.com, 908-638-3300.

Robert Walker of RD Walker Engineering. Robert has been offering analog and digital circuit design services since 1987. His expertise includes communication, sensing, conditioning and control equipment, utilizing discrete design as well as embedded controllers and FPGA's. He specializes in communication systems and develops equipment for telemetry and power line

teleprotection. He offers complete product development services, comprised of production assistance, product reviews and debugging, as well as hardware/firmware integration. Contact him at robert@rdwalker.com, (973) 728-0344.

About the Consultants' Network

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All Welcome!

Free admission. Members and non-members are welcome.

Time: 6:30 - 8:30 PM, Thursday, February 24, 2011.

Place: Morris County Library, 30 East Hanover Avenue, Whippany, NJ. Directions are available at www.mclib.info.

Information: Winter weather may force schedule changes. For up-to-date meeting status, call Robert Walker, (973) 728-0344, or visit our website, www.TechnologyOnTap.org.

News from IEEE-USA:

IEEE-USA President Commends House for Passing Innovation Legislation

Washington (21 December 2010) - IEEE-USA President Evelyn Hirt commends the House of Representatives for passing the America COMPETES Reauthorization Act of 2010 on Tuesday.

The legislation, which the Senate passed on 17 December, authorizes federal investment in science, engineering, innovation, technology and competitiveness, and is designed to help the United States maintain its world leadership in high-technology and create jobs. It will now go to President Barack Obama for his signature.

COMPETES strives to, among other things, prepare students for high-skilled, high-paying jobs by improving science, technology, engineering and math (STEM) education; keeps basic research program budgets on a path to doubling at the Department of Energy Office of Science, the National Science Foundation (NSF) and the National Institute of Standards and Technology (NIST); reauthorizes the Advanced Research Projects Agency for Energy (ARPA-E), which supports high-risk, high-reward transformational energy technology development; and provides loan guarantees "for a project that re-equips, expands, or establishes a manufacturing facility in the United States."

"This legislation is important for the United States as it competes to retain global leadership in technology innovation, research and math and science," Hirt said. "It will enhance needed economic growth and U.S. STEM education, while helping manufacturers become more competitive by supporting innovative manufacturing technologies."

Rep. Bart Gordon (D-Tenn.), outgoing chairman of the House Science & Technology Committee, said on the House floor Tuesday that more than half of U.S. economic growth since the end of World War II in 1945 can be attributed to the development and deployment of new technologies.

"These investments are the path toward sustainable economic recovery and growth and the path toward prosperity for the next 50 years," Gordon said. "There is an undeniable relationship between investments in R&D and the creation of jobs, the creation of companies, and economic growth."

"COMPETES," short for "Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science," is based on recommendations outlined in the 2005 National Academies' report, "Rising Above the Gathering Storm."

From the North Jersey Section's Education Committee: **Hot courses can enhance your position in the job market**

IEEE North Jersey Education Committee ran programming and management courses since 1993. 252 IEEE members and non-members completed these courses. Benefits: Some got jobs at AT&T and Microsoft Corporation.

We need hot courses, instructors and classrooms. If you can teach a hot course (any course that can get people jobs), email your one-page abstract and your resume. If your NJ firm can provide a conference room, evening or Saturday morning, contact Donald Hsu, Chair, [yanyou "AT" hotmail.com](mailto:yanyou@AT.com). Thank-you and act NOW!

Section Executive Committee

Members win NJ Inventors Hall of Fame and Edison Patent Awards

On October 14, 2010, at the 22nd Annual New Jersey Inventors Hall of Fame Awards ceremony, sponsored by Stevens Institute of Technology and Greenberg Traurig, Hoboken, NJ, the following two awards were presented to our EXCOM members. For a list of the other awardees and award categories, go to: http://www.stevens.edu/njinvent/awards/Awards_2010.

Yun-Qing Shi, PhD, Professor, NJIT, was presented with an 'Innovators Award' for "Innovations in Digital Forensics and Security."

Timothy Chang, PhD, Professor, NJIT, received a 'Special Award' for his achievements in the areas of ultra-high precision systems, genetic systems, robotics, and motion control.



