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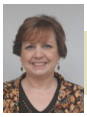

Chair's Message

By Susan Frank, Chair IEEE Long Island Section

Hello again. I hope you've enjoyed Memorial Day weekend and managed to break away from the endless responsibilities that seem to fall on the shoulders of engineers and technology specialists. It is not only good for you and your family; it is good for your employer as well.

It is with deep sadness that I inform you of the passing of Irwin Weitman, a long time PACE activist and Consultants Network pioneer. Irwin was a warm-hearted engineer who loved his work, and made great contributions to the IEEE. All of his friends here at the Long Island Section will miss him dearly.

As we get ready for summer, it is time to reflect back on the accomplishments the members of the Long Island Section have made so far this year. First, take a look inward and thank yourself for your contributions to our country, environment, and humanity. If you are currently unemployed, you should thank yourself for your past and future contributions, and/or whatever endeavors your busy mind has come up with. In fact, reminding yourself of your accomplishments on a regular basis may help keep your confidence up so that you can land that dream job in short order.

I would like to thank the many volunteers who work hard to bring a wide variety of technical meetings and events to our members. Countless hours were spent by dozens of volunteers, presenters, and exhibitors to bring together the 2012 IEEE Long Island Systems, Applications and Technology Conference on Friday, May 4, 2012 at Farmingdale State College. Excellent papers from four parallel tracks in Systems, Applications, and Technology will be published in IEEE Xplore.

During the month of May, in addition to LISAT, the Employment Assistance Committee sponsored a Job Fair, and society meetings were held by the Computer Society, Aerospace & Electronics Systems Society & AIAA, and the IEEE Consultants Network of Long Island. The future Entrepreneurs' Network has started the process of formally becoming an IEEE entity, and several more members required for a new Affinity Group.

I hope you have a great summer. We continue to hold meetings during the summer. Check the IEEE Long Island Section Calendar in this newsletter, or our website, for details about the many technical meetings, conferences, and workshops. If you wish to attend the monthly Executive Committee meeting please drop me an email so I can add your name to the attendance list.

Best Regards,
Susan Frank
Chair IEEE Long Island Section
chairman@IEEE.LI

Calendar of Events

June 2012

June 6th
IEEE Consultants Network of Long Island
Smartphones, What, How and why?
By Peter Buitenkant
Briarcliff College, The Great Room - Bethpage, LI
7:00pm

June 6th
First Annual IEEE Region 1 MTT-S Distinguished Microwave Lecture and Speaker Bureau Series
Micromachined Microwave and Millimeter Wave Circuit Design
By Dr. Shiban K. Koul
6:00pm Refreshments 6:30pm Lecture
L-3 Communications Narda Microwave - Hauppauge, LI

June 7th
Engineering in Medicine & Biology Society Meeting
The Remarkable Human Ear, An Engineer's Viewpoint
By Marty Kanner
6:30pm Refreshments 7:00pm Lecture
NYU-Poly - Melville, LI

June 14th
Aerospace & Electronic Systems Society & AIAA Joint Meeting
The Future of U.S. Robotic Planetary Exploration
By Randii Wesson
6:00pm Networking 6:30pm Dinner
7:30pm Lecture
56th Fighter Group - Farmingdale, LI

June 20th
Photonics Society of IEEE Long Island Section
Semiconductor Lasers for Metropolitan Optical Networks
By Adam A. Filios
6:00pm Refreshments 6:30pm Lecture
Farmingdale State College - Farmingdale, LI

August & September 2012

August 1st
IEEE Consultants Network of Long Island
Briarcliff College, The Great Room - Bethpage, LI
7:00pm

August 19th
Aerospace & Electronic Systems Society & AIAA Joint Meeting
Sr-71 Blackbird - An Engineering Marvel
By Richard Graham

August 27th
EXCOM Meeting
6:15pm Dinner 6:45pm Meeting
Telephonics - Farmingdale, LI

September 5th
IEEE Consultants Network of Long Island
Briarcliff College, The Great Room - Bethpage, LI
7:00pm

September 24th
EXCOM Meeting
6:15pm Dinner 6:45pm Meeting
Telephonics - Farmingdale, LI

For more information about these meetings and lectures, please visit:
http://www.IEEE.LI/calendar/index.htm

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The IEEE LI Section Website

The IEEE LI Section website is update regularly to reflect recent section activity and upcoming events. Each society and affinity group has a dedicated page which describes their function and includes contact information.
Visit our site at: www.IEEE.LI

Consultant's Network of Long Island

The Consultant's Network of Long Island maintains a referral service of engineering, computer, managerial & technical professionals. For more information, please visit their website at www.consult-li.com.

