

The



IEEE Newsletter

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

North Jersey SMC Society:

Enhancing Micro-Controller Embedded Design

On Wednesday, November 20th, the NJ Systems, Man and Cybernetics (SMC) Chapter will be hosting a fourth, advanced seminar on microchip controllers. John Magrane, Principal FAE and East Region Group Leader of Microchip Technology, Inc., will present "Enhancing Micro-Controller Embedded Design."

About the Speaker

John Magrane is a Sr. FAE, Group Leader for Microchip Technology Inc. He graduated from Rensselaer Polytechnic Institute with a BS in Physics and minors in Electrical Engineering and Management. John has hardware and software design experience with Raytheon and LORAL. He has 7 years experience as an FAE supporting Microcontrol based designs. The last 2 ½ John has been with Microchip Technology Inc.

All Welcome!

All are welcome and refreshments will be served.

Due to the enthusiastic response to the previous lectures, attendees are requested to RSVP at least one week prior to the presentation.

Time: 7:00 PM (check webpage to confirm), Wednesday, November 20, 2002.

Place: Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ (same place as previous lectures).

Contact/RSVP: Dr. Mike Liechenstein, Chairman SMC (ITSMIKESJU@AOL.COM, (973) 471-0721/Message. Also look in November Electronic Newsletter for any possible change in date or venue.

NJ MTT/AP Chapter:

Setting up a Microwave SETI Station

The IEEE NJ Section MTT/S/AP-S Chapter along with NJIT will host a talk November 14, 2002 on "Setting up a Microwave SETI Station." The speaker will be Melvin Lewis.

About the Talk

This talk describes the technical and pedagogical objectives and approach used in setting up a multi-student, multi-year, multi-discipline SETI (Search for ExtraTerrestrial Intelligence) project. FDU-SETI has at its center, a 5 meter diameter parabolic dish, with the students designing, building and testing nearly everything else needed. The graded project is, in effect, a practical application of four years of theory and labs in the student's field of study. There were diverse assignments for senior electrical engineering, and mechanical, electrical, construction, and civil engineering technology students at FDU's Teaneck NJ campus. The talk will cover the technical design of the station and describe in detail some of the microwave, electronics and programming work done by the students. FDU-SETI was an excellent environment for learning about teamwork and advance planning, technical writing and product testing, not to mention design / parts procurement / fabrication and technical presentation skills.

About the Speaker

Mr. Lewis is a full-time lecturer at Fairleigh Dickinson University in the School of Engineering and Engineering Technology, Teaneck. His background includes 37 years of electronics

engineering experience designing circuits and systems in the defense industry (mostly at BAE Systems, formerly known as Lockheed Martin and before that, Loral). Much of that work has been on receivers and complex instrumentation. He holds one patent (on frequency memory), and has published two articles on the search for gravitational waves. He has also published several technical articles on other electronics topics. He has a BSEE degree from FDU (1961) and an MS degree in electrical engineering from Columbia University (1963), with emphasis on antennas, and fields-and-waves. He is a senior member of the IEEE, a member of the American Physical Society (APS, notably the Topical Group on Gravitation), the LIGO Research Community (LRC), the AAAS, the SETI League, and the AOC. His activities with the IEEE include member of the Antennas and Propagation Society, and conference general chair ('93) and worldwide conference coordinator since then - for the IEEE Vehicular Technology Society.

All Welcome!

You do not have to be an IEEE member to attend.

Time: 7:00 PM, Thursday, November 14, 2002. Free dinner will be available at 6:00 PM.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at www.njit.edu.

Reservations & Information: Kirit Dixit, (201) 400-2313 (RF Electronics), Willie Schmidt (973) 492-0371 or Edip Niver (973) 596-3542 (NJIT).

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IEEE NJ SECTION HOME PAGE

<http://www-ec.njit.edu/~ieeenj/>

IEEE NJ SECTION NEWSLETTER HOME PAGE

<http://www-ec.njit.edu/~ieeenj/NEWSLETTER.html>

REPORT ADDRESS CHANGES TO:

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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 Wayne Owens at (201) 767-3400, ext. 226, wowens@crestron.com.

NJ Communications Society:

Semantic Information Processing of Spoken Language - How May I Help You? (sm)

On November 6, 2002, the IEEE North Jersey Section Communications Society Chapter along with NJIT will host a presentation on "Semantic Information Processing of Spoken Language." The speaker will be Dr. Allen Gorin.

About the Talk

The next generation of voice-based user interface technology will enable easy-to-use automation of new and existing communication services, achieving a more natural human-machine interaction. By natural, we mean that the machine understands what people actually say, in contrast to what a system designer expects them to say. This approach is in contrast with menu-driven or strongly-prompted systems, where many users are unable or unwilling to navigate such highly structured interactions. AT&T's 'How May I Help You?' (HMIHY)(sm) technology shifts the burden from human to machine wherein the system adapts to peoples' language, as contrasted with forcing users to learn the machine's jargon. We have developed algorithms which learn to extract meaning from fluent speech via automatic acquisition and exploitation of salient words, phrases and grammar fragments from a corpus. In this talk Dr. Gorin will describe the speech, language and dialog technology underlying HMIHY, plus experimental evaluation on live customer traffic from AT&T's national deployment for customer care.

About the Speaker

Allen Gorin is a Technology Leader in AT&T Laboratories, with long-term research interests focusing on machine learning methods for spoken language understanding. In recent years, he has led a research team in applying speech, language and dialog technology to AT&T's "How May I Help You?" (HMIHY) (sm) service, which has been deployed nationally for long distance customer care. He was awarded the 2002 AT&T Science and Technology Medal for his research contributions to spoken language understanding for HMIHY.

He received BS and MA degrees in Mathematics from SUNY at Stony Brook, and a PhD in Mathematics from the CUNY Graduate Center in 1980. From 1980-83 he worked at Lockheed investigating algorithms for target recognition from time-varying imagery. In 1983 he joined AT&T Bell Labs where he was the Principal Investigator for AT&T's

ASPEN project within the DARPA Strategic Computing Program, investigating parallel architectures and algorithms for pattern recognition. In 1987, he was appointed a Distinguished Member of the Technical Staff. In 1988, he joined the Speech Research Department at Bell Labs. He has served as a guest editor for the IEEE Transactions on Speech and Audio, and was a visiting researcher at the ATR Interpreting Telecommunications Research Laboratory in Japan. He is a member of the Acoustical Society of America, Association for Computational Linguistics and an IEEE Senior Member.

All Welcome!

You do not have to be a member of the IEEE to attend. Bring your friends.

Time: 11:30 AM (refreshments start at 11:15 AM), Wednesday, November 6, 2002.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at www.njit.edu.

Information: Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari@njit.edu), Amit Patel (a.j.patel@ieee.org), or check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

North Jersey Student Activities Committee and GOLD Seek Volunteers and Speakers

The NNJ IEEE SAC and GOLD are seeking new volunteers to help conduct business at the section level for the benefit of students in the North Jersey section and surrounding areas. Additionally local student chapters are seeking speakers to give talks on professional and technical topics.

If you would like to speak on professional topics ranging from career development, time or project management, engineering experiences, and many more, or have specific technical topics and developments you would like to contribute, or even have some pet topics of your own, please contact the organizer below.

Additionally, the NNJ SAC is seeking volunteers to get involved at the section level to help organize local events for students and the GOLD membership in the NY-NJ Metro area. If you would like to help out even for short periods of time or maybe take on leading a committee in the section, please contact the organizer Amit Patel (a.j.patel@ieee.org) to find out more and come to a section business meeting.

IEEE North Jersey Section Activities

November 2002

Nov. 5—"Inventory Control and Management in Semiconductor Manufacturing" – NJ Control Systems Society, 5:00 PM, NJIT, 202 ECE Center, Newark, NJ. Professor Timothy Chang (973) 596-3519 (changtn@njit.edu).

Nov. 6—"Semantic Information Processing of Spoken Language - How May I Help You? (sm)" - NJ Communications Chapter, 11:30 AM, NJIT, 202 ECE Center, Newark, NJ. Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari@njit.edu), Amit Patel (a.j.patel@ieee.org). Please check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

Nov. 6—"Introduction to Context Aware Computing" – NJ Computer Chapter, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ. Howard Leach (973) 540-1283 (h.leach@ieee.org).

Nov. 6—"Career Management Workshop" – NJ Coast Section and Monmouth University, 5:15-9:00 PM, Wilson Auditorium, Monmouth University, NJ. See <http://ewh.ieee.org/r1/njcoast> for registration and workshop details.

Nov. 13—"Unemployed Engineers" – NJ PACE, 6:30 – 8:30 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Richard F. Tax, (201) 664-6954 (rtax@bellatlantic.net), Paul Ward (973) 790-1625 (PWARD1130@aol.com), Mike Rinaldi (973) 515-8195 (MikeRinald@aol.com)..

Nov. 14—"Setting up a Microwave SETI Station" - MTT/S/AP-S Chapter, 7:00 PM, NJIT, 202 ECE Center, Newark, NJ. Kirit Dixit (201) 400-2313, Willie Schimdt (973) 492-0371 or Dr. Edip Niver (973) 596-3542 (NJIT).