L-R: NJ Hall of Fame Awardees Dr. Yun-Qing Shi and Dr. Timothy Chang

On November 4th, at the 31st Thomas Alva Edison Patent Awards Ceremony & Reception, sponsored by the Research and Development Council of New Jersey, the following were presented with a 2010 Thomas Alva Edison Patent Award to:

- Yun-Qing Shi, PhD, Professor, NJIT, from 1987
- Nirwan Ansari, PHD, Professor, NJIT, from 1988
- Zhicheng Ni, doctoral student, NJIT

The awards were given for their US Patent entitled "Systems and Method for Robust Reversible Data Hiding and Data Recovery in the Spatial Domain." The Research & Development Council of New Jersey is a nonprofit organization dedicated to cultivating an environment that supports the advancement of research and development throughout New Jersey. The awards were presented at a ceremony and reception in the IMAX Theater of the Liberty Science Center and those receiving other awards included former Governor Tom Kean. For more about The Research & Development Council of New Jersey and the above awards, go to: <http://www.rdnj.org/>. Then on left, click on 'Awards and Recognition' to see a list of the 2010 Award winners. Finally, click on 'NJIT' to get to a page devoted to the presentation of this award at: <http://www.rdnj.org/q/site/9E5DUNYG5F=non,awards10njit>. On this page are nine photos of the award presentation and a link to a 'Tribute Film' with the awardees explaining the significance of

their patented invention.

The patented invention provides a method of robust reversible data hiding which allows the original digital cover image to be recovered without any distortion once the hidden data has been extracted from the cover medium. This technology has promising applications in digital forensics, intellectual property security, and the transmission of medical images.



L-R: Edison Patent Awardees Dr. Nirwan Ansari, Dr. Yun-Qing Shi, and doctoral student Zhicheng Ni, NJIT

Awardees IEEE Section, Region, and Society Contributions

Dr. Nirwan Ansari, Professor, NJIT, IEEE Fellow, is a past Section Chair, a past member of the Region 1 Board of Governors, and currently serves as the Communications Society Chapter Chair where he has made many contributions including serving a distinguished lecturer. He has contributed over 350 technical papers while serving on the advisory/editorial boards of the IEEE Transactions on Vehicular Technology, Computer Communications, Wireless Communications and Mobile Computing, as well as on other technical journals. He was the founding General Chair of the First IEEE International Conference on Information Technology: Research and Education (ITRE2003), and has served on numerous other technical conference committees.

Dr. Timothy Chang, Distinguished Professor of Electrical & Computer Engineering, NJIT, has been Chair of the Section's Control Systems Society Chapter since 1994. He is also an Associate Editor of the IEEE Transactions on Industrial Informatics. Dr. Chang holds 7 patents with 3 pending. He has published over 70 referred journal and conference papers. He is the author of "Servo Control Design", in Encyclopedia of Life Support Systems, published by United Nations Educational, Scientific, and Cultural Organization (UNESCO).

Dr. Yun-Qing Shi, Professor, NJIT, IEEE Fellow, currently serves as the Chair of the Signal Processing Society Chapter. He holds 14 patents, four of which are in the area of data hiding. He is a contributing member of a number of IEEE technical committees within the IEEE Circuits and Systems and IEEE Signal Processing Societies. He was made a fellow of IEEE for his contribution to Multidimensional Signal Processing. He has written over 250 research papers, a book, numerous book chapters, and other articles. He has given over 100 technical talks and was an IEEE Circuits and Systems Distinguished Lecturer and has been a consistent technical leader on numerous international technical conferences on topics within the above societies.

Dr. Zhicheng Ni, former NJIT doctoral student, is currently with the LSI Corporation, Allentown, PA.



Farmingdale
State College

LISAT2011

**Seventh Annual IEEE Long Island Systems, Applications and Technology Conference
Friday, May 6, 2011**

The Institute for Research & Technology Transfer at Farmingdale State College
State University of New York - Farmingdale, NY

Extended CALL FOR PAPERS, PRESENTATIONS, EXHIBITORS and STUDENT PAPERS

The Long Island Systems, Applications and Technology (LISAT) Conference features several parallel professional tracks including topics in Systems, Applications, and Technology, along with an Exhibit Hall. We are currently soliciting submissions for participation in both the Technical Program and the Exhibit Hall, and are interested in papers, presentations, and exhibits that showcase the development and use of technology by local organizations. LISAT 2011 will also provide the opportunity for select student papers to be presented. Undergraduate and graduate students are encouraged to submit papers in an area of their interest or current work.