Membership Development

For more information on membership with the Long Island Section of the IEEE contact:
Nikolaos Golas 631-755-7059
membership@IEEE.LI

June Lectures & Seminars

First Annual IEEE Region 1 MTT-S Distinguished Microwave Lecture (DML) and Speaker Bureau (SB) series is presenting a lecture titled:

High Performance Micromachined (MEMS) Microwave and Millimeter Wave Circuit Design

By Dr. Shiban K. Koul
Wednesday, June 6, 2012
Refreshments 6:00pm Lecture starts at 6:30pm
L-3 Communications Narda Microwave - Hauppauge, LI

Who Should Attend? Engineers with an interest in the design, modeling, and evaluation of microwave and millimeter wave micromachined passive circuits, switches and antenna elements.

Abstract: Micromachining has been applied to microwave and millimeter wave field to create low loss and high performance passive/active components and antennas. In this talk, starting from modeling of transmission lines and discontinuities, design procedure to realize passive components will be presented. Next, design, modeling and fabrication of different types of micromachined antennas will be described. Methodology for the design, development and fabrication of RF MEMS switches on GaAs, alumina, Quartz and Silicon will then be presented. The schemes for developing reconfigurable RF MEMS circuits using either variable capacitors or RF MEMS switches will be discussed. The reconfigurable circuits include: a band pass filter, band stop filter, high isolation switch and a patch antenna.

About the Speaker: Dr. Shiban K Koul is a Professor at the Indian Institute of Technology Delhi. He is also the Chairman of Astra Microwave Products Limited, Hyderabad, a major company involved in the Development of RF and Microwave systems in India. His current research interests include: RF MEMS, Device modelling, Microwave and Millimeter wave IC design and Reconfigurable microwave circuits including antennas. Dr. Koul has served as the Chairman of IEEE ED/MTT Chapter, India Council. Currently, he is the Chairman of Delhi section and also chairman of the Microwave Theory and Techniques Chapter under Delhi section. He is currently a serving ADCOM member and a Member of IEEE MTT society's Technical committees on Microwave and Millimeter Wave Integrated Circuits (MTT-6) and RF MEMs (MTT-21), Member of India Initiative team of IEEE MTT-S, Membership Services Regional Co-coordinator India, Vice Chair MGA and MTT-S Speaker bureau lecturer. Dr. Koul is the author/co-author of 199 Research Papers and 7 state-of-the art books and holds 6 patents and 6 copyrights. He is a Fellow of the Institution of Electrical and Electronics Engineers, USA (IEEE), Fellow of the Indian National Academy of Engineering (INAE) and Fellow of the Institution of Electronics and Telecommunication Engineers (IETE).

Registration: Registration is required and is available ONLY online. A photo ID is needed to enter the facility. Please visit the calendar page of the IEEE Long Island Website www.IEEE.LI, click on the registration link, and fill out the form.

Lecture Coordinators (mtt@ieee.li):
Eric Darvin, MTT Chairman for the IEEE Long Island Section
Saikumar Padmanabhan, MTT Vice Chairman for the IEEE Long Island Section

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The Long Island Chapter of the IEEE Engineering in Medicine & Biology Society (EMBS) is presenting a lecture titled:

The Remarkable Human Ear, An Engineer's Viewpoint

By Marty Kanner
Thursday, June 7, 2012
Refreshments 6:30pm Lecture starts at 7:00pm
NYU Poly (Room 117 on second floor) - Melville, NY

Abstract: Mr. Kanner will describe his research and understanding of the human ear, including a power point presentation and demonstration in which he will perform some simple and brief testing on attendees. The test is interactive and demonstrates the three levels of AGC (automatic gain control), in hearing. No hearing test ever checked this remarkable ability of the human hear.