Nov. 20—"Enhancing Micro-Controller Embedded Design" – NJ SMC Society, 7:00 PM (check webpage to confirm), Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ. Dr. Mike Liechenstein (973) 471-0721 (m.liechenstein@ieee.org).

Nov. 22—"Protective System Relaying Seminar" – NJ IAS/PES Chapters, 9:00AM - 3:00PM, Jersey Central Power and Light Headquarters Building, 300 Madison Ave, Morristown, NJ. R. Vittal Rebbapragada (609) 720-3209 or via e-mail at r.rebbapragada@ieee.org.

Upcoming Meetings

Dec. 5—"10th Anniversary Celebration & Annual Workshop" – NJ Consultants' Network, 6:00 PM, KDI Triangle, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

Jan. 29-Apr. 2—"JAVA Programming" – North Jersey Section, Wednesday Evenings, 10 sessions, 6:30-9:00 PM, Ramada Inn Clifton, 265 Route 3 East, Clifton, NJ. Bhanu Chivakula (b.chivakula@computer.org).

Feb. 5—"NJ Section Executive Committee Meeting" – 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Wayne Owens at (201) 767-3400 ext. 226 or wowens@crestron.com.

Mar. 12—"IEEE Sarnoff Symposium 2002 - Advances in Wired and Wireless Communications" – Time TBA, The College of New Jersey, Ewing, NJ. Dr. Gerhard Franz (609) 936-1919 (g.franz@ieee.org).

Mar. 15—2004 IEEE Fellow Nominations Due.

Members and Non-Members Welcome
PLEASE POST

NJ Section PACE:

Unemployed Engineers

On Wednesday, November 13, the North Jersey Section Professional Activities Committee will meet to discuss the unemployment situation for engineers and members of the engineering community.

About the Meeting

This meeting provides an opportunity to meet and discuss the unemployment situation. High on the IEEE-USA list of subjects is unemployment and the displacement of American citizens by foreign workers imported under the H-1B legislation. This year the legislation increased the number of H-1B workers to about 200,000 while citizens have been discarded and replaced by foreign workers. And, please do not confuse this as an "immigration" issue. This is all about money and wage busting.

We need input and views from the unemployed on this important issue. We will also like you to confirm your attendance via e-mail or telephone. When we reach a suitable attendance we will be able to invite the press to give visibility to the employment situation here in New Jersey.

Our PACE meeting is open to discuss professional needs. PACE provides the opportunity to meet, address, discuss and perhaps improve the professional aspects of the engineering profession. We should take advantage of the opportunity to have a place and time to meet. Invite your associates to join us.

According to PACE Leaders "Employment Assistance and Career Development are high on their list of priorities. More on these projects can be found at www.ieeeusa.org

Registration is not required, but a numbers count will be helpful.

All Welcome!

You do not have to be a member of the IEEE to attend. Members of other professional societies and engineering disciplines are always welcome.

Time: 6:30 to 8:30 PM, Wednesday, November 13, 2002.

Place: Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ 07011 772-5500

Information/Registration: Richard F. Tax, (201) 664-6954 (rtax@bellatlantic.net), Paul Ward (973) 790-1625 (PWard1130@aol.com), Mike Rinaldi (973) 515-8195 (MikeRinaldi@aol.com).

Older Engineers Face Longer Unemployment, IEEE-USA Survey Shows

WASHINGTON (27 September 2002) - Older electrical and electronics engineers are out of work longer than their younger peers and cite age as a barrier to re-employment, the 2002 IEEE-USA Unemployment Survey reveals.

For each additional year of age, unemployment duration increases 1.3 weeks. But using three variations of multiple regression estimates and seven control variables, the impact of age was more dramatic. In this case, for each additional year, joblessness rises by three weeks.

Additionally, those reporting age as a barrier to reentering the workforce face longer lengths of unemployment (55 weeks) than those who do not (30 weeks).

Dr. Laura Langbein, a professor of public affairs at The American University in Washington, D.C., analyzed and reported the results. The entire report is available at

<http://www.ieeeusa.org/careers/survey/2002results.pdf>

"Overall, age appears to have a persistent effect on the duration of unemployment," Langbein wrote, "but it cannot be determined from these surveys whether that is attributable to productive differences, price differences, the supply of engineers, age discrimination, or some other factor."

The survey, which IEEE-USA has conducted four times, the last in 1998, was mailed to the 2,955 U.S. IEEE members who reported being unemployed at some time during the 2001-02 membership year. The responses totaled 758 responses, or 26 percent.

The survey also revealed that each additional year of experience helps to reduce unemployment by two weeks. For example, when comparing two engineers of the same age (say 55), one with 30 years experience vs. one with 25, the engineer with more experience has 10 fewer weeks of joblessness. When comparing two engineers, one 55 and one 60, both with 30 years experience, the older engineer can expect to endure 15 more weeks of unemployment than his younger peer. Both examples assume that the engineers are comparable in all other respects, including education.

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers created in 1973 to promote the careers and public-policy interests of the more than 235,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society. For more information, go to <http://www.ieeeusa.org>.

Action Alert: IEEE-USA Calls On U.S. IEEE Members To Engage Lawmakers On Unemployment

In response to rising engineering unemployment, IEEE-USA is calling on U.S. IEEE members to write their U.S. Representatives and Senators in order to educate them on how unemployment affects engineers, and to urge lawmakers to take action.

Go to the Legislative Action Center and make your voice heard at

<http://capwiz.com/ieeeusa/issues/alert/?alertid=435666&type=CO>

IEEE-USA President's Column: Helping the Unemployed Member

LeEarl A. Bryant outlines various IEEE-USA initiatives aimed at lowering engineering unemployment, including a one-stop website for addressing all of the organization's employment resources.

Read the IEEE-USA President's Column at

<http://www.ieeeusa.org/newspubs/presidentcolumn/bryantsep02.html>

Go to the one-stop website for employment at

<http://www.ieeeusa.org/careers/help/>

NJ Computer Chapter:

Introduction to Context Aware Computing

On Wednesday, November 6, 2002, the IEEE North Jersey Section Computer Chapter will host a presentation on "Introduction to Context Aware Computing" by Eli Rohn.

About the Talk

Context Aware Computing is about to enter the mainstream of computer based gadgets and with no doubt will become part of mainstream computing. Certain future applications will be expected to perform tasks related to context.

The presentation covers the following:

- Introduction to Context Aware Computing
- Early examples (with side bars for clarification)
- Taxonomy and classification of Context Aware Computing
- General, legal, and ethical issues with Context Aware Computing
- Examples of ongoing Context Awareness related research
- Exploring theoretical limits
- Conclusion

About the Speaker

Mr. Rohn is the Managing Member of Rohn Consulting LLC, an outstanding IT consulting firm. He has published two technical books and over 30 professional articles. Mr. Rohn, who started as a programmer, has over 18 years of experience with Information Technology, ranging from mainframes to wireless computing. In addition, Mr. Rohn is an adjunct professor at the New Jersey Institute of Technology, College of Computer Science.

All Welcome!

You do not have to be a member of the IEEE to attend. Bring your friends.

Time: 7:00 PM, Wednesday, November 6, 2002. Pre-meeting dinner at 5:30 PM, at the Hanover Marriott, Hanover, NJ, (973) 538-8811.

Place: Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930.

Information: Howard Leach (973) 540-1283 or h.leach@ieee.org.

NJ Consultants' Network:

10th Anniversary Celebration & Annual Workshop

On Thursday evening, December 5th, the IEEE Consultants' Network of Northern NJ will sponsor its 10th Anniversary Celebration.

About the Celebration

The December meeting is our official IEEE-CNNNJ 10th anniversary celebration. This special meeting will be a catered event at MCE-KDI Corp. (i.e. no pre-Meeting dinner at the Marriot). Some of the activities planned are:

- Presentation of Sponsor plaque to MCE-KDI Corp., our meeting site sponsors. Carl Schraufnagl, VP-Sales & Marketing, Larry Silverman, VP-Engineering & CTO, and Mike Snyder, President & CEO, will be on hand to accept the award.
- Long time IEEE-CNNNJ members will be acknowledged -- 10-year (Founding Members) and 5+ year members will be honored.

Founding Members: Jim Boyd, Edward R. Byrne, Ralph A. Giffone, Dirk A. Plummer, PE, Alex Richardson, PE, Merrill Rutman, Robert Walker, PE

5-year+ Members: Eric Holme, Ira J. Pitel Peter K. Schutz, PE Pat Banker Warren Umholtz

- Fun event --- we will be collecting engineering-related cartoons we have all seen and enjoyed over the years and will present them as a background slide show during a casual networking session among members and guests. Anyone wishing to submit cartoons (in .jpg format if possible) for this session should send them to j.boyd@ieee.org or by mail to: Jim Boyd, XL Research Inc., PO Box 256, Ironia, NJ 07845.

After the Festivities

Following the Anniversary Celebration, there will be a brief working session for IEEE-CNNNJ members and potential members. This Working Session is traditionally an open forum to determine what the IEEE-CNNNJ is doing right or wrong. The floor will be open to suggestions for improvements to the CNNNJ in general, its website or new feature topics for the general meetings.

All Welcome!

You do not have to be a member of the IEEE or of the Consultants' Network to attend. Admission is free. Food and refreshments will be served.

Time: 6:00 PM, Thursday, December 5, 2002.

Place: KDI Triangle, 60 S. Jefferson Rd, Whippany, NJ.

Information: For directions and up-to-date meeting status, call Robert Walker (973) 728-0344 or visit our website at www.TechnologyOnTap.org. To download a map to KDI, go to: <http://www.kditriangle.com/directions.htm>.

Coming in 2003: The IEEE Member Digital Library

Coming in 2003, the new IEEE Member Digital Library will allow IEEE members to access individual online articles from IEEE-published journals, magazines and conference proceedings with one convenient subscription. Subscribers will pay a monthly fee to access up to 25 articles and papers a month from the current year and the last five years worth of publications. Access will be through the IEEE Xplore ® online delivery platform.

"This new offering will greatly enhance the scientific and education goals of the IEEE," said Dr. Raymond D. Findlay, IEEE President. "In addition, IEEE publishes the most highly cited information in EE and Computer Science, and online access to a wider range of information will greatly enhance our members' careers."

The IEEE Member Digital Library provides IEEE members with direct online access to the articles and papers in IEEE journals and conference proceedings without requiring subscriptions to the individual publications.

"IEEE members tell us that the number one reason they join is to gain access to technical data," said Findlay. "The IEEE Member Digital Library will prove to be a marked addition to the information IEEE members already gain from individual journal subscriptions and technical society memberships."

IEEE members renewing or joining for the 2003 year will be eligible to subscribe to the IEEE Member Digital Library. Anyone subscribing by 31 December 2002 will receive their first month of the IEEE Member Digital Library for free. The service will be available in January 2003.

For more information on the IEEE Member Digital Library or the first-month free offer, visit www.ieee.org/ieeemdl.

NJ Control Systems Society:
**Inventory Control and
Management in
Semiconductor
Manufacturing**

At the November 5, 2002 meeting of the NJ Section IEEE Control Systems Society, the talk will be on "Inventory Control and Management in Semiconductor Manufacturing." The speaker will be Dr. Kaan Katircioglu.

About the Talk

Semiconductor manufacturing typically involves a periodic review inventory management problem with multiple echelons and multiple products with random demands. We develop a high level multi-echelon model where the manufacturing consists of wafer fabrication, wafer test, substrate manufacturing, and module assembly stages. Each stage has a random yield and random cycle time. At the end of each stage safety stock inventory is held to ensure raw material availability to the next stage. After the assembly process, packaged modules are tested and speed-sorted. The speed sort results in multiple grade products. Downgrading higher-grade products is allowed to satisfy the unmet demand for lower-grade products. The objective is to minimize inventory costs within some customer service constraints. First, we introduce the notion of a critical part in a multiple grade product context and propose a simple method for determining the build quantity based on the critical part. We demonstrate the effectiveness of this methodology with numerical results. Then, we show a heuristic to calculate near-optimal inventory policies at the end of each stage.

About The Speaker

Dr. Katircioglu is one of the leading researchers in supply chain management at IBM Corporation. He has more than ten years of experience in the field of Operations Research, Management Science and Logistics. His expertise covers the areas of inventory control theory, distribution and manufacturing operations management and planning, e-business and supply chain management. He has a bachelor's degree in Industrial Engineering and a Master's degree in Statistics. He completed his PhD in Management Science / Transportation / Logistics at the University of British Columbia in 1996. While pursuing his doctoral studies, he worked at UBC as a research assistant from 1991 to 1996. His research focused on developing new solutions and algorithms for inventory problems. In 2001, he was selected to be

a committee member on Semiconductor Factory Automation (SFA) within IEEE Robotics and Automation Society. His awards include a patent award for the patent entitled "A Method for Estimating Future Replacement and Inventory Levels in Physical Distribution Networks", a Research Division Award for his contributions to Microelectronics Division Strategic Planning, and an Honorable Mention Award, at the INFORMS Student Paper Competition for his paper entitled "A new Optimal Policy for a Unit Demand Inventory Problem", in 1997.

Time: 5:00 PM, Tuesday, November 5, 2002.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at <http://www.njit.edu/University/Directions.html>.

Information: Professor Timothy Chang (973) 596-3519 or changtn@njit.edu.

**2004 IEEE Fellow
Nominations**

Deadline: 15 March 2003

Recognizing the achievements of its members is an important part of the mission of the IEEE. The IEEE grade of Fellow is conferred upon a person of "outstanding and extraordinary qualifications and experience in IEEE designated fields, and who has made important individual contributions to one or more of these fields." The total number of Fellows selected each year does not exceed 0.1% of the total IEEE membership.

Any person, including nonmembers, is eligible to serve as a nominator with the following exceptions: members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chairs, members of IEEE Technical Society/Council Evaluating Committees reviewing the nomination, or IEEE staff. The deadline for nominations is 15 March 2003.

The candidate must be an IEEE Senior Member at the time the nomination is submitted, and he/she must have completed 5 years of service in any grade of IEEE membership.

All the necessary material to assist you in the nomination process is available on the IEEE Web site: <http://www.ieee.org/about/awards/fellows/fellows.htm>. If you prefer a hard copy, please send an e-mail to fellow-kit@ieee.org. Include your name, street address, city, state/province, postal code, country, and telephone/fax numbers.

**Canadian company,
Omniz Global
Knowledge
Corporation, has joined
the IEEE Education
Partners Program**

Available at a 10% discount to IEEE members are six technical courses, referred to as multimedia books, which are presented in a combination of CDROM and print. All six courses were developed by IEEE members Drs Michel Nakhla and Ram Achar, who are faculty in Electrical Engineering at Carleton University.

The current course list centers on signal integrity, with difficulty levels ranging from introductory to highly technical. The multimedia books cover such topics as macromodeling, principles of SPICE based simulation, transient analysis, and Krylov-Subspace Techniques. Each comes with exams to measure learning. The exams are graded and solutions are provided. The CD ROM format allows students to proceed at their own pace.

IEEE Fellow, Professor Nakhla, is one of the leading researchers in the world in the area of high-speed interconnect analysis. IEEE member Dr. Achar has received awards on his work on high-speed circuit and interconnect analysis, including the highly regarded Natural Science & Engineering Research Council doctoral award. They have both been published widely.

To receive the member discount and to read the course syllabi, go to www.ieee.org/EduPartners, look under corporate partners. For further information on this program, contact Sasha Eydlin, s.eydlin@ieee.org.

Lynn Murison
Outreach Coordinator, IEEE Educational Activities
www.ieee.org/organizations/eab/

Drexel University joins IEEE Education Partners Program

Drexel University, Philadelphia's technological university, has become the newest IEEE Education Partner. IEEE members can now continue their life long learning with selected graduate-level, credit courses provided online by Drexel at a 10% discount. Current online programs offered to IEEE members through Drexel e-Learning, the university's online subsidiary, include Masters of Science in Information Science/Systems and Management and Certificate Programs. Tom Samph, President of Drexel e-Learning said: "This unique collaboration with IEEE reflects our joint commitment to offering educational opportunities to engineering professionals; providing them the skills and knowledge needed to advance in today's technology-driven environment."

In 2000 Drexel became the first major US university to operate a fully wireless CyberCampus. The e-Learning program draws on the Drexel's 110-year tradition in preparing engineers for successful careers. With 11 colleges and schools, 175 degree programs and approximately 16,000 students, Drexel is one of America's leading private, non-profit academic and research institutions.

Applications, course prerequisites, and systems requirements are detailed at the Drexel-supplied website for IEEE members. You must use your IEEE member number to receive the 10% discount.

Enter through the IEEE Educational Partners, <http://www.ieee.org/EduPartners>, and choose Drexel from the university partners. To learn more about the IEEE Education Partners Program contact Sasha Eydlin, IEEE Educational Activities, s.eydlin@ieee.org.

Lynn Murison
Outreach Coordinator, IEEE
Educational Activities
(732) 562-6526
www.ieee.org/organizations/eab/

Conference Rooms Needed!

The North Jersey Section (Education Committee) is looking for conference room facilities to hold their training seminars. The seminars are being held on one weeknight from 6:30 PM to 9:00 PM. In lieu of providing the conference facility for free, the organization can get free registration up to three members in the course/seminar. Please contact Bhanu Chivakula, Co-chair, Education Committee at b.chivakula@computer.org for suggestions or discussions, if interested.

Member-Get-A-Member Program

The IEEE is conducting a Member-Get-A-Member Program. It will run from September 1, 2002 to August 15, 2003. If you recruit members, you can win a Voucher Prize and possibly free membership for 2004.

MGM New Members Recruited	Voucher Prize	A chance to win 1 year of free IEEE membership for 2004
1-2	\$5	Awarded to 1 recruiter
3-5	\$10	Awarded to 2 recruiters
6-9	\$20	Awarded to 3 recruiters
10 or more		Awarded to ALL recruiters in this category

You can get the 2003 membership application forms from: Don Weinstein, Kulite Semiconductor Products, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900, mornings, FAX (201) 461-0990, email don@kulite.com.

Please include your mailing address and the quantity of application forms.

You must enter your name and your member number in the green Member-Get-A-Member Recruiters box on the application.

It Pays to Advertise in the Newsletter

Over 5000 readers who are influential in the electrical, electronics, and computer industry receive the IEEE Newsletter each month (except July). These readers represent many companies in the North Jersey area. Included are manufacturers, consultants, sales representatives, universities, and colleges. You can reach this targeted professional audience with your advertisement in the Newsletter.

For information about advertising in the IEEE Newsletter, contact the North Jersey Section Business Manager at k.saracinello@ieee.org, or call (908) 791-4067 after business hours (leave message).



IEEE

CALL FOR PAPERS



The College of New Jersey
March 12, 2003



ADVANCES IN WIRED AND WIRELESS COMMUNICATIONS

The 2003 IEEE Sarnoff Symposium on Advances in Wired and Wireless Communications will continue its long tradition of bringing together professionals and industry experts to exchange information on the latest developments in the field. The conference includes an exhibition of components, technologies, systems and services and also features tutorials.

The Symposium is soliciting papers describing state-of-the-art research, innovative developments and applications. The areas of interest include, but are not limited to:

- Broadband Wireless Systems
- Network Security
- Satellite Communications
- Signal Processing for Communications
- Microwave Device Technology
- Modeling and Simulation
- Optical networking
- Ultrawideband Systems
- VoIP and QoS
- Military Communications
- 3G Mobile Systems and Wireless LANs
- Smart Antennas & Phased Arrays
- Microwave Photonics
- Software Radio

Proposals for tutorials are also encouraged. All accepted papers (after peer review by experts in the field) will be included in the 2003 Sarnoff Symposium Proceedings. Prospective authors should submit a one-page abstract to the Technical Program Chair by September 30, 2002 in .doc or .pdf format.

CONTACTS:

Symposium Chair:

Peter Zalud (pzalud@sarnoff.com)
Sarnoff Corporation

Technical Program Chair:

Gerhard Franz (g.franz@ieee.org)
A.G. Franz Associates, LLC

Technical Program Vice-Chair:

Barry Perlman
US Army CECOM

Publications Chair:

Hank Owen (howen@sarnoff.com)
Sarnoff Corporation

IMPORTANT DATES:

Abstract Due: September 30, 2002
Acceptance Notification: November 30, 2002
Final Version Due: January 24, 2003

Conference Schedule:

Tutorials March 11, 2003
Conference and Exhibit March 12, 2003



IEEE New Jersey Coast Section
&
Monmouth University
Present



Career Management Workshop

*Wednesday November 6, 2002
5:15 – 9 PM
Wilson Auditorium
Monmouth University*

Life Management Skills for Success
By Bala Prasanna – AT&T

**Life outside the cubicle -
Preparing for a successful career**
By Donald Herres, P.E.,

Workshop is FREE, but you MUST register
IEEE members, non-members, engineers, and non-engineers Any
Student can benefit from this!

Pizza, Soda & workshop proceedings are on us – FREE!

Please visit

<http://ewh.ieee.org/r1/njcoast>

for registration & workshop details

*Networking Mentoring Conflict – Resolution ENGLISH As A Second Language Continuous – Learning
Resume-Building What-Is-Your-Brand Leadership Harassment Office Politics DON'T – Sweat-The-
Small-Stuff*

IEEE North Jersey Section Seminar

JAVA PROGRAMMING

*Wednesday Evenings, January 29, 2003 through April 02, 2003, Ten weekly classes
(Jan. 29, Feb. 5, 12, 19, 26, March 5, 12, 19, 26 and April 2) from 6:30 PM to 9:00 PM
Ramada Inn Clifton, 265 Route 3 East, Clifton, NJ 07014
(Checks should not be mailed to this address)*

The North Jersey Section IEEE is offering an evening seminar/course entitled "Java Programming." This course, however, will be for anyone even if he/she has never taken a programming course. The instructor will provide the necessary software (compiler and editor) for everyone to get started immediately from ground zero! More assignments and handouts are planned this time.

Instructor: Dr. Donald Hsu, PhD, has been a corporate manager for 11 years and is an experienced trainer. Since 1997, he has trained 150+ people in Java Programming and Advanced Java Programming courses in five organizations.

TOPICS

Explain the dynamic growth in Java Programming, contrast the importance of AWT, CGI, JavaScript and HTML, classify the different types of Java applets vs Java applications, identify the control structures, arrays and classes, construct character strings and graphics tools, define multithreading, files and streams, draw multimedia, animation and swing images, build audio files, JavaBeans and networking applications, distinguish Java utilities, error handling, serialization and reflection and analyze real-world projects using SDK 1.3 development tools.

Class size will be limited to a maximum of 25. Early registration is recommended. The members are required to pre-register by calling Mr. Bhanu Chivakula on (732) 718-3818. Registration and checks are accepted only after pre-registration.

WHERE: Ramada Inn Clifton, 265 Route 3 East, Clifton, NJ. (Checks should not be mailed to this address)
WHEN: 10 Sessions, Wednesdays on Jan. 29, Feb. 5, 12, 19, 26, March 5, 12, 19, 26 and April 2; Time: 6:30-9:00 PM
COST: With textbook or notes: IEEE (& affiliate) members \$300; Non-IEEE members \$400.
CONTACT: Bhanu Chivakula - email b.chivakula@computer.org.

REGISTRATION: Java Programming

Please send checks with this form to Bhanu Chivakula, 19 Prestwick Way, Edison, NJ 08820. Include the sender's address and mark the envelope "Java Programming."
(Checks payable to "North Jersey Section IEEE" with registration form should be mailed to this address)
Direct inquiries via email to B.Chivakula@computer.org.

Name: / Mr. / Mrs. / Miss / Ms. / _____

Non-member ✉ email address ✉
 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.

Registration status will be mailed after January 10, 2002 In general, the effective date of the application corresponds to the date when BOTH a fully completed application/registration and payment are received.

Tuition receipt will be mailed only if this box is checked Signature: _____

Protective System Relaying Seminar

A One-Day IEEE Seminar

Presented by the North Jersey Section IAS and PES Chapters

November 22, 2002

9:00 AM to 3:00 PM

The PES and IAS Chapters will sponsor a one-day seminar covering the fundamentals and application of protective relaying principles and applications for industrial and utility systems. The seminar leaders are members of the IEEE Power System Relaying Committee and will address relaying topics specific to utility, substation and industrial distribution systems. Topics to be covered in the session include:

- Fundamental Relay Concepts and Definitions
- Relay Types and Basic Operating Principles
- Relay and Fuse Coordination
- Bus and Transformer Protection
- Distribution Feeder Protection
- Transmission Line Protection
- Motor and Generator Protection

LOCATION:	JCP&L Building (former GPU Energy), 300 Madison Avenue, Morristown NJ. Directions: Route 287 to Route 124 Exit in Morristown. Follow signs toward Madison, JCP&L is about 1.5 miles on the left side.
COST:	The registration fee for this seminar prior to November 8th is \$175 (non-IEEE members), \$125 (IEEE Members), and \$50 (students with valid ID). The fee will be waived for IEEE Life Member Grades with verification at the seminar. Registrations after November 8th must include an additional late fee of \$25. The seminar fee includes lunch, refreshments and handouts. Non-members joining IEEE within 30 days of the seminar will be rebated 50% of the IEEE registration charge.
INFORMATION:	R. V. Rebbapragada, Washington Group, International, 510 Carnegie Center, Princeton, NJ 08540, phone 609-720-3209, e-mail r.rebbapragada@ieee.org

Registration: Protective Relaying Seminar, 11/22/2002

Register via US mail to:

K. Oexle
11 Deerfield Rd
Whippany, NJ 07981

Name _____

Address _____

Phone _____ Email _____

IEEE # _____ Student @ _____ Non IEEE ____ Life Member ____

Payment Enclosed \$ _____ Add \$25 late registration fee after November 8th

*Make Check payable to **North Jersey Section IEEE***

2003 Officer Ballot

Instructions for Casting Ballots

Completed ballots should be mailed to the North Jersey Section Newsletter Editor as follows:

Keith Saracinello
IEEE North Jersey Section Newsletter Editor
Agilent Technologies Inc.
1 Cragwood Rd
South Plainfield, NJ 07080

The ballot MUST be filled out completely with members name, membership number, and signature. The ballots are invalid without this information. Xerox copies of the ballot are acceptable as long as they are filled out completely. Ballots received after November 30, 2002, will not be counted.

Chairperson: (choose one)

..... Dr. Durga Misra

..... (write-in) _____

Vice Chairman-1: (choose one)

..... Rodney Cole

..... (write-in) _____

Vice Chairman-2: (choose one)

..... Har Dayal

..... (write-in) _____

Treasurer: (choose one)

..... Dr. Ted Byrne

..... (write-in) _____

Secretary: (choose one)

..... Vittal Rebbapragada

..... (write-in) _____

Members-At-Large: (choose three)

..... Bhanu Chivakula

..... Naz Simonelli

..... Dr. Richard Snyder

..... (write-in) _____

Member Name

Member No.