Preliminary acceptance to the Technical Program will be based on a 300-to-500-word abstract. Authors of accepted abstracts will be required to provide a six (6) page IEEE standard manuscript (in MS Word or PDF format) for publication in IEEE *Xplore*, and will be required to make a power point presentation at the conference. Manuscripts are subject to the LISAT Technical Program Committee's peer review and may require revision prior to final acceptance. Important dates for the Technical Program are:

LISAT2011 Key Dates	
Abstracts Due	Dec 10, 2010
Notification of Accepted Abstracts	Dec 17, 2010
Manuscripts for Publication (MS Word or PDF) and Copyright Releases Due	March 1, 2011
Notification of Acceptance of Manuscripts (subject to final edits)	March 31, 2011
Presenter Registration, Final Manuscript Edits, and Power Point Due	April 15, 2011
LISAT2011 Conference	May 6, 2011

Detailed instructions on submission, manuscript and presentation templates, and information on the conference, is available on the LISAT web site at www.ieee.li/lisat. **PDF submissions must be generated using the Latex template provided.**

At least one author of *each* paper/presentation must register for the Conference and will be expected to provide a 20-minute presentation at the conference followed by 5 minutes of Q&A. One presenting author will be allowed to register at a discounted rate. A limited number of tutorial and application presentations which will not be published by the IEEE may also be accepted.

While LISAT welcomes a wide variety of papers in systems, applications, and technology, some examples of topics of particular interest are: *Homeland Defense, Alternate Energy Sources, Green Building Technologies, Mobile Communications, Microwave Technology, Electromagnetic Compatibility, Mobile Ad Hoc Networking, Network Security, Sensor Fusion, Antenna Systems and Processing, Radio Locationing, Radar Systems and Techniques, and Medical Electronics.*

For information on **Exhibiting** at LISAT, please contact: Terry Stratoudakis at tns@ieee.org
For all other information contact LISAT2011 Conference Chair: Dave Mesecher at d.mesecher@ieee.org or
Conference Co-Chair Charles Rubenstein at c.rubenstein@ieee.org

LISAT is sponsored by the IEEE Long Island Section and its Technical Society Chapters and IEEE Region 1, in cooperation with the Institute for Research & Technology Transfer (IRTT) at the Farmingdale State College (SUNY).

Releases and Approvals: This conference will be unclassified and attended by both US and non-US persons. It is the author's responsibility to obtain all required company and government releases and approvals prior to making a paper submission. A statement that such releases and approvals have been obtained as well as a completed IEEE Copyright Form (signed by the submitting author) must accompany the manuscript of each accepted paper.

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The 20th Wireless and Optical Communications Conference (WOCC 2011)

April 15 – 16, 2011, Newark, New Jersey, USA

The Twentieth Annual Wireless and Optical Communications Conference (WOCC 2011) will bring together technical experts, scholars and business leaders from the North America and Pacific Rim to discuss emerging technologies, innovative research, and business opportunities. The conference will feature a comprehensive technical program consisting of four symposiums, keynote speakers and panels.

Original technical papers are solicited to the technical areas of the four symposiums, with the topics listed, but not limited to, the following:

Wireless Communications and Networking Symposium

- Modulation, Coding and Signal Processing
- Radio Resource Management
- 3G/4G Wireless Communication Systems
- Network Protocol Performance Modeling & Simulation
- Localization, Target Tracking, and Mobility Management
- Cognitive Radios and Networks
- Mobile Ad-Hoc Networks
- Sensor Networks
- Heterogeneous Networks
- Security in Wireless Networks

Emerging Networks and Future Internet Symposium

- Future Internet and Next Generation Network Architecture
- Future Internet Simulation and Experimentation Platforms
- Network Virtualization and Services
- Convergent Network Architectures and Solutions
- Migration to NGN and Mobile Broadband
- Incorporating Mobility into Future Internet
- Network Design, Planning, and Optimization
- Delay and Disruption Tolerant Networks
- Cloud Computing
- Content Centric Networking
- Social Networks

Important Dates:

Submission Deadline: **December 31, 2010**

Paper Acceptance Notification: **February 15, 2011**

Camera Ready Paper Submission: **March 15, 2011**

All papers accepted by WOCC 2011 will be included in IEEE Xplore and indexed by EI.

Paper submission web site and instructions: <http://edas.info/9561>

Organization Committee:

Technical Program Chair and Vice-Chair: Qinqing Zhang, Johns Hopkins University
Wade Trappe, Rutgers University

Wireless Communications and Networking Symposium Chair: Chonggang Wang, InterDigital

Emerging Networks and Future Internet Symposium Chair: Yanyong Zhang, Rutgers University

Optical Communications and Networking Symposium Chair: Shan Zhong, Ciena Corp

Multimedia Services and Applications Symposium Chair: Yuqing Gao, IBM Research

Optical Communications and Networking Symposium

- Optical Network Design, Planning, and Modeling
- Optical Access and Metro Networks
- Photonic Switching System Architecture
- Optical Passive and Active Components and Devices
- Optical Network Protection and Restoration
- Optical Network Applications
- Optical Fiber Sensor Devices and Networks
- 100 G and Beyond
- High Speed Photonic Integration

Multimedia Services and Applications Symposium

- CDN and Media Networking
- Multimedia Delivery and Transport Protocols
- Secure Multimedia Delivery and Storage
- Peer-to-Peer Network and Applications
- Cloud based Multimedia Computing and Communications
- Multimedia Indexing and Search
- Semantic Aware, Context Aware Multimedia Processing
- Personalized Multimedia Content Access and Distribution
- Smart Phone Mobile Applications
- QoS for Multimedia Applications



Call for Papers

The 34th Sarnoff Symposium May 2-4, 2011 Technologies and Applications for Networked Consumers

Sponsor

**IEEE Princeton/Central Jersey
Section**

Co-Sponsors

IEEE Region 1



Conference Chairs:

Edwin Hou (NJIT)
Pantelis Monogioudis (Alcatel-Lucent)

Technical Program Chairs:

Walid Ahmed (Broadcom)
Roberto Rojas-Cessa (NJIT)
Elias Kpodzo (L-3 Communications)
Shweta Jain (York College CUNY)
Pravin Raghuvanshi (DeVry University)

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Publication Chair:

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Student Poster Chair:

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Tutorial Chair:

Finance Chair:

Registration Chair:

Local Arrangement Chair:

Exhibits & Demos Chair:

Commercial Panel Chair:

Web master:

Silvija Kokalj-Filipovic (Alcatel-Lucent)

Frank O'Brien (IEEE/CS)

Eric Addeo (DeVry University)

Komlan Egho (NJIT)

Since 1978 the IEEE Sarnoff Symposium has been bringing together a tremendous and rich diversity of telecom experts from industry, universities, and government. The popularity of the Sarnoff Symposium, again being held in the historic Nassau Inn located in the heart of downtown Princeton, NJ, continues to grow as the premier forum for researchers, engineers, and business executives in the North East drawing an attendance from all over the world. Besides the technical paper presentations, the Symposium will include *tutorials, student paper poster presentations, executive panels, and exhibition.*

Prospective authors are encouraged to submit a full paper for review. Only original papers that have not been published or submitted for publication elsewhere will be considered. The submission process is carried through the *EDAS conference management system* (<http://edas.info/>). The manuscripts must follow the IEEE two-column format with single-spaced, 10-point font in the text. The maximum paper length is of five (5) pages. A sixth page may be accepted after an additional fee. Submission of a regular paper implies that at least one of the authors will have a full registration to the Conference and present the paper upon the acceptance of the submission. Manuscript template available at: www.sarnoffsymposium.org.

All accepted papers (after review by experts in the field) will be presented in oral sessions, included in the *34th IEEE Sarnoff Symposium Proceedings* and published through **IEEEXplore**. Student papers should be submitted to the Student Papers Chair (praghuwanshi@devry.edu). Prospective tutorial presenters should contact the Tutorials Chair. Detailed procedure is available at: www.sarnoffsymposium.org.

IMPORTANT DATES

Tutorial Proposals Due:	Feb. 3, 2011
Papers Due:	Jan. 28, 2011
Student Papers Due:	Feb. 25, 2011
Notification of Tutorials Acceptance:	Feb. 15, 2011
Notification of Papers Acceptance:	Mar. 4, 2011
Final Version Due:	Mar. 25, 2011

CONFERENCE SCHEDULE

Tutorials:	May 2, 2011
Paper Sessions:	May 3-4, 2011
Exhibits:	May 3, 2011
Poster Presentations:	May 4, 2011

The Symposium is soliciting state-of-the-art papers, tutorial proposals and demonstrators, from both academic and commercial communities, in the following areas of interest.

Consumer Applications and Technologies

- Mobile and converged applications
- Mobile terminal technologies
- Multimedia
- Sensor Applications and Sensor Networks
- Trust, Security, and Privacy

Wireless Technologies

- LTE, 3G and Wi-Fi Systems and Technologies
- Communication and Information Theory
- Heterogeneous Networks (Femtos, Metros, Relays)
- Self Organizing Networks
- Beyond 4G Communications
- Cognitive Radio Systems
- Wireless Components

Networking

- Broadband Access / Core Networks
- Network Architectures
- Overlay & Peer-to-Peer Networks
- Network Theory
- Optical Communication Networks and Components

Internet Regulation and Green Communications

- Renewable Energy for Communication Networks
- Communications for enabling the Smart Grid
- Charging and Net Neutrality

Call for Demonstrators

This year Sarnoff offers *free exhibition space* for all students and startups that can demonstrate their application/prototype implementations. We are particularly interested to hear from students/startups active in applications development for smartphones and tablets.

IEEE North Jersey Section Course Project Management

*Saturday mornings, April 9, through May 28, 2011
Eight weekly classes (April 9, 16, 23, 30, May 7, 14, 21, 28, 2011)*

*New Jersey Institute Technology, Newark, New Jersey
(Checks should not be mailed to this address)*

IEEE North Jersey Section thanks New Jersey Institute Technology for sponsoring this course

The North Jersey Section IEEE is offering an evening course entitled "Project Management". Dice.com lists 5800+ Project related jobs in the New York tri-state area daily! This course will help you to break down a master project into manageable tasks, pinpoint possible solutions, and provide information to keep the project under control. Using Microsoft Project software, you will learn to accomplish various project plans. In addition, it will greatly enhance your business, communications and interpersonal skills.

You will receive the IEEE certificate of completion when you finish the course. You may wish to take two Certification exams, one in *Project Management* administered by Project Management Institute from the knowledge that you learned in this course. (This is *not an exclusive PMP-PMI examination prep course*. No PDUs are issued for PMP eligibility. CEU credits would be given by IEEE)

Instructor: **Donald Hsu, PhD.**, has been a corporate manager for 11 years and an experienced trainer. Since 2000, he has trained 1200+ in IT Project+, MS Project, Project Management, Contract Procurement Management, and International Management.

TOPICS

1. Explain the need for a project manager
2. Define SOW, PERT, GANTT, CPM, and Scope of the project
3. Identify the team members, resources and plan for the strategy
4. Calculate schedule, budget variances, and monitor project progress
5. Manage changes, estimates, and communications
6. Set a baseline, import tasks from MS Excel, export MS Project files to MS Word
7. Create and modify custom reports, templates and combination views
8. Share resources and create a master plan loaded to Project Server
9. Approve updates and conclude a project plan
10. Analyze global E-Commerce projects
11. Present student Projects

WHERE: New Jersey Institute of Technology, Newark, NJ.
WHEN: 8 Saturdays, April 9, 16, 23, 30, May 7, 14, 21, 28, 2011, 9:30 AM - 12:00 noon
COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.
CONTACT: Donald Hsu: yanyou "AT" hotmail.com

REGISTRATION: Project Management

Please mail the registration form with the check (**Checks payable to "North Jersey Section IEEE"**) to
Donald Hsu, Chair Education Committee, IEEE North Jersey Section, P. O. Box 2093, Fort Lee, NJ 07024

Name: _____ Email address _____

Non-member

IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**

As soon as a completed registration form and the payment are received, you are officially registered for this course. Registration status will be notified by email.

I wish to receive the IEEE Completion Certificate

Signature: _____

IEEE North Jersey Section Course Financial Accounting

Tuesday, March 15, 2011 through May 10, 2011
Eight weekly classes (March 15, 22, 29, April 5, 19, 26, May 3, 10, 2011)

New Jersey Institute Technology, Newark, New Jersey
(Checks should not be mailed to this address)

IEEE North Jersey Section thanks New Jersey Institute of Technology, for sponsoring this course.

The IEEE North Jersey Section is offering a course entitled "Financial Accounting". US Bureau Labor Statistics reports that 2.1 million Accounting jobs need to be filled by 2019. Indeed.com lists 25,000+ accounting jobs in the New York tri-state area daily! This course will cover the fundamentals of debit, credit, inventory, cost of goods sold, cash flow, internal control, operating assets, liability, owner's equity, income measurement, accrual accounting, time value of money, tax issues, and financial statement analysis. In addition, QuickBooks software will be used. QuickBooks is currently employed by 4 million small business owners in USA.

You will receive the IEEE Certificate of Completion when you finish the course. You may use the knowledge from this course, to find accounting jobs. Or you can start your own company using QuickBooks to keep track of the revenues and expenses.

Instructor: **Donald Hsu, Ph.D.**, has been a corporate manager for 11 years and is an experienced trainer. Since 2004, he has trained 300+ people in accounting, personal finance, investment analysis, QuickBooks, and PeachTree courses in 4 organizations.

TOPICS

12. Learn accounting as a form of communication
13. Define debit, credit, annual report, and accounting information
14. Generate income measurement and discuss accrual accounting
15. Distinguish inventory, costs of goods sold, cash and internal control
16. Build receivables and investments using time value of money
17. Explain fixed assets, property, plant, equipment, and tangibles
18. Understand long-term liabilities and stockholder's equity
19. Perform financial analysis, cash flow and various Excel computations
20. Use QuickBooks software to set up charts of accounts
21. Present student Projects

WHERE: New Jersey Institute of Technology, Newark, NJ
WHEN: Eight Tuesdays, March 15, 22, 29, April 5, 19, 26, May 3, 10, 2011, 6:30 to 9:00 PM.
COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.
CONTACT: Donald Hsu, yanyou "AT" hotmail.com

REGISTRATION: Financial Accounting

Please mail the completed registration with a check (payable to "North Jersey Section IEEE") to:
Donald Hsu, Chair Education Committee, IEEE North Jersey Section, P.O. Box 2093, Fort Lee, New Jersey 07024.

Name: _____ Email address _____

Non-member

IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**

After you sent the completed registration form with a check, you will receive an email confirming your registration.

I wish to receive IEEE Completion Certificate

Signature: _____

Professional Development Course
IMPROVING YOUR WRITING SKILLS – TIPS & TECHNIQUES

(Four weekly classes on Wednesday, January 5, 12, 19, 26, 2011)

Location: DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ
(Do not mail checks here)

IEEE North and Central Jersey Sections thank DeVry University for hosting this course.

When you write an email, test report, technical memo, manual or formal job search correspondence, there are some valuable “best” practices to make the process easy and your documents clear. Upon completion of IMPROVING YOUR WRITING SKILLS–TIPS, & TECHNIQUES, attendees will be able to plan, organize and prepare effective business correspondence, e-mails, memos, reports and job search documents (resumes, cover letters) for select external and internal readers.

Instructor: **Wilma Hurwitz** is a training consultant and executive coach specializing in verbal and written workplace communications, presentation skills and customer service techniques. Key communications clients have included Alcatel-Lucent, (network systems), Jersey Central Power & Light, Pershing Division of Bank of NY Mellon and GlaxoSmithKline. Since 2007, she has also been a freelance writer with the Morris County Daily Record authoring select business feature articles and cover stories. She is currently their weekly columnist covering Morristown area restaurants.

TOPICS

- The Communication Model – what it is, how it works
- Different purposes for written communications: editorial, informational, good/bad news, directive and persuasive
- Who is/are your reader(s)? What do they want to achieve upon reading your document?
- Writer’s “block” – how to get started with your communication
- Structuring your message
- Writing sentences – the “fog” index and how to avoid it
- Developing your document – use of language, flow of key points
- Grammar – some essential rules to ensure that our writing is clear
- Beyond “spellchecker” – some guidelines for proofreading
- Special documents – praise, instructions, new concept presentation and communicating about change.

Methodology: IMPROVING YOUR WRITING SKILLS–TIPS & TECHNIQUES is delivered via discussion, Q&A, document preparation and review of different writing samples throughout the program. Assignments will be made to address individual business writing needs. Special attention will be given to those attendees for whom English is a second language.

To allow for individualized instruction, class size is limited to the first 22 registrations. Additional courses may be held in the future. IEEE will be offering CEUs (PDUs) at an additional cost of \$25 per person if you would like to get CEU (1.0) or PDU (10 hours) credit.

WHERE: DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ
WHEN: Four evenings, Wednesday, January 5, 12, 19, 26, 2011 from 6:30 to 9:00 PM.
COST: IEEE members \$200; Non-IEEE members \$275; Student/Unemployed members \$100 (add \$25 for CEU/PDUs)
CONTACT: Larry Yang, yangl “AT” ieee.org

DEADLINE: December 31, 2010 REGISTRATION: IMPROVING YOUR WRITING SKILLS – TIPS & TECHNIQUES

Please mail the completed registration with a check (payable to “North Jersey Section IEEE”) to: **Larry Yang, Chair GOLD Committee, IEEE North Jersey Section, 9 Braemar Court, Parsippany, NJ, 07054.** Or register and submit payment online at: http://meetings.vtools.ieee.org/meeting_view/list_meeting/4271 Refunds will only be mailed back if course is cancelled or you withdraw before the registration deadline.

Name: _____ Email address _____
____ Non-member
____ IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**
As soon as the completed registration form and the payment are received, you are officially registered for this course.
Registration status will be confirmed by email.

____ I wish to receive IEEE CEUs/PDUs, \$25 extra Signature: _____

Professional Development Course

DEVELOPING YOUR PRESENTATION SKILLS – TIPS & TECHNIQUES

(Four weekly classes on Wednesday, February 2, 9, 16, 23, 2011)

Location: Advanced DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ
(Do not mail checks here)

IEEE North and Central Jersey Sections thank DeVry University for hosting this course.

If you are saying a few words” to a client prospect, giving a detailed explanation to some technical experts, interviewing for a new job or preparing a sales presentation, it can be a challenge to deliver an effective presentation. DEVELOPING YOUR PRESENTATION SKILLS–TIPS & TECHNIQUES will cover what it takes to plan, organize, develop and deliver effective presentations for any audience.

Instructor: **Wilma Hurwitz** has managed design, marketing and delivery of over 200 industry conferences, trade shows and special events on information technology; software project management; manufacturing; plastics, metals and packaging technology; financial services and supply chain management. Clients include Alcatel-Lucent (network systems), Honeywell, American Electronics Association, Administrative Management Society, Rutgers Center for Management Development, NYU School of Continuing Education and Boston University Center for Project Management. For some of these events she has been a presentation skills coach to individual software project managers and technical marketing/sales executives.

TOPICS

- Different kinds of presentations (informational, persuasive, good/bad news)
- Your audience and their expectations
- How to structure your presentation – key points, supporting information, presentation flow
- Selecting the right audio-visuals to get your points across
- Pre-performance practice and staging
- Actual performance -- on-site delivery considerations: problem listeners, handling nervousness, handling questions
- Post-presentation debrief – What went well? What needs improvement?

Methodology: This course is presented via class discussion, Q&A, case studies, exercises and actual practice in class. In order to provide individual attention, class size is limited to the first 22 registrations. Additional courses maybe held in the future. IEEE will be offering CEUs (PDUs) at an additional cost of \$25 per person if you would like to get CEU (1.0) or PDU (10 hours) credit.

WHERE: DeVry University, Room 2019, 630 U.S. Route One, North Brunswick, NJ

WHEN: Four evenings, Wednesday, February, 2, 9, 16, 23, 2011, 6:30 to 9:00 PM.

COST: IEEE members \$200; Non-IEEE members \$275; Student/Unemployed members \$100 (add \$25 for CEU/PDUs)

CONTACT: Larry Yang, yangl “AT” ieee.org

DEADLINE: January 29, 2011 REGISTRATION: DEVELOPING YOUR PRESENTATION SKILLS – TIPS & TECHNIQUES

Please mail the completed registration with a check (payable to “North Jersey Section IEEE”) to: **Larry Yang, Chair GOLD Committee, IEEE North Jersey Section, 9 Braemar Court, Parsippany, NJ, 07054.** Or register and submit payment online at: http://meetings.vtools.ieee.org/meeting_view/list_meeting/4273 Refunds will only be mailed back if course is cancelled or you withdraw before the registration deadline.

Name: _____ Email address _____

___ Non-member

___ IEEE Member Member #: _____

Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**

As soon as a completed registration form and the payment are received, you are officially registered for this course. Registration status will be notified by email.

___ I wish to receive IEEE CEUs/PDUs, \$25 extra

Signature: _____