About the Speaker: Mr. Kanner has a long and distinguished career in analog design …including long stints at Grumman and Fairchild Camera, where he provided key inputs to the developments of the OAO (Orbiting Astronomical Observatory), LEM and the F14. At Fairchild he developed high performance switching power supplies and the controls for the Space Station Camera that could be operated in various modes, controllable from the Earth. He published over 12 technical articles in engineering trade magazines and holds three patents. He was also accepted to Tau Beta Pi and Eta Kappa Nu honor societies.

Registration: Please register online at the calendar page of the IEEE Long Island Website by clicking on the registration link and filling in your registration information; all are invited and the lecture is free.

Seminar Coordinator: John F. Vodopia, Esq., Chair for IEEE EMBS, LI Section jvodopia@ieee.org

Long Island's Electronic History

By Jesse Taub, IEEE Long Island Historian

BROWSING THE PULSE ARCHIVE

Thanks to Rod Lowman, our Historian for many years, who has saved issues of The Pulse since it first publication in 1952 and Jim Colotti, our webmaster, who placed many of them on our ieee.li website, one can get a good picture of what it was like to have been an IEEE/IRE member in the past. I plan to write a series of articles featuring different decades. Let's start with looking at samples from the 1950's.

The first edition of The Pulse was published in September 1952. We were still a subsection of the New York IRE Section but we had many of our own activities. The main speaker was none other than Dr. Claude Shannon of Bell Labs. We all knew him as the father of information theory. His talk was on training a mouse to get out of a maze using logic circuits and relays. Another talk was on the emerging field of microwave spectroscopy. Another article, by the Sub-section Chairman, Charles Hirsch of Hazeltine, was on applying to the IRE for full Section status.

The March 1955 issue described the forthcoming Awards Ceremony where we were honoring four new Fellows. There were no such things as Region 1 or Section Awards. The Polytechnic Institute of Brooklyn had an article on their forthcoming Symposium on Modern Network Synthesis. There was also material describing the IRE National Convention where 40,000 attendees were expected. It was held at the Kingsbridge Armory in the Bronx. This convention became Electro after the IEEE was formed in 1963 and no longer exists. IEEE conventions are now more specialized and run by the Technical Societies.

The March 1958 issue had a new Editor, Rod Lowman and it featured a one page advertisement by Airborne Instruments Laboratory on some of its new developments. They had started a monthly series of technical ads in mid-1955 that proved to be very popular. The Pulse also announced four new Fellows. In addition, the Section was planning field trips to Brookhaven National Laboratory and Press Wireless. Press had a wireless telegraphy receive and transmit station on eastern Long Island.

The June 1959 issue described a field trip to Idlewild Airport (the name was changed to JFK many years later) to see their air traffic control system. There was also a talk on medical electronics, which was still an emerging technology.

One of the issues of The Pulse polled the membership on which aspects of engineering had the most interest. The top five in the 1950's were Transistor Development, Cybernetics, Magnetic Amplifiers, Ferrites and Physiological Applications of Electronics (medical electronics). Transistor Development was still in its early stages. The state of Cibernetics or computer engineering was still primitive. Software coding was a new subject and vacuum tubes were just beginning to be replaced by discrete transistors; the IC chip was still to come. Magnetic Amplifiers was a hot topic but it is now an obsolete technology. Ferrites is now a mature technology. Finally, medical electronics, which was just starting is now a real industry.

I found browsing through these old The Pulse issues a rewarding experience. You may find other things of interest to you. In any event, time looking at old The Pulse issues will be well spent.

June Lectures & Seminars (continued)

Aerospace & Electronic Systems Society & AIAA Joint Meeting is presenting a lecture on:
The Future of U.S. Robotic Planetary Exploration
By Dr. Randii Wessen, Senior Technical Staff, Jet Propulsion Laboratory
Thursday, June 14, 2012
6:00pm Networking 6:30pm Dinner 7:30pm Lecture
The 56th Fighter Group Restaurant - Farmingdale, NY

Abstract: As the millennium closed, so did the era of large planetary spacecraft that were launched once per decade. Future robotic spacecraft will have a wide range of capabilities, diverse mission objectives, and be launched almost one per year. Among the many types of missions, some will be the landers and sample return missions of tomorrow. To meet these bold endeavors, these ambassadors from Earth will require advanced mission concepts, new operational approaches, as well as technologies that have yet to be developed. To organize this effort, the US robotic planetary exploration program has been divided into four themes: Earth; Mars; Solar System; Universe. This presentation will describe each of these areas, the major missions currently in operation, and those being planned. It will also have a special emphasis on the quest for extrasolar planets and the search for life in the cosmos.

About the Speaker: Dr. Wessen has been at Cal Tech's Jet Propulsion Laboratory for 28 years. He is currently the Senior Technical Staff to JPL's Innovation Foundry. Previously, he was the System Engineer for the Navigator Program (goal: detection of Earth-like planets around other stars), Telecommunications & Mission Systems Manager for the Mars Program, Supervisor for the Science System Engineering Group, Manager of the Cassini Science Planning & Operations Element, Galileo Deputy Sequence Team Chief, and Voyager Science Sequence Coordinator for the Uranus & Neptune encounters. He received a BS in both Physics & Astronomy, a MS in Astronautics, and a Doctorate in Operations Research. He co-authored the books "Neptune: the Planet, Rings and Satellites" & "Planetary Ring Systems." He was the recipient of NASA's Exceptional Service Medal for his contributions to the Voyager 2 Neptune Encounter and has ten NASA Group Achievement Awards. Dr. Wessen is a fellow of both the Royal Astronomical Society and the British Interplanetary Society and an Associate Fellow of the AIAA. Asteroid Randiiwessen is named in his honor.

Cost: $25.00 for members and guests and $10.00 for students.

Registration: **RESERVATIONS REQUIRED**. RSVP BY June 13, 2012 to David Paris at davidsparis@optonline.net **or** (516) 458-8593

Industry News

Town of Hempstead Blows Past 100,000 Kilowatt Hours; Wind Turbine Now Powers Town's Hydrogen Fuel Station

With a high-powered wind turbine at the Department of Conservation and Waterways, Supervisor Kate Murray and the Town of Hempstead have blown past the 100,000-kilowatt hour mark, generating over 128,000 kilowatt hours in just 24 weeks. The wind turbine, erected in December 2011, currently provides power to Long Island's only hydrogen fueling station. This amazing accomplishment confirms Murray's vision that the answer to clean, renewable energy is truly "blowin' in the wind."

Sitting behind the wheel of a hydrogen fuel cell-powered town vehicle – the fuel created as the result of the wind turbine powering the town's water-to-hydrogen conversion process – Murray drove through a "finish line" banner marking the passing of 125,000 kilowatt hours.

To date, the wind turbine has provided an estimated 128,000 kilowatt hours. To put this in perspective, the amount of energy generated could power 14 Long Island homes (based on the average home's electricity demand) for an entire year! What's more, according to LIPA, the wind turbine is well on its way to generating between 180,000 and 240,000 kilowatt hours annually.

At the town Department of Conservation and Waterways, the wind turbine is used to power a water-to-hydrogen conversion process that results in the creation of hydrogen fuel. This fuel is then stored on location at the town's hydrogen fueling station, utilized by the town's fleet of Toyota fuel-cell vehicles, which include a hydrogen/natural gas bus.

Energy experts estimate that the United States produces over 2,200 million metric tons of carbon dioxide annually to create electric power. In fact, if the town had produced these 128,000 kilowatt hours of energy using standard fossil fuels, over 171,000 pounds of carbon dioxide would have been created. Instead, utilizing the wind turbine, the town has generated these 128,000 kilowatt hours without creating a single pound of carbon dioxide.

The wind turbine, which cost an estimated $615,000, was funded through a $4.6- million United States Department of Energy grant secured by the Town of Hempstead. The town has also utilized this grant to finance the construction of a 60K solar field, two solar trackers (solar panels which follow the path of the sun), a solar-powered carport and a geothermal energy project that will address heating and cooling needs at the town's Conservation and Waterways facility.

