



Singh lecture p11

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Unity and Baltic growth strengthen R8

REGION 8 Committee meeting is an assembly of all IEEE Section Chairmen (46) in Region 8 and the elected officers – the executives (chair, secretary, treasurer, etc) plus chairpeople for various committees such as Conference Coordination, Chapter Coordination, Membership Development, Awards and Recognition and many others.

Region 8 policy takes shape from motions for new items but also from changes to old ones. This way Section Chairs are involved directly in



Region policy, projects and so on. Because volunteer officers change all the time, to have fresh willing support, everything for acting and new incoming officers must be clearly written.

We have two such meet-

Egypt Section's Engineering Day in August provided plenty of tourist opportunities for visiting IEEE members.

ings each year. It has been suggested that we should split our Region into more territories in order to shorten the travel distances, but we feel this would lead to different policies arising across those territories. Within a

single Region, experienced Sections can help and give example to inexperienced Sections and we all grow according to common practice. In Paris, we had many guests from USA and they gave tutorials for new R8 Committee members to get experienced faster.

Milestone celebration

The IEEE Milestone Program encourages IEEE units to cooperate with local organisations to honour significant achievements in our profes-

sional field. This is our permanent duty to preserve our history and especially important nowadays when we are trying to increase public awareness of engineering.

In *Region 8 News* September 2005 you read about two milestones. The first event, held in St Petersburg, was dedicated to A S Popov.

The second took place at Vucje hydroelectric plant in South Serbia. On 26 September, Tony Davies represented R8 at an IEEE Milestone

[Continued on page 2]



MELECON 2006

13th IEEE Mediterranean Electrotechnical Conference

Torremolinos, Málaga, Spain

16–19 May 2006



www.melecon2006.etsit.uma.es

IEEE Milestone is dedicated to electronics at CERN

IN GENEVA on 26 September, at a ceremony at CERN (the European Organisation for Nuclear Research), Cleon Anderson, President of the Institute of Electrical and Electronics Engineers (IEEE) formally dedicated a Milestone plaque in recognition of the invention of electronic particle detectors. The plaque was unveiled by Anderson and Georges Charpak, the Nobel-prize winning inventor of wire chamber technology at CERN in 1968.

With the attribution of this IEEE Milestone, CERN finds itself in good company. There are currently over 60 Milestones around the world, awarded to such momentous achievements as the landing of the first transatlantic cable, code breaking Bletchley Park during World War II, and the development of the Japa-



In good company: (left to right) Prof Georges Charpak (Nobel Prize winner), Dr Cleon Anderson (IEEE President), and Prof Carlo Rubbia (Nobel Prize winner).

nese Bullet train, the Tokaido Shinkansen.

Particle physics research was revolutionised in 1968 when Georges Charpak published a paper describing the multi-wire proportional chamber, a forerunner to many of the particle detectors in use at CERN today. This invention paved the way for new discoveries in

particle physics, as underlined by the Swiss secretary of state for Education and Research, Charles Kleiber. "I am delighted that the IEEE has decided to award a key Milestone to CERN for the invention of the multi-wire proportional particle detector by Professor Charpak and his collaborators in 1968," he

[Continued on page 2]

IEEE Milestone is dedicated to electronics at CERN

[Continued from page 1] said. "These developments have led to crucial progress in our understanding of the constituents of nature."

Charpak's invention also made it possible to increase the rate of data collection by a factor of a thousand. The significance of this was underlined by Walter LeCroy, founder of the company that bears his name, who said that Charpak's invention had "transformed the world of the electronics developer". "The advent of electronic particle detectors," he continued, "brought the need to store, transmit and analyse data faster than ever before." Many of the developers working for LeCroy are former particle physicists.

In 1992, Charpak, who had been working at CERN since 1959, received the Nobel Prize in physics for his invention. He has also actively contributed to the use of this new type of detector in various applications in medicine

and biology. The value of fundamental research institutes such as CERN in fostering innovation of this kind was a recurring theme of the ceremony.

"CERN's reputation is based on fundamental research," said the Laboratory's director general, Robert Aymar, "but the organisation is also an important source of new technologies. In our work we need instruments based more and more on electronics, so that a tight collaboration worldwide in this field is beneficial to science. In turn the developments in our science feed back into the equipment in industry and in the end they appear in your home."

Charpak himself also stressed the importance of intellectual freedom, saying of his time at the Laboratory: "CERN was a fantastic place because of the freedom I had, which permitted me to do a lot of things that were unexpected."



Prof Georges Charpak and Dr Cleon Anderson unveil the IEEE Milestone plaques.

Photo © CERN 2005

Unity and Baltic growth strengthen R8

[Continued from page 1] Ceremony at CERN in Geneva (full report below). This celebrated the 1968 invention of the multi-wire proportional chamber which led to the transformation of physics experiments from visual method to fully electronic operation.

New Sections

This year we made a strong start in welcoming Baltic countries into IEEE R8. The Lithuania Section was approved at the June Board of Directors meeting, and at Riga we discussed the possibility of setting up a Latvia Section with the Vice-rector of the University and several IEEE members. In Tampa, a petition from Bosnia and Herzegovina was presented.

Since each country in Europe, Africa and our part of Asia in R8 has its own regulations, we support one Section in each individual state in its efforts to conform to legal conditions and cooperate with all professional activities there.

We currently have 46 Sections, with another 5 to 10 due to be created in the near future. With this level of growth, we will continue to manage a healthy IEEE.

I am very much in favour of experienced and inexperienced Sections meeting together so everyone can develop faster to a common

level in the Region, and the two meetings each year help in this respect. All activities are running at high speed and in our case spread more homogeneously through each year. Cheap air tickets certainly help, and Executive Committee members may be able to find sponsors. We should be able to visit most of our Sections in time.

Visit to Iran

At the time when IEEE is re-establishing its activities in Iran Section, IEEE President-Elect Mike Lightner and I were present at the International Symposium on Telecommunications (IST 2005) in Shiraz, Iran. He spoke about the IEEE as "a Global Community" and I about "Activity and Events in R8". We visited also Sharif University and Tehran University where the Iran Section has been reactivated and its interim officers (Chair J Salehi, Secretary M Nasiri, Treasurer M Hakkak) were elected.

Industrial relations

Two successful meetings were held of the Industrial Relations coordinators: the first in Paris, the second in Cyprus on 10-12 September and attended by 19 persons. The R8 IR Guide Book is now complete and available from the new Region 8 IR Web site: www.ieee.org/r8/irc (click on 'activities').

Engineering day

Egypt Section celebrates this year its 50th Anniversary of IEEE activity. This very respectable achievement was announced at the Paris meeting but the main celebration took place in Cairo on 7 August. I congratulate and thank them for their contribution to IEEE development.

On 8 August, I participated in Egyptian Engineering Day. This was organised mainly by the GOLD committee and has been held for the last four years in a row. This event is a big opportunity to meet new associates and to attract youngsters to our field. For freshly graduated engineers, the event introduces them to the engineering market. It is a national gathering celebrating the engineering profession.

You should have seen the enthusiasm of the young people and the exhibition of more than 120 complex student projects; I enjoyed the performance very much. This is the way how GOLD activity could be developing.

On 8 October, the IEEE East Africa Student Chapter held its sixth annual Engineering Students' Exhibition at the Sarit Centre, 'Making Technology Work for You'. Congratulations to all.

Baldomir Zajc
IEEE Region 8 Director
Professor, University of
Ljubljana, Slovenia

IEEE-SPIE Conference on Photonics Applications – IV

30 August – 2 September 2005, Warsaw, Poland

THE CONFERENCE on Photonics Applications (PA) in Industry and Research was a part of the SPIE Warsaw Congress and was co-organized by the IEEE Poland Section. It was the fourth in the series with proceedings issued by the SPIE.

The PA conference gathered around 100 papers. A few sessions on advanced photonics and electronics systems for the high energy physics experiments (HEP) and astroparticle physics. These sessions were driven by large, international research programs: CARE – Coordinated Accelerator Research in Europe, established by the EU inside the FP6, and Pi-of-the-sky (observations of GRB phenomena around the Globe).

Ryszard S Romaniuk
Chair, IEEE-SPIE Conference on Photonics
Applications in Industry and Research
Warsaw University of Technology
IEEE Poland Section Board





Different aspects of Sections Congress. Left to right: taking refreshments during a session, posing for a group photo, unidentified members sample the seasonal Tampa fashions.

R8 celebrates Sections Congress 2005 in Tampa

THE LONG weekend started on 12 October when Section chairpersons from all over Region 8 travelled to Tampa, Florida, USA to attend the Region 8 Committee meeting, followed by the IEEE Sections Congress 2005.

This is a gathering of Section leadership – a four-day event – involving hundreds of delegates from all 10 world Regions. Christian Borgert,

R8 Secretary, was our coordinator. In addition to the social aspect of such a get-together, the 2005 Congress had a number of serious goals:

- To provide an opportunity for delegates to gain information and training skills
- To network and build relationships with other volunteers within the IEEE
- To serve as a forum for Section representatives and

other local leaders, enabling them to voice (on behalf of the collective membership) ideas, issues and recommendations that impact on the development and growth of IEEE throughout the world, reinforcing its vitality and relevance to those it serves.

For more information on Sections Conference 2005, see www.ieee.org/organizations/rab/sc/2005.



Diagnostics power in force in Vienna

THE FIFTH IEEE Symposium on Diagnostics for Electric Machines, Power Electronics and Drives (SDEMPED 2005) was held in Vienna, Austria, from 7–9 September. The official venue was the Parkhotel Schönbrunn.

The technical program included 60 papers from 24 different countries. This year's plenary session. 'Automotive Applications and Electric Machine Modelling', reflected today's challenge to monitoring and fault diagnostic techniques, since high reliability and the ability to work even during transient operating states are the key indicators of automotive applications.

Christian Kral christian.kral@arsenal.ac.at

Above: Reception at Vienna City Hall. