IEEE region8news

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V/C Strategic Planning Levent Onural talks to R8News....

Current Vision, Mission & Future of IEEE Region 8

By including its vision and mission statements into its Bylaws, IEEE Region 8 has clearly indicated the high importance it devotes to these statements, and the direction they point:

The Vision of Region 8 is to ensure it is an effectively organized, dynamic and influential entity, recognized as a leading and esteemed part of a truly transnational IEEE, with IEEE benefits equally available to all members.

The Mission of Region 8 is to serve the needs of the members of the Institute, the profession and society at large, by enhancing and supporting the IEEE's Organizational Units and its activities within Region 8.

To this end, Region 8:

—Provides a platform for coordination, motivation and interaction among R8 entities.

—Provides a link between the region and other IEEE entities.

—Works to achieve smooth and effective operation in different countries, recognizes cultural differences, and effectively cooperates with national societies and other organizations.

—Expands IEEE presence and activities to new areas in R8.

—Promotes the transnational nature of IEEE within the Region and the Institute.

Dealing With Change

There is no doubt that the world we live in changes faster than ever, and naturally that affects IEEE and its operations. Changing members' needs force us to operate differently. And all of these induce modifications in Region 8 structure and its programs. Therefore, Region 8 works hard to develop concrete plans to reach targets pointed out by the vision and mission statements, and allocates significant resources to that end.

Current high priority strategic issues:

—Strengthening the links between the Region, its Sections and IEEE Technical Societies.

—Improving industrial relations.

UK Honors "European Father of the Internet"

Congratulations to Prof. Dr. Peter Kirstein for his appointment as Commander of the British Empire in Queen Elizabeth's Birthday Honors last year. Besides his CBE, Peter Kirstein was awarded the Postel Service Award for his work on Internetwork Research in 2003. Already this year, he has also become a Distinguished Fellow of the British Computer Society.

Born in Germany in 1933 but raised in England, Peter has been involved in network research since the late 1960s, being responsible, amongst other things, for the first international links in 1973 to the Arpanet, the precursor of the Internet. In the 1980s he promoted transatlantic Internet connectivity in a series of collaborative projects — including responsibility for *.uk*, the first non-US domain name. This work has led to his being given the richly deserved soubriquet, "the European father of the Internet".

Recently, Peter has devoted himself to further activities within Europe. While he is Professor of Communications Systems and Director of Research at University College London, he is also director of the Silk Project, bringing satellite-based Internet access to the National Research Networks of the Southern Caucasus and Central Asia. He participates too in several European IST projects deploying IPv6, grid, conferencing and security technologies.

INSIDE

IEEE

Editor's Ramblings...

This issue is dedicated to the memory of an IEEE senior member and friend, Mick Byford, who edited R8 News for many years. Inside we reprint a sample of his informative and humorous style.

The October 2003 Region 8 meeting is pictured in the charming city of Zagreb, Croatia — well worth a visit. Read past director Levent Onural on Strategic Planning for R8. Chapter News, Student News, Contests, Conferences — a lot to read! Also, there's the winning PhotoQuiz entry on hybrid automobiles. Enter the May quiz to win an IEEE Millennium SWATCH.

Early responses to our reader survey appear inside. Thanks to all who replied. The survey is repeated on page 11 to encourage response from others. Please take a moment to reply. It will also be posted online: *http://www.ieee.org/r8* (click *News*, then *Survey*).

How do we make known the activities of IEEE members in the many countries of Region 8? In what way do we share stories of success, opportunities for learning and advancement, etc., that make up the progress of members in our profession in our region? What would you enjoy reading? We will look for answers over the next few months.

The R8 Newsletter is intended to record events in the lives of our members and our profession. What's happening locally? How do other members enjoy their professional lives? How well does IEEE headquarters staff look after us here in Region 8?

Apart from technical achievements, let's not forget the human part! The humor; our personal stories; our delight in being engineers — all need to be communicated.

If the objective is to reach every member, four times per year with regional information, which is the most reliable way? With so much spam, will members welcome more emails and if so, how would their preferences for content be managed? For members who do not have cheap, fast and reliable Web service, print is the only form of publication that can be guaranteed.

Tell me what you think. Write or email *R8News@ieee.org,* subject: "Fresh Ideas".

Roland Saam, March 31, 2004

Current Vision, Mission and Future of IEEE Region 8

by Levent Onural

—Boosting the visibility and the prestige of the Student Branch Counselors.

As a consequence of ongoing efforts along these directions, we now have a fully operational Industrial Relations (IR) team within the Region, composed of IR representatives from each Section. The team, with the support of our Region Standards Coordinator, has already made progress.

Cooperation

Probably, Region 8 has one of the best records for Society/Region/Section cooperation among other Regions, in line with the strategic plan, with a rich set of jointly organized conferences, distinguished lecturer visits, and Chapter Chairs' Meetings. Society Presidents, and Division Directors regularly visit Region 8 Committee meetings; and Region 8 Directors always make extra efforts to attend Board of Governors meetings of IEEE Societies.

Some other currently important tasks:

—Promoting changes in the IEEE structure to serve members everywhere, better. An issue to consider is "Federal" vs. "Central" IEEE organization.

—Reviewing the legal status of Region 8 Sections in their countries.

—Training section volunteers.

—Improving activities related to standards.

Since we are a highly ethical organization with members with respected social status, IEEE targets full compliance with applicable legal requirements while conducting its organizational, technical, scientific and educational activities. Since IEEE has worldwide operations, this is a highly challenging task.

Though our track record indicates that IEEE is among the best (by the way, I believe it is "*the* best", the complexity of these issues urges us to be very careful. Therefore, IEEE helps and guides its local entities and their leaders to understand, and continuously improve, their legal status in their countries; banking and proper handling of funds in accordance with regulations and policies is an other aspect for which we provide guidelines.

Region 8 has successfully trained large numbers of section volunteers during the past three years by implementing well-funded projects.

Region 8 is the only IEEE Region with a strong program promoting standards related issues: having more involvement of members in the region with standards related activities of IEEE, and using IEEE standards as a vehicle in reaching industry are the two major ongoing tasks.

Region 8 continuously evaluates its ongoing projects, and launches new projects as needed, as a consequence of its strategic planning activities, and associated focus group efforts.

Fair Representation

As a result of strategic efforts started seven or eight years ago, Region 8 actively supported and lobbied for better representation of its members at high-level central IEEE governing bodies. There has been a lot of progress in that direction: now we always have members and chairpersons of many influential top-level central IEEE committees and boards.

These efforts should continue until the composition of the upper echelons reflect the membership demographics *as a whole* fairly; there is no doubt that we have perfectly qualified and well deserving members, whose services would be beneficial to IEEE members anywhere in the world, whon would make excellent candidates for any of the various elected or appointed IEEE positions. We as members can certainly help effect changes at the top of the organisation by carefully casting our votes in various IEEE elections.

Feedback and comments

Your input and comments related to Region 8 Strategic Planning activities would be very welcome. Send them to my email address: *l.onural@ieee.org*.

but I only taught MATH!

Section and Chapter News

IEEE Bahrain Section

Visit to Bahrain Section by IEEE 2004 Vice-President Regional Activities

Mr. Marc Apter, the 2004 Vice-President Regional Activities visited the Kingdom of Bahrain Section on the January 29, 2004. Mr Apter met the officers of the Bahrain Section, where a number of interested matters discussed in the meeting. There were fruitful discussions about section-related matters.

Bahrain Section Members Meeting

A social meeting for Bahrain Section's members took place in the Crowne Plaza Bahrain hotel on Thursday, February 12, 2004. Dr. Isa Qamber, the chair of the section, discussed some important matters about the section and asked members to share the activities of the section. The meeting was followed by a lunch.

Ed. Note: We look forward to a report on the engineering behind the fabulous new Formula 1 Bahrain International Circuit in Sakhir. Meanwhile visit *http://www.bahrain-formula1.com.*

IEEE Benelux Section

Innovation and High Tech Startups.

A Report on the Seminar organized by Engineering Management Chapter EMS and Computer Society Chapter CS Benelux, December 8, 2003, at Delft University of Technology.

On December 8, in cooperation with IEEE Computer Society Benelux, a seminar on the subject of "Innovation and High Tech Startups" was organized. This coincided with the master students' course that had just drawn to a close. Four excellent guest speakers had been arranged, who each from their own perspectives and experiences presented key success factors relating to the subject.

- Paul de Clerq, founder of Medecs Ltd focused his presentation on all the non-technical issues encountered when running a company. A presentation can be found on *http://www.medecs.nl/publications/2001/main.html.*
- Christian Capelle spent much of his working life with Royal Dutch Shell group in finance and marketing. He highlighted the differences in expectations from the angles of the high tech company and the financing company.
- Visiting from Imperial College, UK, Michael Hill King's presentation focused on the external factors affecting technology-based startups. He demonstrated the various thinking out of the box scenarios that had been applied in these cases.
- The closing presentation was by Boudi van Vlijmen, former COO of Satellite Newspapers. He presented his hands-on experiences of success and failure with different companies. Boudi shared his personal views on the key success factors, with key characteristics of an entrepreneur. He underlined the need to build in conscious go/no-go decision points or milestones, and encouraged the audience not be afraid to stop and to restart later.

Active Members

Members are invited to become part of the chapter management. Whereas due to the economic downturn business priorities may have changed, the need to network with your fellow practitioners increases.

All members are cordially invited to submit their suggestions and/or to step forward to become member of the chapter management team and help us organize interesting events for our members.
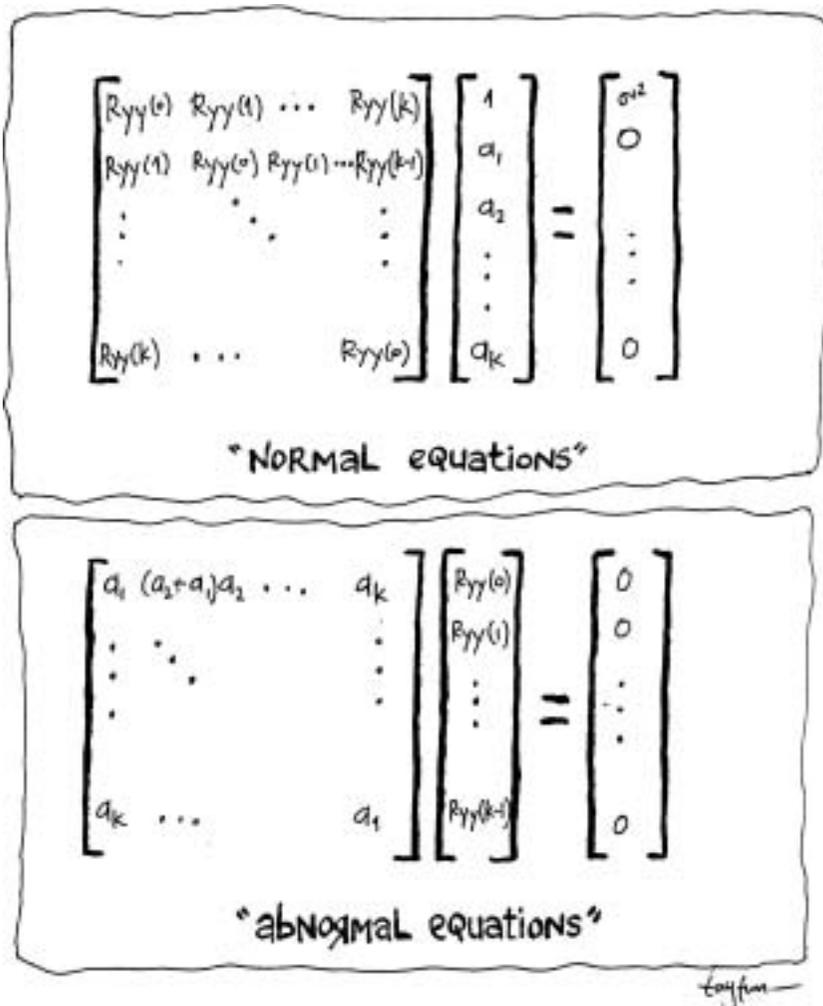
IEEE Nigeria Section

IEEE Nigeria Section 25th Anniversary

Professional Activities of members of the IEEE formally started in Nigeria with the formation of Nigeria Section in 1978. The Section then became active both at the local and international levels.

Several years of economic downturn led to a decrease in membership numbers and less interest from volunteers to run the affairs of this professional group. This resulted in IEEE Nigeria Section becoming inactive for some years. A ray of hope came in the last quarter of 1999.

A well-attended meeting took place at the Nigerian Society of Engineers Auditorium in Lagos on May 27, 2000. Engrs Isaac Adekanye (Chair), Olumuyiwa Taiwo (Vice Chair), Sunday Faturoti (General Secretary), Idris Umar-Lando and Tunde Salihu (Publicity Secretary) were chosen to pilot the affairs of the rejuvenated Nigeria Section. The Section, which then had a total of 126 members of different grades, has since become very active. including a GOLD Affinity group.

Members in Port Harcourt started meetings in February 2000. With the zeal, support and interest shown by our members, membership strength increased to 873 at the end of 2003.

Since the Section was reactivated, some milestones have been reached:

• Nine Student Branches (with more in formation).
• Two Affinity Groups.
• Four Society Chapters.
• Increase in the number of Senior Members.

Administrative and Technical Meetings have been taking place in different places in the country at regular intervals with considerable turnout. The Section presently has a Web site at *http://www.ieeenig.org*.

IEEE Regional Activities Board recognized the giant strides being made with the rejuvenation of the Nigeria Section by naming Nigeria GOLD Group as the winner of RAB Innovations Award for year 2000. The Section has consistently won the RAB Membership Drive and Leadership Award for 2000, 2001 and 2002 in Region 8!

The Women In Engineering (WIE) affinity group organized an "Engineering for Girls" seminar, which was aimed at encouraging girls in secondary schools to pursue careers in electrical, electronics and/or computer engineering. The seminar took place at NSE Auditorium, Victoria Island Lagos on May 17, 2003 with representatives from ten schools in attendance. It enjoyed corporate sponsorship from Danelec Nigeria Limited and coverage by Guardian Newspaper.

Mr Harry Goldstein, Senior Associate Editor of Spectrum was a guest of the Nigeria Section in June 2003. He visited the SAT-3 Fibre-optics cable landfall site at

IEEE Russia North-West Section

First IEEE Fellow

On November 16 last year, the Russia North-West Section obtained the first active Fellow. Being an IEEE member since 1993, Alexander L. Fradkov contributed a lot to the development of Russian science as well as scientific research.

Enumerating his main spheres of interests, the new IEEE Fellow mentioned his high involvement in cybernetics. In December 2003 his new book entitled "Cybernetical Physics" was published, in which he reviews the main problems of this emerging interdisciplinary area. An English edition of the book is the next goal to achieve.

The honored member has a doctoral degree in technical science and works for the Institute for Problems of Mechanical Engineering, Russian Academy of Sciences in Saint Petersburg, Russia. The Head of the Laboratory Control of Complex Systems, Alexander Fradkov participates in various scientific organizations. However, being a member of the Control Systems Society, he takes an active part in the promotion of IEEE's Russia North-West Section. He considers IEEE membership to be a way of integrating the world scientific community.

Formed in February 2003, IEEE Russia North-West Section is rapidly evolving. During the section's existence, four chapters have been formed and two chapters transformed. Several events

IEEE Fellow Alexander Fradkov during a visit to Turkey

have been organized. North-West region is a perspective area to develop scientific activities because of its potential. Many scientists achieve remarkable results in the field of their activity. And the only recommendation from the active Fellow to those, who want to follow his example is to be more courageous in research and organization activities, climbing to Fellow grade.

Report by Olga Antipova,
IEEE Student Member

Section and Chapter News *continued*

IEEE Israel Section
50 Years Old — The First IEEE Section in R8

In May 1954, 27 Members of the Institute of Radio Engineers (IRE) residing in Israel sent a petition to the Secretary of the IRE in New York, requesting the establishment of a new Section, to be designated "The IRE Israel Section." On October 5 that year, the Board of Directors of the IRE approved the formation af the Israel Section, mentioning that it was "the first IRE Section to be established in the Eastern Hemisphere and the establishment of the section was generated spontaneously by persons in that country interested in the IRE field of activity."

The temporary committee elected by the members constituted of Mrs. A. Fuchs, J. Halberstein and Uzia Galil (who became the first Chairman of the Section). They indicated that they would abide by the Constitution for Sections approved by the IRE Board of Directors.

When the IRE merged with the AIEE in 1962 into the IEEE, the IRE Israel Section became the IEEE Israel Section. The Section will celebrate this year its 50th Anniversary and the celebrations will be held on the occasion of the bi-annual Convention of Electrical and Electronic Engineers in Israel, on September 6-7, 2004 in the presence of representatives of Region 8 and the IEEE Board of Directors.

As of December 2003, the IEEE Israel Section, chaired by Prof. Arie Braunstein, has 1,445 active members, with 150 students, and operates 15 Chapters and four Student branches. The Israel Section has among its members 43 IEEE Fellows and its new Life Members Chapter has 77 active Life Members. It works in close co-operation with the Israel Chapter of the IEE and with the Israel Association of Electrical Engineers.

By Jacob Baal-Schem, Region 8 Life Member Chapters Coordinator

Lagos; Owerri Digital Village; FUTO Students Branch; Executive Cyberschull; and other places of interest while here. A presentation on the visit and on activities of the Nigeria Section was made to the IEEE Board in USA.

With concerted efforts from all members, Nigeria Section is moving ahead with hope of contributing to the development of our profession and the professionals.

Engr I. A. Adekanye SMIEEE, MNSE
Chair, Nigeria Section
isaac.adek@ieee.org

IEEE United Arab Emirates Section

The Annual General Meeting (Sponsored by Dubai Aluminium Co.) was held on the 18th of December 2003 at the Towers Rotana Hotel, Dubai. We elected Dr. Eesa M. Bastaki, Chair; Mr. Syed Riayzul Hassan, Vice Chair; Mr. A. G. Hareendralal, Secretary, and Mr. K. S. Taj, Treasurer.

2003 was a busy year in which our activities included five executive meetings plus technical meetings, 17 seminars and two conferences; publication of the EE Vision Newsletter (two issues); the formation of the Women in Engineering Affinity group; and another Student Branch

Following four meetings in 2003, our first business meeting was held on January 7, 2004 at Dubai Silicon Oasis (DSO). Highlights from our technical program included the following subjects:

- Environmental Management – ISO 14001, Dr. Richard John Perry
- Power System Harmonics, Mohamed H. Shwehdi, Ph.D.
- Criteria for Engineering Work Practice, Dr. Eesa M. Bastaki
- Web Based Monitoring and Control of Industrial Plant, Dr. Abdul Rahman Al Ali
- Electrical Safety of Medical Equipment, Dr. Hassan A. Al-Nashash

- Industrial Visit to Thuraya Ground Station, Dr. Mohammed El-Tarhuni
- Evolution of Mathematical Concepts through the Ages, Prof. Ganti Prasada Rao, at the Cultural Foundation, Hall No. 4, Abudhabi
- Control in an Information-Rich World, Dr. Abdulla Ismail Abdulla
- Public Speaking Skills for Engineers, C. G. Ganesh (Head of Plant Instrument Engineering, Dubai)
- Field Oriented or Flux Vector Control of AC Machines, Dr. Habib Ur Rehman
- Digital Watemarking & Information Hiding, Prof. H. Al-Ahmad & Dr. Mohammed Al-Mualla
- Document Managing System, Dr. Ziad Nakkouzi
- Advanced Industrial Process Control:State of the Art and Future Trends, Prof. Maamar Bettayeb

Two major conferences were organized with the cooperation of our section :

- May 13-15, 2003 – The First GCC Industrial Electrical & Electronics Conference, Manama, Bahrain
- December 14-17, 2003 – 10th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003), Sharjah, United Arab Emirates, organized by the University of Sharjah & Etisalat College of Engineering
  http://www.icecs2003.org/

Our chapters and student branches have planned many activities throughout 2004. Why not contact us and participate in our professional activities during the year?

- IEEE Power Electronics PES Chapter
- IEEE Computer Society Chapter
- IEEE Student Branch, UAEU
- IEEE Student Branch, AUS
- IEEE Student Branch, Etisalat College
- IEEE WIE Affinity Group

Eesa M. Bastaki

IEEE UK&RI Section EMBS Meeting
The Art of Perception

On March 17, 2004 an unusual seminar on "The Art of Perception" was initiated by the IEEE Engineering in Medicine & Biology

Chapter and Professor Guang-Zhong Yang and organized by Dr. Robert Merrifield at Imperial College (Royal Society/Wolfson Foundation Medical Image Computing Lab).

This seminar, given by Royal Academician Mr. Frederick Gore RA was attended by some thirty students and faculty. Freddy told his audience how images are realised with the aids of color and line. He explained that lines do not appear in nature, but color does. With slides of his paintings he illustrated the way an artist approaches his subject, noting the different problems caused by indoor lighting compared to subjects outdoors.

Perception is important for the engineer seeking ways to portray data. At the laboratory, techniques are developed that aid doctors to assess medical condition from moving images created from computer data.

In Freddy Gore's words: "The eye sees what the mind is seeking."

Report by Roland Saam

Royal Academician Freddy Gore with his painting, "NY City 42d Street"

IEEE EMC Society, UKRI Chapter meeting at Science Museum, Wroughton

Part of the program for the forthcoming event on Wednesday, June 23, 2004 — at the Science Museum's site at Wroughton near Swindon — will be on EMC History. This theme is in keeping with the venue, which is the storage facility for the Science Museum's collections of large artifacts including airliners, early computers and MRI scanners.

Gerry Jackson and Nigel Carter both retired from ERA. ERA was originally incorporated under the name "The British Electrical and Allied Industries Research Association," but was generally known as "The Electrical Research Association," or "ERA."

Following the present-ations and lunch a guided site tour will be provided.

http://www.ieee.org.uk/emc.html
Contributed by Roy Ediss
roy.ediss@philips.com

CTR Celebrates Its 10th Anniversary

This year sees the Centre for Telecommunications Research (CTR) at King's College, London, celebrating its 10th anniversary. Professor Hamid Aghvami, director of the CTR, has developed the research centre to accommodate some 60 researchers, who are tackling topics relating to mobile, personal and satellite communications. Professor Aghvami also founded the highly successful IEEE Personal Indoor Mobile Communications (PIMC) conference and the IEEE International Conference on Telecommunications.

The centre will be hosting an Open Day on Wednesday May 19, 2004 where posters and demonstrations of the latest research will be exhibited and researchers will be on hand to conduct tours of

the facilities. Refreshments will also be provided.

For an invitation and further information, see *http://www.ctr.kcl.ac.uk/anniversary.html*.

German Chapter
Visit to SEW-EURODRIVE

IEEE Joint IAS/PELS/IES German Chapter was kindly invited by SEW-EURODRIVE to hold a chapter meeting in the company's headquarter at Bruchsal in Germany. The meeting took place on March 4-5, 2004. After a warm welcome by owner and general manager Rainer Blickle, the company held several technical presentations:

• Company overview (Mr. J. Beck)
• New developments in decentralized drives (Dr. H. Krattenmacher)
• Additional losses in three-phase induction motors (Dr. M. Doppelbauer)
• Contact free energy transport for mobile drive systems (Mr. U. Laubenstein)

A well organized tour through electronic and mechanical assembly lines gave the 80 participants an insight into the technology, production and application-specific final assembly of the company's proprietary EURODRIVEs, which are decentralized drives for various applications in industry and transportation. The technical program was complemented by a scientific lecture from Prof. Dr. Budig about direct drives.

SEW generously invited the participants to an additional social program to taste local food and wine from the amiable south-western German region of Baden in a local

wine cellar. A number of discussions between researchers from industry and universities during the evening demonstrated that the subject briefly addressed from the panel — that is, how to develop proven German engineering education in the European context with respect to internationalization — actually attracts considerable attention and interest.

A presentation of structure and research themes from the Nürnberg-based Engineering Center for Power Electronics (ECPE) not only helped build relationships with this newly founded organization, but furthered networking opportunities too. The topic of IEEE business was used as a platform to review the three chapter meetings of 2003, and

Prof. De Doncker (right), senior past chairman, receives the Chapter Award 2004 from Prof. Späth.

Prof. Späth (left) presents the Best Paper Award 2003 to Dr. H. Mitlehner for his presentation "SiC Technology and Device"

awards for out-standing contributions were assigned. More details about these past and the future meetings or the chapter in general can be found at *http://www.ewh.ieee.org/r8/ germany/ias-pels*.

Chapter Coordination

From R8 Chapter Coordinator

With great pleasure I would like to inform you that the Chapter Coordination Subcommittee for 2004 consists of the following members:

- MTT & AP & BT – Jozef Modelski (Chair), *modelski@ieee.org*
- C – Nicolae Tapus, *ntapus@cs.pub.ro*
- CAS & IM & CS – Maciej Ogorzalek, *maciej@agh.edu.pl*
- COM – Adam Livne, *livne@actcom.co.il*
- ED & SSC – Ali Rezazadeh, a.rezazadeh@umist.ac.uk
- EM & PC & SIT – Margaretha Eriksson, *irbiskonsult@swipnet.se*
- IE & NN & E – Okyay Kaynak, *kaynak@boun.edu.tr*
- LEO & CPMT & MAG – Sergei Malyshev, *malyshev@inel.bas-net.by*
- PEL & IA – Gerard Capolino, *gerard.capolino@ieee.org*
- RA & SMC – Imre Rudas, *rudas@zeus.banki.hu*

I am happy that I can continue cooperation with those who were serving our committee last year and I welcome new members on board: Nicolae, Gerard and Okyay, who came back to the CCS.

I encourage all Chapter Chairs to contact their coordinators and inform them about either interesting events or new initiatives or problems. I hope that this year, as usual, we will hold several Chapter Chairs' Meetings. New Chapter Chairs will have the opportunity to practice holding technical meetings. The "old" ones will have the opportunity to highlight best practices and issues.

Dear MTT and AP Chapter Chairs....

You are welcome to a meeting during European Microwave Week (October 11-15, Amsterdam)! You will receive detailed information by email.

Dear NNS Chapter Chairs....

A chapter chairs' meeting is being held during IJCNN/FUZZIEEE, July 25-29, 2004 in Budapest.

The third edition of the "Chapter of the Year" contest is about to finish. Submitted forms have been evaluated by the jury, consisting of all CCS members. This year in the "Big" category, we have four Chapters and five candidates in the "Small and Middle" category.

Winners will be receive their awards during the R8 Committee Meeting, which will be held on April 24-25, in Krakow, Poland. Winning chapters will be presented in the next issue.

Jozef Modelski
March 2004

IEEE Standards

Nanotechnolgy — Creation of a Standards Roadmap

Nanotechnology, according to its fans, will jump-start a new industrial revolution with molecular-sized structures as complex as the human cell and 100 times stronger than steel. The new technology transforms everyday products and the way they are made by manipulating atoms so that materials can be shrunk, strengthened and lightened all at once.

Aided by recent advances in microscopes, scientists can now place single atoms where they want for the first time. The potential applications are numerous, with microscopic computers, cancer-killing antennae and non-polluting car engines on the distant horizon.

According to most scientific accounts, the nanotech future may be 10 to 20 years off. That looks unlikely, given the political support for cutting edge technologies across the world. The US Congress last year increased funding for nanotechnology research to $3.7 billion over four years. The EU and Japan also invest heavily in research into the new technology.

Worldwide, the two industries with the potential to win big with nanotechnology are electronics and biotechnology, according to MIT researchers. Nanotech-based products can be applied to healthcare to chip making and to aerospace.

First metrics standard for individual carbon nanotubes

In the first effort of its kind, the Institute of Electrical and Electronics Engineers (IEEE) has begun to develop a standard that will define electrical test methods for individual carbon nanotubes. The standard, IEEE P1650, "Standard Test Methods for Measurement of Electrical Properties of Carbon Nanotubes," will recommend the tools and procedures needed to generate reproducible electrical data on carbon nanotubes. Academia, the government and industry are invited to help develop the standard.

"The tests we will define in the standard will help form a bridge between the laboratory and the production line so basic researchers can communicate effectively with the engineers and circuit designers who will create commercial nanotube applications," says Daniel Gamota, IEEE P1650 working group chair. His colleague, IEEE P1650 Working Group secretary Paul Brazis, comments: "The standard will go beyond procedures to define the apparatus needed in measuring the small signals involved. Properties to be considered in the standard include basic parameters like conductivity, Hall effect and various superconducting values. It also will involve those specifically related to transistors, such as output curve and transfer function."

Standardization paves way for emerging technologies

Apart from being an interesting wireless technology, WiFi is also a good example of the galvanising power of standards. In this particular case, the standard is the Institute of Electrical and Electronics Engineers (IEEE) 802.11b protocol for wireless LANs (local area networks).

In fact, the IEEE has been working behind the scenes to organize standards for network protocols since 1980, only a few years after researchers at Xerox's famed Palo Alto Research Centre invented a networking protocol called Ethernet. Now, the IEEE hopes to repeat the success of such "anticipatory standards" in Nanotechnology.

"We often hear that it's too early to begin work on setting nanotechstandards," says Edward Rashba, manager of new technical programs at the IEEE. "But our experience with 802.11b shows that it is never too early."

To get the ball rolling, the IEEE is searching for a standard way to characterise the electrical conductivity of carbon nanotubes — microscopic, super-strong cylinders of carbon atoms, which (among other things) might one day replace the silicon in semiconductors.

As it happens, nanotubes have the potential not only to send electrons around integrated circuits faster and more efficiently than silicon but also to transport electrons at variable speeds. This creates the possibility of building chips out of variable transistors.

The IEEE P1650 standard, "Standard Test Methods for Measurement of Electrical Properties of Carbon Nanotubes," is sponsored by the IEEE Nanotechnology Council. For more information see:

http://grouper.ieee.org/groups/1650
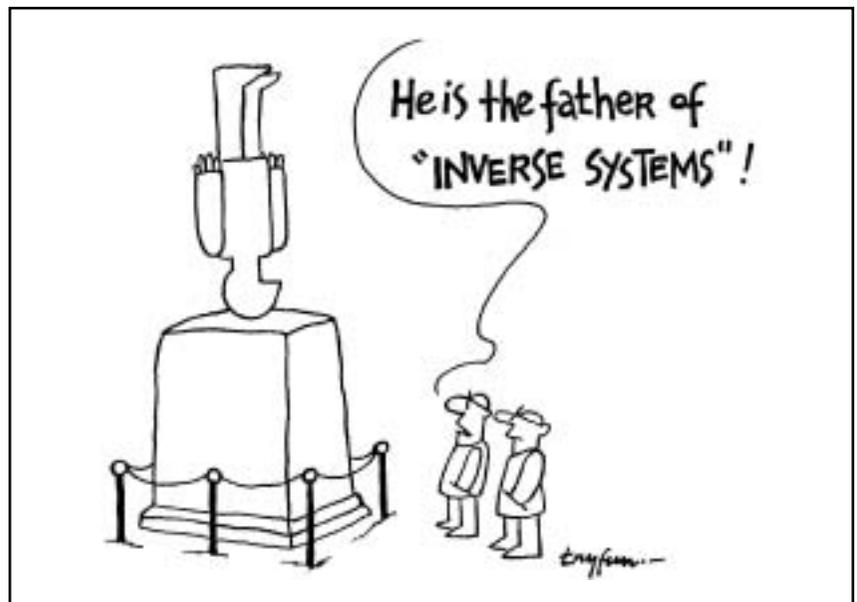
Photo Quiz

Winner of our November 2003 Photo Quiz

The winner of our November Photo Quiz was René Zingg, who recognised our picture of Toyota's hybrid automobile, the Prius. René works at Philips Semiconductors Technology Center, Zurich, Switzerland. He has a Dipl. Eng. from ETH Zurich and a PhD. from Purdue, USA. His research interests are SOI technologies and power integrated circuits for consumer electronics.
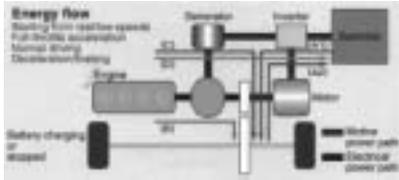
René writes: "An engine with a hybrid system relies on more than one source of energy; eg, gasoline/electric (as depicted), mechanical (flywheel), solar (most probably through conversion to electricity), etc.

"The sub-systems in the Prius include electric energy storage (12V and 298V), electric motor/generator, starter, ignition control, load balance electric/gasoline motor including energy recuperation during braking, temperature control 300V battery, load control 300V battery, display system, optional cruise control and probably many more.

"I find the attention to vehicles with lower environmental impact very positive. I have been driving the Toyota Prius depicted for almost two years and can attest that it is a mature system, which makes efficient use of the available energy; eg, the torque of the electric motor to start from standstill, or the stopping of the engine [at] traffic lights."

Editor's note:

If you would like to read how the Toyota Prius system works, download a brochure from *http://www.toyota.co.jp/en/tech/environment/ths2/SpecialReports_12.pdf*. This also contains interesting notes on the development and production of the vehicle and its systems. This personal Web site by electrical engineer Graham Davies, should also be of interest: *http://home.earthlink.net/~graham1/default.htm*.

The Prize....

The prize for the winning entry in this issue's Photo Quiz is an IEEE Millenium 2002 SWATCH. This prize, in common with all the other S W A T C H e s previously given as prizes for the Photo Quiz, was kindly donated to us by QUARTZWATCH, whose Web site (see below for the URL) provides visitors with some fascinating information on the history of electronic watches.

www.quartzwatch.ch

New Photo Quiz May 2004

Our photograph shows two electrical devices, pictured in a ladies' hairdressing salon in the early part of the twentieth century. Can you identify these two strange gadgets?

Some hints: the item on the left has mains power (220v) through suspended cables, each of which term-inates in resistive components attached to hair on the scalp. The item on the right is mounted on an adjustable stand and directs an airflow towards the customer's head.

Send your entry by post or e-mail — *r8news@ieee.org*, subject: "May Photo Contest" — by June 10, 2004. Your entry should identify the objects and appraise standards of operation and electrical safety.

Help Us Design the Future R8 News

We have already received a number of interesting responses to the reader survey questionnaire published in our February/March issue and we hope you will enjoy the first replies, some of which are reproduced here. Take a look at the range of stimulating opinions expressed in the "clippings" below and see whether you agree or disagree with your fellow readers.

Your comments will be discussed by our R8 News Advisory Panel (comprising previous editor Duncan Baker, senior member Hugo Wyss and current editor Roland Saam). We will report back to you in August on the summary of opinions received; our exploration of the issues raised; and some findings. If you have not already sent a response, please do so now by post or email.

"Overall, I would be very happy to get much Region 8 information, etc, via email, but I think it is still very important to have a printed R8News going out at least twice a year, partly to maintain a "Front-of-House" and PR presence, and partly to keep in touch with those members who are not on email or who can not access email easily."

"...printed form has the advantage that it can be read anywhere. Typically, when I read the R8News I'm not in front of my computer. For me, it is more relevant to have the longer articles in paper than the short news."

"Sorry to disappoint you after your hard efforts in producing the regional news. I am an out and out, anti-social, technical specialist in electro-magnetic-energy conversion, who only joined the IEEE to get access to the proceedings relating to my speciality,...... I prefer paper to screen information as the letters are crisper and easier to read, and the length of time it takes to read the screen makes it tiring."

"...if an electronic only version is the outcome, please send an e-mail saying that the latest issue is available."

"Although, to be honest, if I didn't receive this in hard-copy I wouldn't read it at all. When it arrives it gets added to the pile in the bathroom and read during, ah, quiet moments :) I must be behind the times as I don't have a wireless LAN at home or a tablet-PC hooked up next to the loo, so electronic form is unlikely to be read."

SURVEY — Region 8 News in Print, Email or Web?

Starting with the August 2004 issue of R8News, only 12 pages of printed content will be available. This means the editor has to make some hard choices about what to continue to publish in print and what should eventually be e-mailed to R8 members, who agree in advance to receive it their e-mailbox.

If you care about receiving news about our IEEE Region 8, please answer following questions:

1. Which content of the actual R8News would you like to absolutely keep in printed form? Answer options: (a) None; (b) Some (please specify which); and (c) All.

2. Are you interested in receiving R8 information that is time critical (schedule of conferences, call for papers, etc) by e-mail? Answer options: (a) Yes (specify any favourite topic), or (b) No.

3. *Can you access R8News at www.ieee.org/r8 ?*

Answer options: (a) Yes, easy access; (b) Yes, difficult or costly; or (c) No access.

4. Would you be willing to volunteer your opinion on R8 News content in a short telephone interview conducted by one of our members? Answer options: (a) Yes, or (b) No.

Please e-mail your answers and any further comments to *R8NEWS@ieee.org* with the subject: **Survey,** or post them to:

    The Editor, IEEE R8News
    149 Gloucester Road
    London SW7 4TH, United Kingdom

Please give your name and membership grade, and indicate the email or postal address where we can reach you. We shall keep this information strictly confidential and will not pass your e-mail or address to any third party outside R8 members.

Thanks for your cooperation, *The Editor*.

Photo Review — IEEE R8 Committee Meeting in Zagreb

The IEEE Croatia Section hosted the 81st IEEE Region 8 Committee Meeting in Zagreb, Croatia, on the weekend of October 11-12, 2003 at the Hotel Opera. On Saturday evening a dinner was organized in Bezanec, a castle 40km away from the city. Some of the participants took the opportunity to visit the famous Plitvice Lakes on Monday, the day after the meeting. Personal contacts and a lot of emails afterwards proved the event was very successful and well organized. *Thanks to Davor Skrlec and Aleksandar Szabo.*

REMINDER CALENDAR
Workshops, Conferences and Symposia in Region 8

Microwave and Radar Week
MIKON 2004 — 15th International Conference on Microwaves, Radar and Wireless Comms
IRS 2004 — 5th International Radar Symposium
EMFM 04 — Electromagnetic Fields and Materials
17-21 May 2004
Warszawa, Poland
IEEE AES and MTT Societies, AP/AES/MTT and ED Poland Chapters.
www.pit.edu.pl/mikon-2004

MIPRO 2004
27th International Convention MIPRO — Microelectronics, Hypermedia, Digital Economy
May 24-28, 2004
Opatija, Adriatic Coast, Croatia
petar.biljanovic@fer.hr
http://www.mipro.hr/

WILGA 2004 – 13th Symposium on Photonics and WEB Engineering
May 26-30, 2004
Warsaw, Poland
IEEE Poland Section, IEEE Poland Section SPIE Chapter
http://www. nms.ise.pw.edu.pl/wilga

MMS 2004 – 4th Mediterranean Microwave Symposium
June 1-3, 2004
Marseille, France

2nd Workshop on Signal Processing for Wireless Communications
June 2-4, 2004
Centre for DSP Research, King's College
London, UK
Co-sponsored by IEEE and IEE
Contact: farhad.zarringhalam@kcl.ac.uk
http://www.spwc2004.org

IEEE International Conference on Mechatronics
June 3-5, 2004
Istanbul, Turkey
Co-sponsored by IEEE Industrial Electronics Society
http://mecha.ee.boun.edu.tr/icm04

MED 04 – 12th Mediterranean Conference on Control and Automation
June 6-9, 2004
Kusadasý, Turkey
Co-sponsored by Mediterranean Control Association and IEEE
http://mecha.ee.boun.edu.tr/med'04

IEEE Section Conference
June 8-10, 2004
Saint Petersburg, Russia
Contact: Alexander Mikerov
a.mikerov@ieee.org

NORPIE 2004 – Nordic Workshop on Power and Industrial Electronics
June 14-16, 2004
Trondheim, Norway
IEEE Region 8 Nordic Sections, IEEE PEL Society
http://www.elkraft.ntnu.no/norpie/index.html
Tore.Undeland@elkraft.ntnu.no

ELMAR 2004 – 46th International Symposium Navigation, Multimedia and Marine
June 16-18, 2004
Zadar, Adriatic Coast

CHE 2004 – IEEE Conference on the History of Electronics
June 28-30, 2004
Bletchley Park, UK
IEEE Sponsor: IEEE History Center
www.ieee.org/organizations/history_center

ICCSC 2004 – 2nd IEEE International Conference Circuits and Systems for Communications
June 30-July 2, 2004
Moscow, Russia
Moscow Technical University of Communications and Informatics. Co-sponsored by IEEE Circuits and Systems Society.
http://www.mtuci.ru/info.htm
Contact: Dmitriev, iccsc-04@cplire.ru

4th International Symposium on Communication Systems, Networks and Digital Signal Processing
July 20-22, 2004
University of Newcastle, UK
An international symposium for young researchers, engineers and scientists to facilitate the dissemination of leading-edge information and discuss progress.
http://www.shu.ac.uk/csndsp

MEDSIP 2004 – Advances in Medical Signal Information Processing
September 5-8, 2004
Malta, G. C.
On the beautiful island of Malta, the jewel of the mediterranean, co-sponsored by IEE, IEEE EMBS UKRI Chapter, University of Malta, University of Southampton and Aston University Biomedical Information Engineering Research Group.
c.j.james@ieee.org
http://www.bierg.aston.ac.uk/medsip2004/

Mechatronics & Robotics 2004
September 13-15, 2004
APS, European Centre for Mechatronics, Aachen, Germany
IEEE Industrial Electronics Society
http://www.icit2004.com

AFRICON 2004
September 15-17, 2004
Gaborone, Botswana
Sponsored by IEEE Region 8.
http://www.eerc.up.ac.za/~ieee

PATMOS 2004 – 14th International Workshop on Power and Timing Modeling, Optimization and Simulation
September 15-17, 2004
Santorini, Greece
Cosponsored by IEEE Circuits and Systems Society.

IRMMW 2004 – 29th International Conference on Infrared and Millimeter Waves
September 27-October 1, 2004
Karlsruhe, Germany
Co-sponsored by IEEE MTT Society; Information Technology Society (ITG) of the German VDE; and the Institute of High Frequency Techniques and Electronics, University of Karlsruhe.
http://www.ihe.uni-karlsruhe.de/irmmw2004

REV 2004 – Int'l Symposium on Remote Engineering and Virtual Instrumentation
September 28-29, 2004
Villach, Austria
Remote engineering and virtual instrumentation, use of virtual and remote laboratories for advanced e-working environments.
m.auer@ieee.org
http://www.online-lab.net/rev

ICL 2004 – 7th Int'l Conference on Interactive Computer Aided Learning
September 29-October 1, 2004
Villach, Austria
Contact: m.auer@ieee.org
http://www.icl-conference.org

DIPED 20004 – Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory
October 11-14, 2004
Tbilisi, Georgia.
Contacts: Mykhaylo Andriychuk
andr@iapmm.lviv.ua, and David D.
Karkashadze, lae@access.sanet.ge

5th International Conference on 3G Mobile Telecommunication Technologies
October 18-24, 2004
London, UK
Technical forum for 3G mobile and related technologies will bring together researchers and technologists from manufacturers, service providers, operators, application developers, regulators and standards bodies to share the latest information and promote 3G.
Professor Marwan Al-Akaidi, De Montfort University, Leicester, UK.
http://www.cse.dmu.ac.uk/communications

Dedication....

This issue of IEEE Region 8 News is dedicated to the memory of Dr. Gordon H (Mick) Byford, who was its first editor, and who died in December 2003.

Mick's educaton combined a degree in Engineering with a PhD in Physiology and an advanced knowledge of statistics. In 1956 he joined the Institute of Aviation Medicine at Farnborough, UK, where he remained until his retirement. He became one of the institute's most respected members, and a world-class researcher into the application of statistics to electro-physiological signals. His love of learning never left him. He became a Fellow of the Institute of Electrical Engineers, the Royal Statistical Society, and the British Computer Society. He was a Chartered Physicist and a Chartered Engineer

Mick's work took him all over the world — to the United States, Australia and throughout Europe. And in his spare time he learnt Italian well enough to lecture extensively on biomedical engineering, in Italian, at the University of Naples. He was editor of the prestigious Journal of Biomedical Engineering.

Mick joined the IEEE in the early 1960s and was a prominent volunteer in the development of the United Kingdom & Republic of Ireland (UKRI) Section, of Region 8, and the IEEE Profesional Communications Society. He took on the task of editor of the IEEE Region8 News in 1983, which he edited, printed and published until 1998.

In 1989, IEEE RAB Larry K. Wilson Transnational Award was given to G. H. Byford, "for creative innovation in the editing, production, and management of the Region 8 News, thus improving communication and member service in Region 8."

I was fortunate in knowing Mick through many years of UKRI volunteer work. I remember his delightful sense of humor and capacity for patient expression which was so welcome during serious discussions.

I hope that you will enjoy some of the reflections from previous issues of Region 8 News which Mick edited. Thank you to his widow Judy, and son Roger for photographs and material quoted. I acknowledge the IEEE History Center archive "Williams, Winton, Byford Oral History" conducted in 1995 by William Asprey and historical documents sent by Bob Winton. *http://www.ieee.org/ organizations/history_center/ oral_histories/transcripts/ williams.html*

Roland Saam, Editor
February 2004

Two landmark issues of R8 News dating from Mick's time as editor.

THE HEURISTIC LEXICOGRAPHER

You will find amongst the contributions in this Region 8 News, a number of articles by specialists in some of the IEEE fields in which the members of Region 8 might be expected to have an interest. As with most of us, the IEEE started quite naturally in a small way and as with other natural events, it grew; as it did so it acquired a vocabulary related largely to its birthplace, the United States. English, as a language, is well known for its extreme simplicity, its freedom from that polysyllabic profundity and those grammatical, orthographical and syntactic difficulties which depend so much on the etymological proclivities of primitive Anglo-Saxon tribes helotized by acquisitive eastern potentates. Other languages are not so fortunate.

The Institute's internal language is designed to facilitate the passing of messages between the Committees, Offices and staff of the IEEE central administration in "New York" — this it does admirably. A problem does arise, however, when one of the internal functionaries wishes to communicate with the customers, you; his, or its, vocabulary consists of a number of short pronounceable words, Adcom, Wescon, etc., and a number of unpronounceable words to which suitable vowels are added locally as an aid to pronunciation; to these we add a variety of normal English words individually well understood but collectively puzzling. It is my hope that I can develop some kind of translation which will assist your understanding of IEEE terminology in general and the contents of Region 8 News in particular.

Geographical Organization

BofD B = Board, D = Directors. This is the equivalent of a company Board of Directors in that it is the highest level in the company hierarchy. The Chairman of the Board is the President and the Directors of the Regions and Divisions are its members.

EXCOM EX=Executive, COM = Committee, hence Executive Committee. In the central organization only the BofD has an EXCOM, the other Boards have an OPCOM — I do not know the difference between an OPCOM and an EXCOM, although the word EXCOM is used frequently in such matters as conference organization.

OPCOM OP = Operating, hence Operating Committee. Boards do not do any work, they decide what work should be done; the working element is the OPCOM and its members are volunteers.

RAB R = Regional, A = Activities. A Committee (Board) which deals with the policy and organization of Regions. Dr. Ruechardt is our representative this year, Prof. Orvik will take over in 1989 for two years. Its members are elected volunteers.

TAB T = Technical. A Board which deals with technical matters such as Conferences.

TABOPCOM The interpretation is left as an exercise for the student.

USAB US = United States. Deals with policy and organizational matters which affect members within the United States, i.e. the great majority of IEEE members.

Region The basic Geographical unit, it eases the problem of general organization and permits a considerable degree of local financial and administrative autonomy.

Section A Geographical division of a Region. In Region 8 it varies in size from 50 to 3,000 members; it is usually based on countries. Every Section has a representative on the Regional Committee.

Technical Organization

Society A group of IEEE members having similar interests; a Society has no geographical boundaries.

Chapter A subdivision of a Society, its members have the same technical interests as those of the parent Society. For administrative purposes a Chapter operates within a Section.

Division A group of Societies which for organizational and administrative purposes operates under a Divisional Director and an associated Board. Its exact operational role is unclear.

Council A group of Sections organized on a geographical basis. Its geographical area is variously defined; it exists for administrative convenience. It seems that a Council may also be a collection of Societies, but again the distinction between geographical and technical Councils is unclear.

Transnational To non-US IEEE members this would be equivalent to "international". It does not appear in the English Dictionary but it is thought that it is intended to mean "an absence of political boundaries."

Some of these names, divisions and subdivisions may be thought of as a text book in which there are Sections and Chapters; the printed characters are presumably you the members — the functions of paragraphs and words has yet to be defined.

This is a simplistic view of a complicated organization; I have no doubt that I shall have offended unintentionally someone whose function has not been mentioned or has been misinterpreted — for this I apologize in advance. I would however, emphasize that it is only an approximate guide for the elementary class, not an advanced treatise for the postgraduate doctoral student.

This article by Mick Byford was first published in the August 1988 edition of Region 8 News.

IEEE region8*student* news

Hi! In 2004, IEEE Region 8 Student Activities Committee (SAC) plans some new initiatives for IEEE student members. If you want to learn more, please read on....

Tomorrow's Region 8"

Start planning for the next IEEE Student Branch Congress *now*! September 4-7, 2004, we will meet other IEEE Region 8 student members in Passau, Germany. It is our annual opportunity to meet with you, to learn from our experiences and, of course, to have fun! I'm looking forward to meeting you at SBC 2004! Get the details and join us — Feb/March R8News, page 17 or *http://www.ieee.org/sbcgold2004*.

Visit http://www.ieee.org/r8sac to learn more about all the student activities going on in Region 8!

Let's Connect European Youth "Online"!

January 30 to February 1, 2004, delegates from several Student Associations met in Brussels at one of the most innovative meetings ever in terms of cooperation between Student Organisations.

The meeting, organised on the initiative of European Students of Industrial Engineering and Management (ESTIEM, *http://www.estiem.org/*), aimed to set a common approach to collaboration between Student Organisations in Europe. A new European portal will be created to strengthen knowledge sharing, identification of common areas of involvement and major media coverage. It will be a useful tool to exchange information of interest to students, in one place.

Why is it innovative? There isn't any portal where one can find all the events organised by the different Student Organisations. There isn't any other portal where our active members or students interested in our events can meet! I am sure that you have many ideas yourself.... Let us also learn of them!

We have many diverse activities, projects, organisational structures and cultures, but we all operate in the same environment and communicate in the same way. A major part is supported by IT systems. But these communities are not really interlinked.

Participants in this initiative were ESTIEM, EESTEC (Electrical Engineering Students' European Association), IEEE, JADE (European Confederation of Junior Enterprises), BEST (Board of European Students of Technology) and ELSA (European Law Students' Association). The meeting was hosted by the ULB, Université Libre de Bruxelles, Belgium.

Best regards.

Basak Yüksel
IEEE Region 8 Student Representative
basak@ieee.org

From R8 Vice-Chair Student Activities

Hi all! Four very active months have gone by. There are many interesting initiatives going on. You can find information about all of them on the Web page: *http://www.ieee.org/r8sac*.

- The IEEE Region8 Chess Contest, organized by Biysk Technological Institute (BTI) IEEE Student Branch in Russia, and the 24-Hour Programming Contest, will take place in Budapest, Hungary. Details from Eugene V. Sypin, *http://www.ewh.ieee.org/sb/bti/index.html chess.reg8@ieee.org*.
- The Region 8 Web Site Contest is taking place with Region 8 selection chosen by April 30 to compete worldwide. The winner will be announced by May 15. Check here for the latest news: *http://ewh.ieee.org/reg/8/sac/websitecontest.php*.
- The 2004 Student Paper Contest is taking place in Dubrovnik, Croatia during IEEE MELECON 2004, May 12-15.

Remember, students attending conferences willing to organize a student event can ask for travel support. People meet and network at the R8 Student Forum Virtual Community. You can learn about awards, opportunities, and how to get the most of your IEEE membership.

Plan to attend Region 8 Student Branch Congress? Check it out at *http://www.ieee.org/sbc2004* . Don't miss these opportunities! Check the Web.

I am always looking forward hearing your feedback!

R8 Student Activities Chair
Pilar Molina Gaudo
pimolina@ieee.org

Belgium
IEEE Leuven Student Branch

The IEEE Student Branch Leuven for the academic year 2003-2004 was formed with new PhD and Master students supported by some of the Student Branch members of the previous years. At the moment, we have an active team of 15 members. Due to "competition" with other student organizations at our university, our main activities lie in the more serious activities, although we always try to take a *student* approach. We try to organize five to ten activities a year.

The purpose of our first activity, a movie night, was to promote the student branch among the students and thereby recruit new members. At the reception following the film, we had the chance to talk to students, explain what the IEEE is and why they should join us.

Our next activity was a technical seminar on fuel cells which was co-organized with a local organization of engineers (VILv). This was quite a success since we had a full house.

After a short rest period during the exams, we recently resumed our activities. We supported an educational trip to Germany, and held a seminar entitled "Building The Wireless World." Two speakers from Agilent Technologies, Belgium described the field of wireless communications and offered us a look at ongoing research for the applications of the future.

Activities to come for this academic year include both technical and social events. We have another technical seminar planned on "The effects of non-ionizing radiation on human health." We will also organize a debate on employment opportunities for engineers, especially concerning the movement of companies to the Far East.

On a lighter note, we will also be organizing a course on beer degustation, which allows our student branch to become better known. At the same time, people get the chance to enjoy our wonderful Belgian beers. This beer degustation course will also include a visit to a brewery.

Ghana
KNUST IEEE Student Branch
Kumasi, Ghana

After just one year's existence, Kwame Nkrumah University of Science and Technology (KNUST) IEEE Student Branch is still striving to have a well-organized structure made up of committed members and executives. We have had instructive workshops such as an IT Seminar — in conjunction with the Electrical Engineering Students' Association of our school — and an orientation in student paper writing. Unfortunately, we failed to take part in the *just-passed* student paper contest; this was partly due to our inadequate preparation in spite of our efforts in that direction.

One thing is certain: IEEE provides a platform for student members to develop their potential. We appreciate the efforts of our counselors, Dr. Felix Akorli, Dr. Boateng and Dr. Diawuo, Prof E. A. Jackson — all of them in the Electrical Engineering Department of KNUST — for their support for the positive changes that KNUST IEEE SB is bringing to the Electrical Engineering Department.

Finally, the branch hopes to be present at SBC 2004, which will take place in Passau, Germany. Through this congress, we hope to share ideas towards the growth of KNUST IEEE SB and the future creation of a Ghanaian Section of IEEE. For more information about our student branch, please visit: *http://www.ghana-youth.com/ieeeknust.*

Yayra de Souza
KNUST IEEE SB Chairman
ydesouza@ieee.org

Jordan
JUST IEEE Student Branch

The Jordan University of Science and Technology (JUST) IEEE Student Branch has organized two trips to the King Hussein Thermal Power Station to the North of Jordan. The trips are intended to give students on the Power System Course (EE337) a real and practical overview of the power systems.

Students visited the three main parts of the station accompanied by an expert from the station, who took responsibility for explaining its generation, transfer and distribution of power.

Mohammed Nasser Al-Khasawenh
JUST IEEE SB Chair

Hashemite University IEEE Student Branch

To be an effective part of student activities in your university, you — as an IEEE student branch officer — *have* to be a "cyberactive," creative and initiative-oriented person.

The Hashemite University Branch committee has arranged many useful and interesting technical trips during the last year. Participating students came from diverse engineering departments — electrical, mechatronics and biomedical engineering.

The primary goal of such activities is to support the practical part of study plans and connect students with the Jordanian industry and the local marketplace.

One of our interesting trips was to the LG Electronics Factory in Sahab Industrial City. Twenty two enthusiastic students gathered in early morning to view the production lines of TVs, refrigerators, air conditioning units, and other electrical equipment used daily in their homes.

Our tour guide inside the factory, Eng. Lion Yousif, was so kind and patient — he answered all our curious questions during the three-hour tour. At the end of the trip, Eng. Lion delighted us by recounting how

LG assures the quality of its products, and how the factory cooperates with engineers at official maintenance shops to get an optimum design for upcoming production lines.

I'd like to thank everyone at the LG Factory for their hospitality, and all the participating students who contributed so effectively to this technical trip.

Best Regards from Jordan.

Mohammad Khawaja
Hashemite University IEEE Student
Branch Mentor

University of Jordan IEEE Student Branch

The IEEE Student Branch at the University of Jordan started this academic year with the election of new officers in October 2003, and since then, this new committee has set out with enthusiasm and determination to make the branch more active and to encourage more student involvement.

We started with a presentation given by the branch chairman and secretary about the IEEE, its goals, the countless benefits of membership, and the coming branch activities. The number of attendees was excellent and the students were all very enthusiastic to join.

On December 12, 2003, the IEEE Jordan Section in collaboration with our student branch held a lecture entitled "Mobile Systems From the Beginning To the Future..." which was the first in a series of presentations on this topic given by Ericsson CS and SS Manager in the North Middle East, Eng. Mohab Daquah. Eng. Mohab holds a Masters Degree in Electrical Engineering from the University of Jordan, and has held several positions working with Ericsson in Sweden, the United States, Belgium, and here in Jordan.

The lecture, which was attended by more than 120 students, covered an introduction to mobile telephony from a historical point of view; describing the basics of wireless technology; the radio environment and how it affects the design of mobile systems; the various multiple access technologies (FDMA, TDMA, and CDMA); the architecture of GSM systems; and finally going through different traffic cases.

Also, on the December 21, the branch organized a lecture about Open source technologies (Linux and Redhat operating systems) given by specialists from IT University Center.

In our branch, we believe in the importance of staying connected and being constantly in touch with the latest technology, that's why we feel such lectures and presentations play an important role in increasing awareness and preparing students to become professional engineers and technologists.

During the winter break, we organized two training courses: CCNA, and Open Source Technology (Linux). As for the new semester, we have a lot in store as we go on creating an active IEEE community at the University of Jordan and carrying out the purposes and spreading the message of IEEE.

Lina Ejeilat
University of Jordan Student Branch

Nigeria
OAU IEEE Student Branch

The Obafemi Awolowo University (OAU) IEEE Student Branch is setting new records!

Following our "IEEE Student Membership: Benefits and Prospects" seminar, we registered more than 20 new members for the IEEE membership year. The lecture was delivered by Prof. Olorunfemi Ojo, Tennessee Technological University, Cookeville, Tennessee, USA.

The seminar was an eye opener for the students. After the seminar, the branch counselor, Dr. M. O. Omogui from the Department of Electrical and Electronics Engineering, OAU, gave a speech on the essence and benefits of a healthy participation of the student members in the activities of the IEEE. He said the students should not be satisfied with just being members of this prestigious professional body but that the student branch has also to be *active*. The student members got together and decided to make their membership worldwide.

As a result, two student branch meetings have been held and executive members elected to run the branch affairs. Students have shown interest in participating in paper writing contests, workshops and planned

excursions, amongst others. Participation of the branch in the forthcoming "Electronic Week" of the Electrical and Electronics Engineering Department is also being considered.

Committees have been set up to oversee the activation of the branch's Web page on the Nigerian section Web site and also the possibility of setting up its own. Another point that was considered is looking into an effective way of publishing the branch activities. Plans to set up notice-boards at strategic points on campus have reached an advanced stage.

A seminar to be held on "The Use of Matlab/Simulink for Modeling, Analysis, Design and Simulation of Systems" has been planned.

Adegbege Ambrose Adebayo,
Student Branch Chair
amby@ieee.org
Odegbami Harrison Oladele,
Student Branch Secretary

NAU IEEE Student Branch

The Nnamdi Azikiwe University (NAU) IEEE Student Branch organized a one-week exclusive IEEE student activities week, termed "The IEEE NAU SB Week," February 16-20, 2004 to celebrate the second anniversary of the branch. It was indeed another explosive week of IEEE activities at NAU, Awka, South East of Nigeria (named after the first Nigerian President, Rt. Hon. Dr. Nnamdi Azikiwe).

NAU SB officers and guests after the Student Professional Awareness Conference

Highlights of the week's activities included:
• Visit to Prospective Student Branches — The IEEE NAU SB visited the Ambrose Ali University (AAU), Ekpoma, Edo State and Federal Polytechnic, Oko Anambra State. The IEEE NAU SB

delegates to these schools stayed two days at each of them.

- Membership Promotion Campaign/ Awareness — The IEEE NAU SB members visited all the electro-tech departments of the institution to give speeches to the students on the benefits of the IEEE. This also involved the distribution of promotional items sent to the branch by the Women in Engineering (WIE) headquarters, ranging from candy to stationery such as highlighters, pens, puzzles, post-it notes, etc. As part of the promotion, a 40% discount on student dues was offered to those intending to join.

- Technical Visit — The IEEE NAU SB visited the South-East Territorial Headquarters of Nigerian Tele-communications Limited (NITEL) in Enugu State, which is one of the firm's five zones across the country. The team from the NAU SB visited the Operations and Maintenance Center (OMC), the Digital Network Exchange (DNX) System and, finally, the Digital Carrier Room. Multi-plexing and radio equipment as well as other types of equipment used by the company were all shown to the students.

- The second Student Professional Awareness Conference (SPAC) — This conference featured a guest speaker, Engr. Giandomenico Massari, (SMIEEE) from Italy. Engr. Massari spoke on "professional development;" Ogu Chukwunonye (ex-technical committee Chair, IEEE NAU SB and a guest student lecturer at Baker College, USA) presented a paper on "Systems Design Using Architectural Approach;" and Engr. Mrs. Christiana Okezie, advisor of WIE NAU SB, spoke on the "Benefits of IEEE to a Woman Engineer."

This conference also initiated the formation of the IEEE Women In Engineering Student Branch Chapter, the Computer Society and the Communication Society at Nnamdi Azikiwe University, Awka by Engr. Tunde Salihu, the Chair of Nigerian Section Computer Society Chapter. There were over 500 students in

Student Activities @ IEEE Melecon 2004
Melecon 2004, May 12-15, Dubrovnik, Croatia

The 12th IEEE Mediterranean Electro-technical Conference — MELECON 2004 — will host the finals of the 2004 Region 8 Student Paper Contest. The SPC jury has selected five papers. These will be presented in a special session where the jury will make its final decision. All papers will also be included into the Melecon Proceedings.

Melecon 2004 is also organizing its own student paper activity. The purpose? To recognize excellence in a conference paper contribution whose primary author is a student.

The basis? Originality, clarity, and potential impact on practical applications or theoretical foundations MELECON 2004 Best Student Paper Awards will be awarded to three students who have sent their papers through the regular conference submission system. Nine finalists have been selected and the three winners will be announced at the Conference Gala Dinner.

The broad topic fields were:
(a) Circuits and Systems for Signal Processing.
(b) Information and Communication Technology.
(c) Power Resources and Systems.

All finalists have been invited to the Conference Gala Dinner where the three winners will be able to receive their awards.

Marko Delimar
SAC Awards and Membership Development, and Melecon 2004 Awards Committee Chair

attendance from other student branches as well as NAU.

- A technical evening/movie night — IEEE Video clips were shown on "Careers for Electrical Engineers and Computer Scientists."

- A seminar on the World Wide Web (WWW) by Ogugua-Eze Onyekachi, who chairs the IEEE NAU SB Technical Committee.

- Free on-line access for IEEE NAU SB members to explore the benefits of the IEEE to students and how to use the IEEE Web site efficiently as most of the benefits are Web-based. We would like to give a vote of thanks to Pilar Molina Gaudo, the IEEE Region 8 SAC Chair, and Carrie Loh, the administrator of the IEEE Women In Engineering Committee for their immense contributions towards the success of this program.

For more details about IEEE Student Branch activities at Nnamdi Azikiwe University, please visit our Web page: *http://www.unizik.com/ieee.*

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University of Ibadan IEEE Student Branch

As part of the annual SEEES (Society of Electrical Electronic Engineering Students) Week, an IEEE Day was held at the Technology Lecture Theater on February 5, 2004 in the University of Ibadan (UI). The seminar was chaired by our branch counselor, Engr. Niyi Kamil, and the Head of Department, Dr. A. Olatubosun. Other lecturers were also in attendance at the IEEE Day. There were IEEE expositions by Mr. Funso Adebayo, who represented the Nigeria Section and is also the branch mentor of the student branch, and Debo Onifade, the student branch chair.

The IEEE Day featured a technical seminar presented by Mr. Goke Olabisi from DCC Network and Satellites, Lagos, Nigeria and a workshop on GSM Phone repairs by Mr. Yomi Lazh.

Goke spoke on "The Communication Technology in Nigeria," enlightening participants about the communication industry in Nigeria, from the past, present and futuristic points of view. He talked about communication modes like VSAT, fiber optics, microwave and ISDN, amongst others, explaining the differences

among them and their usage in Nigeria. He greatly informed the participants about how developed the communication industry in Nigeria has become, especially in the financial institutions and other big establishments that rely on technology to deliver quality services.

A project exhibition by some Computer Science students, featured an Electronic Voting System, which was tested by the Chemistry Department to conduct its departmental election and was ajudged a great success.

Women In Engineering was also launched on the IEEE Day and UI IEEE SB decided to start a Computer Society and WIE as soon as we are able to get the resources to register.

Debo Onifade,
Chair, IEEE University of Ibadan SB
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University of Lagos IEEE Student Branch

The University of Lagos IEEE Student Branch would like to visit some of our fellow IEEE Region 8 student branches in order to share and exchange ideas and technical information; to promote understanding and co-operation between Region 8 student branches; and to organise joint activies and exchange programs. We hope to continue networking and hear from you all.

Oguntoyinbo Olawuyi Gbolahan,
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University of Nigeria IEEE Student Branch

Nsukka, Nigeria
We have undertaken a lot of restructuring in the activities of the student branch. We have now established the following aims and

objectives for the University of Nigeria IEEE SB:

- Technical sessions — Areas include: software, hardware, entrepreneurship and Management.
- Interactive sessions — Every general meeting includes an interactive session. The aim is to get every member attending the meeting to participate actively. Interactive sessions cover activities such as the design of projects, tackling mathematical puzzles, debates on recent technological advancements, etc.
- Branch projects, technical tours and technical films — On November 13, 2003, a talk on "Multivibrators" was delivered by Chivuzo Offiah and on February 6, 2004, we hosted a technical session on "Satellite Communications and VSAT" by Chidi Oguamanam. More than 60 student attended these technical sessions, which were organized and delivered by IEEE members and undergraduate students.

In order to increase awareness and attract students to join IEEE, members of student branch wore IEEE tags during the months of January and February. We also printed and pasted "Join IEEE" posters in different locations around the Faculty of Engineering and Faculty of Physical Sciences.

The branch project that is currently embarked on is a prototype Global Position System (GPS) for small areas — a few square kilometres. Please contact me with your suggestions for this branch project.
Thanks!

Chinedu Okafor
IEEE UN SB Secretary
chi6okafor@yahoo.com

Poland
WUT IEEE Student Branch
The Poland Section of IEEE and Warsaw University of Technology (WUT) IEEE Student Branch would like to welcome you to participate in a large R8 student, young scientist and GOLD meeting in WILGA near Warsaw.

WILGA Conference on Photonics and Electronics Applications in Industry, Astronomy, High Energy Physics

Greek-Turkish IEEE Student Branch Meeting
Xanthi, Greece

On February 19-21, 2004, the First Greek and Turkish IEEE Student Branch Meeting took place in the city of Xanthi, Greece, hosted by the Student Branch of Thrace and the Democritus University of Thrace. Bogazici University IEEE Student Branch was responsible for the arrangements between Turkish branches. This meeting was the result of co-operation between the Student Branches of Thrace and Bogazici, established in 2003 by four Turkish students in Xanthi.

Twenty five students from Greece participated in the meeting from two universities: Democritus University of Thrace, and Aristotle University of Thessaloniki. Twenty five students attended from four Turkish universities in Istanbul: Bogazici University, Istanbul Technical University, Sabanci University and Yildiz Technical University.

All 50 students had the opportunity to present their student branches, talk over many interesting subjects concerning their mutual IEEE activities, and exchange cultural information about their countries, as well as participate in

some entertaining activities. The official schedule of the meeting was as follows:

Thursday, February 19

Morning   *Introductory speech, presentation of the branches.*
Afternoon   *Discussion time, cooperation between SBs, financial aid, activities.*
Evening   *Official dinner.*

Friday, February 20

Morning   *Technical trip — visit to the hydroelectric power plant at Thyssauros.*
Afternoon   *Technical speech — "Efficient Email Communication."*
Night   *Party — the annual student masquerade dance.*

Saturday, February 21

Morning   *Visit to the old town of Xanthi, shopping at the bazaar.*

Experiments, Internet, Web Engineering and Mechatronics, etc. is a multi-disciplinary, open meeting for everybody interested in sharing the results of her/his research results with a crowd of similar devoted young people from our Region8.

The meeting takes place in WILGA near Warsaw (the capital of Poland) in a village resort owned by Warsaw University of Technology. The proceedings are published in the well-known series of Proceedings of SPIE. The scientific sessions of the conference are "sliced" with an IEEE sponsored B-B-Q and delicious cake-and-wine reception. More details can be found on the Web: *http://nms.ise.pw.edu.pl.*

Best regards.

Ryszard S. Romaniuk
IEEE WUT Student Branch Counselor
R.Romaniuk@ieee.org

WrUT IEEE Student Branch
Wroclaw, Poland

Our new IEEE Student Branch at Wroclaw University of Technology (WrUT) has a lot of scientific interest in the field of photonics, and we invite you to the International Students and Young Scientists Workshop "Photonics and Microsystems 2004."

This event will be held in Wroclaw, Poland on June 24-27, 2004 and it's organised by the IEEE Student Branch at WrUT with support from the Faculty of Microsystem Electronics and Photonics. The objective is to enable presentation and promotion of young researchers from Poland and the other European countries. The workshop's organizers want to establish information interchange between scientists and students at an early stage, and to promote co-operation in the field of photonics at a local and international level.

The main subjects of the workshop are integrated optics, photonic, optical fiber applications, optical fiber elements and signal transmission, optoelectronic devices, electro-optical circuit boards, optical interconnects and packaging, near-field optics.

There is always a great need among students who are IEEE members to get an opportunity to meet science-related people from Poland and Europe. "Our intention was to establish an annual photonics event, not just for experienced scientists, but mainly for all the students interested in optoelectronics," says WrUT IEEE SB Counselor, Dr. Hab. Sergiusz Patela. "This is a great occasion to discuss new technologies and to get in touch with knowledge of modern photonics."

We will visit the Karkonosze mountains to stay in a beautiful environment at the WrUT Resort Center, and there discuss photonic issues. "Top technologies on top of the mountains," says Przemyslaw Pawelczak, Chair of the WrUT IEEE SB.

For more info, contact me at the email address below or take a look at the Workshop Web site:

www.wemif.net/optoel/workshop.html
Rafal Dylewicz,
Vice-chair of WrUT IEEE SB and Chair of Organising Committee
rafal.dylewicz@pwr.wroc.pl

Turkey
METU IEEE Student Branch
Ankara, Turkey

On December 29, 2004, we had a one-day outing to Elmadag Mountain, which is approximately 40km from Ankara city center. We enjoyed a barbecue party on the glaring whiteness of the mountain. In the afternoon, we spent our time by joining the entertainments in the Elmadag Mountain facility of the Middle East Technical University (METU) of Ankara.

Singing, role-playing and dancing activities made us forget our tiredness. After a very joyful and entertaining day of social activity, we got on our way back home, namely IEEE headquarters of METU. It was a great experience for most of our members, and it again made us remember the meaning of sharing something as a family. Let's hope for a renewal of this event.

We started a new project to empower our relations with industry as a related activity of Science Parks Summit (May 3, 2004, in Ankara). We aim to make IEEE Student Branches familiar with the industrial activities happening in their region. As potential entrepreneurs, we want to be aware of the support available to new businesses so that effective progress can be made on behalf of industry/university relations.

As a first step, the project will spread into Turkey, then we plan to involve *all* the Region 8 student branches. The content of the project will be provided by IEEE Student Branches. Statistical data, cultural, financial descriptions of the institutions, science parks and related firms, interviews with related people and articles about the topic will form the content of the report. These reports will be shown on the Web site of the Science Parks Summit:

www.teknozirve.org.tr

We want to get involved in some

METU IEEE Student Branch's one-day outing to Elmadag Mountain

The Engineering in Medicine and Biology Student Society UKRI is organizing the fourth annual student conference on biomedical engineering and medical physics. Building on the success of previous years, this conference offers a program of guest speakers and presentations from students. The event takes place at the University of Southampton on August 10-11, 2004. For more information, please see the Web site:

http://ewh.ieee.org/sb/ukriembs/ pgbiomed04/

programs of the EU (European Union), the World Bank and IEEE with this project, so we look for participants from other countries in order to increase international collaboration between IEEE Student Branches. If you see the advantages of cooperation with industry and would like to be involved, send get in touch with us by emailing *teknoproje@ieee.metu.edu.tr.*

IEEE Turkey Student Branch Congress 2004

Eskisehir, Turkey

IEEE Turkey Student Branch Congress was a 3-day event that included technical, non-technical and "Student Branch Leadership" workshops, technical trips and presentations of Student Branches. The congress took place on February 13-15, 2004 in Eskisehir, a big city famous for its meerschaum, called "White Gold;" historical places like Gerdek

Kaya Monument, Yazilikaya (Midas City), the House of Nasreddin Hodja, etc.; and hot mineral springs to the west of Ankara.

The past success of previous National Student Branch Congresses (NSBC) in other Region 8 countries encouraged IEEE student members in Turkey to organize the first NSBC. With the united efforts of Anadolu University and Osmangazi University IEEE Student Branches, as well as invaluable contributions from METU IEEE Student Branch, the congress was a success in organization, student attendence and in terms of information sharing.

There were almost 130 IEEE student members from all 27 Student Branches and also from four candidate universities to establish IEEE student branches in Turkey. The aim of the congress was to establish a platform to share experiences, to increase the communication and cooperation between student branches in Turkey; to discuss problems and new ideas such as organizing both individual *and* joint activities; to have a chance to improve personal skills in the technical and non-technical workshops that were held during the congress; to be able to introduce all student branches in Turkey to each other; and to all have fun together. The other important factor in the congress was the initiative to introduce Turkey-wide IEEE activities such as a joint Web site, a robotics competition, a summer academy, industry relations projects, etc.

The congress was supported by the IEEE Region 8 Student Activities Committee, IEEE Turkey Section, and by several leading companies in Turkey, including Turkcell, EKOM and Savronik.

The main goal is to make this congress an annual meeting point for IEEE Turkey Student Branches and to achieve continuity of this initiative among different student branches both within Turkey and Region 8 as a whole.

Basak Yüksel
IEEE Region 8
Student
Representative

Uludag IEEE Student Branch New Term Party

Uludag IEEE Student Branch

Bursa, Turkey

Uludag SB New Term Party! We had more than 40 people at our "New Term's Celebration" party that was arranged in Bursa-Cevriye Bar on Friday night, February 20, 2004, by IEEE Uludag University Student Branch. Parties provide us high motivation by getting us away from the stress caused by our lessons and exams.

Cagdas Cubukcu
Chair, IEEE Uludag University SB

South Africa
University of Pretoria IEEE Student Branch

The University of Pretoria (UP) IEEE Student Branch is proud to say that 2003 has been one of the most active years in the its history. The SB is looking forward to an even more active year for 2004.

Last year saw the establishment of a new committee, who got down to work from *Day One*. Some of the activities that the SB organized included: a local Web site competition, with the winner being submitted to the Region 8 competition; and, as per usual, the SB has also submitted a paper for the Student Paper Contest, and we wish Roelof Swanepoel the very best in his endeavor to be the winner.

Without doubt, the major event that took place last year was IEEECON 2003, a fund-raising and promotional event where students came together and struggled for the title of being the best in typical LAN party fashion.

With support from the Department of Electrical, Electronics and Computer Engineering, the SB was able to organize an event that could cater for 45 gamers and any of their needs. After the overall event, people walked away with smiles *and* a few dented egos. The event provided the Student Branch with much needed promotion and funds for 2004.

The SB is looking forward to attending the Student Branch Congress and hopes to spark some lasting friendships with other branches and members. The SB Chairman, Jonathan Page, would like to thank all those that made 2003 such a great year and wishes all student branches a happy and very prosperous 2004.

Meet our Cartoonist — Prof. Tayfun Akgül

Tayfun has been a professor in the Faculty of Electrical-Electronics Engineering, Department of Electronics and Telecommunications at Istanbul Technical University (ITU) since July 2002. He also happens to be the talented originator of the cartoons that illuminate every issue of IEEE Region 8 News.

Tayfun currently teaches graduate and under-graduate level courses in Signals and Systems, Detection and Estimation Theory, Probability Theory and Stochastic Processes. He also conducts research in the area of signal/image processing.

His academic writings have appeared in *Physical Review Letters*, (EUROSIP) *Signal Processing*, *IEEE Transactions on Signal Processing*, *IEEE Transactions on Circuits and Systems, IEEE Transactions on Biomedical Engineering*, *Materials Evaluation*, and *Materials Journal*.

After receiving his PhD in Electrical Engineering from the University of Pittsburgh in April 1994, Tayfun became a NATO postdoctoral fellow at Pittsburgh. He went on in 1997 to become Visiting Assistant Professor and later Research Associate Professor in the Electrical and Computer Engineering Department at Drexel University, USA. In 1999, he returned to Turkey to take up the post of Chief Senior Researcher in the Information Technologies Research Institute at Tubitak.

As if his academic activities were not enough to fill his time, Tayfun also works as a professional cartoonist. He has been an active member of the Cartoonists' Association of Turkey since 1986 and his work has appeared in various Turkish math and science books as well as a number of international publications, including this one. In the framework of the June 2000 IEEE International Conference on Acoustics, Speech and Signal Processing (Istanbul, Turkey), Tayfun organized a competition and exhibition titled "Humor in Science, Mathematics, Communications and Information Technology" with special

Our resident cartoonist at R8 News, Prof. Tayfun Akgül

emphasis on "Humor in Signal Processing." The contest drew submissions by 238 cartoonists from 44 countries.

Tayfun has been one of the editors of online cartoon site *WittyWorld* since 2002 and his cartoon corner "Et Cetera" appears in the *IEEE Engineering in Medicine and Biology Magazine*.

United Nations listens to IEEE Members

IEEE Women in Engineering
www.ieee.org/women

At the United Nations, IEEE member Dr. Sylvia Wilson-Thomas speaks on global engineering needs, "Increased recruitment of girls and women into engineering is a global need."

On March 25, during America's National Engineers Week, IEEE members were involved in a United Nations briefing, "Girls and Technology: New Educational Opportunities." Dr. Sylvia Wilson-Thomas, representing EWeek and IEEE, reported on "Introduce a Girl to Engineering Day" and other science, technology, engineering and mathematics programs to promote education for girls and career opportunities for women, as part of the weekly UN Department of Public Information briefing for non-governmental organizations.

IEEE Women In Engineering member Patricia Eng and IEEE staff Carrie Loh participated. IEEE member Sylvia Thomas informed the international audience of WIE's efforts around the world to make Engineers' Week an international event.

National Engineers Week invited support of its initiatives, with the following: "We, the undersigned, encourage all nations to seek the talents, viewpoints and intellects of women in engineering and related mathematics and science fields. Encouragement, education and work opportunities for girls and women in these fields are imperative to generate and turn ideas into reality for the health, safety, and welfare of all."

For years, the engineering community has recognized the need to bring more women into its ranks. Currently, only one out of ten engineers in America is a woman. National Engineers Week launched "Introduce a Girl to Engineering Day" in 2001 to provide girls and young women with a firsthand experience in the engineering arena. An estimated one million girls have been involved annually in what is considered to be the first outreach program targeting girls ever established by a single profession.

Further information about the opportunities to extend Engineers Week initiatives to all countries, visit *http://www.eweek.org* or contact *Carrie Loh c.loh@ieee.org*.

AFRICON 2004

2004

15 - 17 September 2004
Gaborone, Botswana
http://eerc.up.ac.za/~ieee/.

Call for Registration

The IEEE AFRICON 2004 has successfully received over 200 glittering papers around the central theme of technology innovation. The deadline for paper submission has now expired. However, the committee would like to invite guests and industrial exhibitors interested in attending the conference to register today! All attendance & registration details are available on the conference Web site:

http://eerc.up.ac.za/~ieee/

Further enquiries:
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MELECON 2004

May 12 -15, Dubrovnik, Croatia

IEEE Region 8 Croatia Section

http://www.melecon2004.org

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