IEEE Medal of Honor Recipient

John L. Hennessy, President of Stanford University Named 2012 IEEE Medal of Honor Recipient

IEEE Fellow and Stanford University President, John L. Hennessy, who pioneered the RISC (Reduced Instruction Set Computer) processor architecture and demonstrated exceptional leadership in computer engineering and higher education, has been named recipient of the 2012 IEEE Medal of Honor, IEEE's highest award.

Hennessy was a co-recipient of the 2000 IEEE John von Neumann Medal for outstanding achievements in computer-related science and technology, and has received numerous other awards for his work, including being named in 2005 the first holder of Stanford's Bing Presidential Professorship.

Sponsored by the IEEE Foundation, the IEEE Medal of Honor will be presented along with 21 other IEEE medals and recognitions at the IEEE Honors Ceremony on Saturday, June 30, 2012 in Boston, Mass.

Read the full list of 2012 IEEE Medal and Recognition Recipients

If you know someone who may meet the criteria for an IEEE-Level Award, visit www.ieee.org/awards or call (732)562-3844 to learn more about the IEEE Awards Program and nomination process.

IEEE Section Announcements

May 14, 2012

An individual, one who installed confidence in others which have let to their successes in their specific fields of endeavors' has passed away.

Irwin Whitman, one of the Founding Fathers of the "National Consultants Network", an individual of exceptional caliber, in addition to being a fine gentleman in every sense of the word, has made his way to heaven.

In over twenty-two years, having the privilege of being associated with Irwin, certainly a best friend, I always knew that he made an exerted effort to attend all functions. Later on in his life, he sometimes gave me the honor of describing that which had occurred at the "L.I.C.N." meetings when we both attended "ExCom" meetings.

We have lost a fine gentleman, but like all very prominent gentleman, his mission entrusted to others will always live on!

John H. Peterson
Proud Member "IEEE"

June Lectures & Seminars (continued)

The Photonics Society of IEEE Long Island Section is presenting a lecture on:

Semiconductor Lasers for Metropolitan Optical Networks

By Adam A. Filios

Wednesday, June 20, 2012

6:00pm Refreshments 6:30pm Lecture

Farmingdale State College, Gleeson Hall, Room 202 - Farmingdale, NY

Abstract: Optical fiber communications have experienced phenomenal growth over the past decades, enabled by the enormous bandwidth offered by optical fiber transmission and fueled by the ever-increasing demand for the transmission and processing of vast amounts of information. The Internet, teleconferencing, cell phones and other mobile communications technologies, have already transformed the way we live and do business even though they have only been around for a short period of time compared to other technologies. New applications such as video-on-demand, Internet telephony (VOIP), and Internet Television (IPTV) are quickly becoming very popular. All these could not have been possible without the speed and capacity offered by fiber optics. Although long haul optical fiber transmission has been around for many years, fiber optic systems only now are starting to penetrate in the metropolitan and regional markets, with applications such as Fiber-To-The-Home (FTTH) and others. These metropolitan and access optical networks are far more sensitive to terminal equipment costs than their long-haul counterparts. Therefore, they can greatly benefit from the use of low-cost and compact transmitters such as Directly Modulated Lasers (DMLs), Vertical Cavity Surface Emitting Lasers (VCSELs), and Electro-absorption Modulated Lasers (EMLs). A major impairment of these semiconductor lasers is their frequency chirp, which is the inherent dynamic frequency shift by several GHz around the laser nominal frequency. Chirp interacts with the chromatic dispersion of the optical fiber, creating intersymbol interference and severely limiting system performance. In this talk, we discuss some of the characteristics of these semiconductor lasers as well as techniques used to mitigate the effects of frequency chirp and enhance system performance.

About the Speaker: Dr. Adam A. Filios is an Associate Professor at the Department of Electrical and Computer Engineering Technology, and the director of the Solar Energy Center at Farmingdale State College. Prior to joining Farmingdale State in August 2006, he was a senior researcher with Nanodynamics Inc., in New York, where he worked on wide-bandgap materials, silicon photonics, and nanoscale integrated systems. In 2000, he joined Corning's Photonics Research and Test Center in Somerset NJ, as a senior research scientist, and worked in the research and development of novel nanoscale optoelectronic devices, optical communication systems and optical fibers. He has also served as a tenure-track assistant professor of Engineering at Johnson C. Smith University (JCSU) in North Carolina for two academic years (1998 – 2000). He received the B.Sc. degree in Physics from the University of Athens, Greece, in 1991, and the M.S.E and Ph.D. degrees in Electrical Engineering from the University of North Carolina at Charlotte, in 1994 and 1999 respectively. His current research interests include nanoscale materials and devices, nanoelectronics and nanophotonics, silicon photonics, photovoltaics and fiber optic communications. He is a member of the Institute of Electrical and Electronics Engineers (IEEE), and past member of the American Physical Society (APS), the Optical Society of America (OSA), the American Society for Engineering Education (ASEE), and the Materials Research Society (MRS).

Registration: Please register online at the calendar page of the IEEE Long Island Website by clicking on the registration link and filling in your registration information; all are invited and the lecture is free.

Seminar Coordinator: M. Nazrul Islam, PhD Chairman, Photonics Society of IEEE Long Island Section http://www.ieee.li/photonics/index.htm

IEEE Foundation Grants

IEEE Foundation grants are made possible thanks to our donors who generously give to the three grant making funds of the IEEE Foundation; the IEEE Foundation General Fund, the IEEE Humanitarian Technology Fund and the IEEE Life Members Fund.

The IEEE Foundation awards grants to IEEE units and other charitable organizations for innovative projects that further the scientific and educational purposes of IEEE.

To be considered for grant funding, your project should have a clearly defined objective and provide support in the focus areas of education, history of technology and applying technology for humanitarian causes.

Education: The IEEE Foundation supports projects that expand and enhance engineering, science and technology education opportunities for teenagers through mid-career professionals to positively impact workforce development and involvement in IEEE.

History of Technology: The IEEE Foundation supports projects that increase awareness among the general public of the impact and influence of early technology on the present and future.

Applying Technology for Humanitarian Causes: The IEEE Foundation supports projects that implement or disseminate replicable, sustainable, technology-based solutions for humanitarian issues in underserved and underprivileged areas.

The IEEE Foundation reviews grant applications in two cycles per year. Submissions are accepted until 11:59 p.m. Eastern Time on the deadline dates. The next 2012 grant application deadline is July 24, 2012.

If your Unit, Section or Chapter has an innovative project in the areas of interest mentioned above, you are welcome to apply for a grant through the IEEE Foundation Web page. Prior to submitting an application, please review the IEEE Foundation's grant guidelines. All the information you need about applying for a grant can be found at www.ieeefoundation.org.

Industry News

U.S. Navy demonstrates Telephonics' Radar on MH-60S Helicopter

Telephonics Corporation announced that the U.S. Navy conducted an exercise to demonstrate several Anti Surface Warfare concepts of operation using an MH-60S (Sierra) helicopter in conjunction with a Fire Scout Unmanned Aerial Vehicle. The exercise included the use of Telephonics' multi-mode, maritime surveillance radar on the MH-60S.

The demonstration took place at the Chesapeake, MD Test Range, and it highlighted the ability of the radar to rapidly perform wide-area surveillance and to automatically detect and track surface contacts over wide areas. Provided with a surface surveillance picture, the crew of the MH-60S is able to classify targets of interest using the high resolution inverse synthetic aperture radar (ISAR) imagery from the radar and to direct the Fire Scout to specific contacts of interest for identification with its on-board electro-optic/infra-red (EO/IR) sensor. These EO/IR images were also linked back to the Sierra via an L-3 Communication Systems West VORTEX data link providing them with valuable tactical situational awareness. Additionally, the MH-60S linked both radar information (Tracks, ISAR, and SAR (synthetic aperture radar) imagery) and EO/IR full motion video, again via the VORTEX data link, to the Patuxent River Surface/Aviation Interoperability Laboratory (SAIL).

The exercise also demonstrated the ability of the U.S. Navy with industry partners; Telephonics, Lockheed Martin, and L-3 Communications to go from concept to prototyping to demonstration of a seamless congruence of complex technologies in months not years. The U.S. Navy provided its Fire Scout asset, and Lockheed Martin coordinated the industry team to install equipment on board the MH-60S, including the Telephonics radar and the L-3 VORTEX data link installed on both the MH-60 Sierra and MQ-8B Fire Scout. All data coming from Fire Scout was transmitted and received via the L-3 data link.

Jobs Corner

All of the following positions require a TS/Full Scope polygraph; they are all on the Ft Meade installation as well. Looking to hire immediately, please forward your resume to Blair Alexander at BAlexander@UniverCityStaffing.com

Systems Engineer (118K employee/1099 - $88.77 per hour)

General Requirements:
-SIGINT Domain and Software Architecture experience.
-NSA Domain experience.
-Ability to work across T14 projects to define common system requirements and OWF needs.
-Ability to evaluate T14 mission management information to identify common data elements to be use in OWF messaging.
-Experience with Agile system development, requirements (stories/defects), and frequent product releases.

Specific Requirements:
7 years total in a technical role in projects and programs for Government or Industry customers with:
3 yrs. as a System Engineer in programs that encompass system architecture, requirement analysis, process execution & evaluation
Experience in applying strategic & implementation plans for large-scale information systems, systems architecture and design, systems definition, trade-off and design activities, analysis of system requirements and components, preparing, reviewing and evaluation of interface documentation, specifications, test plans and procedures, System performance analysis, planning the next generation system, T14 Systems Supported

Sr. Computer Scientist ($136K employee/$105 per hour 1099)

Job Description:
This position will directly support specific Ozone Widget Framework (OWF) customization tasks.
-Experience with OWF is a huge plus.
-Experience with TOMCAT web development and application deployment, including Javascript.
-Experience with PKI authentication, especially with CASPORT data integration.
-Experience with complete lifecycle software development (define, code, integrate, deploy, sustain).

General Requirements:
Experience with various programming languages, including object oriented, database manipulation (extraction, insertion, interfacing)
Minimum of three (3) years of programming experience in Java and/or object oriented software development
Minimum of ten (10) years of experience in high level language software programming
T14 Systems Supported

Entry-Mid Level Systems Engineer:

Bachelor degree in computer science, engineering or communication.
Understanding of voice and video over IP as well as Audio Visual.
40 hours per week pay (negotiable).
Secret clearance is desirable.
Job includes the installation and training of Cisco, Polycom, Smart board, Crest on equipment.
At least ONE certification showing an understanding the above systems.
Person will be working at the Pentagon and the National Institute of Health Bethesda MD

Other open positions are:
CNO Analyst/Programmer, Senior Software Developer, Software Developer (User Interface Developer), Senior Software Developer, Configuration Control Manager, CNO Reverse Engineer, Senior CNO Analyst/Programmer, and System Administrator. **For more information about these positions, please contact Blair Alexander at** BAlexander@UniverCityStaffing.com

IEEE Long Island Section Entrepreneurs Network

Robert Muratore, an IEEE Long Island Section member and a member of our Entrepreneurs Network, has conceived a very interesting proposal. Robert has presented his proposal at a few venues. If you can help, please do. If interested in our Entrepreneurs Network, contact us at enet@ieee.li

Regional Open Access Laboratory:
A pre-burner to fire up technology and business incubators

By Robert Muratore, Ph.D. - Feb. 6, 2012

The problem - Many high technology workers and inventors are unable to obtain adequate support from their institutions or are no longer associated with institutions. The economic slowdown has caused a decrease in research opportunities for trained scientists.

- Start-up funding available to new university faculty members has been frozen.
- There is an increased demand (apparently a "feeding frenzy") for research grants and grant money is less plentiful now than in past decades. Grant money flows preferentially towards large institutions; many of the so-called small business initiation research (SBIR) grants go to "small business units" within Fortune 500 corporations.
- From the perspective of an individual scientist, the chance of obtaining research funding is too slight and getting slimmer.
- Industry is redirecting resources toward extremely short-term goals as businesses struggle for solvency.

With the advanced state of technology, basement tinkering does not produce adequate results; a substantial infrastructure of equipment is required. Therefore, the displaced scientists find themselves unable to continue research and development work. Without research opportunities, many scientists are finding it difficult to pursue their ideas and to maintain the level of their expertise. A stalled scientific career is difficult to restart, and thus the United States is facing a potentially major loss of its brain trust. Every economic expansion has been directly tied to new discoveries; the marginalization of American scientists might be the direst long-term consequence of the recession.

A solution - A facility to serve the needs of "displaced" scientists. A regional open access laboratory (ROAL, pronounced "role") will act as a library. Instead of information, ROAL will provide bench space and basic laboratory equipment and supplies. Allocation will be non-competitive, once minimum requirements have been met (e.g., advanced degree in science, or some small number of peer-reviewed publications), hence the laboratory will be open access. (Attempts to score and rank research proposals will make ROAL just another typical funding mechanism and disable ROAL from serving its clientele.) No funds will be provided to visiting scientists; without travel funds, each ROAL will serve a local region.

ROAL will be disinterested in intellectual property developed therein. Live vertebrate experiments will be disallowed to reduce the need for trained staff veterinarians, although vertebrate tissue samples will be permitted to be brought in and stored. Specialized equipment would be beyond the scope of the laboratory; experimenters will be required to bring their own exotic, special needs, equipment. Examples of provided equipment include: signal generation and signal monitoring equipment, such as waveform generators, amplifiers, and oscilloscopes, computer interfaces, such as digital to analog converters and analog to digital converters (digitizers), culture ovens, isolation hoods, autoclaves, high powered microscopes, such as electron, phase-contrast, and fluorescence microscopes, DNA tools, such as polymerase chain reaction (PCR) thermal cyclers, optical tools, such as lasers and optical tables, shake tables, water baths, and precision balances, small scale machining equipment, and storage facilities, such as freezers and chemical cabinets.

Equipment could be obtained from local and US-based manufacturers or international manufacturers with local investments when possible on a donation or loan basis. For example, Nikon has North American headquarters on Long Island and manufactures high end optical microscopes.

Bench time will be provided in blocks. Allocation schemes to be explored include first-come-first-served, auction of points provided to qualifying scientists (perhaps collaborating scientists can pool their points), and other schemes not tied to proposal review. For example, time in the laboratory would be allotted to any interested people on the following basis: demonstration of competence (academic credentials, Professional Engineer, or simple tests), time share - first come first served signup for a bench slot, X hours weekly for Y months, short-term loans of the portable equipment to coincide with bench time, certain equipment, such as the microscopes, would be available on a short time basis.

Capital funding will be needed to provide a facility suitable for several concurrent scientists. Staffing could be provided on a volunteer basis, requesting retired scientists, established researchers, and engineers to volunteer some time, maybe a couple of hours each month. Sources of funding include NSF, general-purpose private foundations, and local organizations. Operating expenses could be covered in part with a membership model, or a monthly access fee.

It would not be desirable to provide the services on a competitive basis, as that would be just another drop in the elusive ocean of grant money. The Regional Open Access Laboratory would function as a lending library of basic technological equipment (although the equipment would remain onsite). The Regional Open Access Laboratory would keep researchers productive during the economic ebb. The results of pilot studies carried out therein would be valuable in obtaining venture capital funds, allowing the researchers to move into the technology and business incubation processes.

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The National Council of Examiners for Engineering and Surveying is seeking volunteers who are licensed professional engineers or engineer interns to participate in an important standard-setting study for the Fundamentals of Engineering (FE) exam. To qualify, volunteers must have taken and passed the NCEES FE exam. NCEES especially encourages recent engineer interns and recently licensed professional engineers to volunteer.

Selected volunteers will review and rate the difficulty of items to be included on the updated FE exam, which will be administered as a computer-based exam beginning in 2014. The volunteers' responses will help NCEES determine the passing score for the FE exam.

The standard-setting study will take place September 14-15, 2012, in Atlanta, Georgia. Travel and lodging expenses will be paid by NCEES.

To volunteer, simply complete a short online questionnaire that can be found at http://www.ncees.org/About_NCEES/News/News_Pages/FE_standard_setting_study.php and return it to NCEES by June 15, 2012.

For more information, contact:
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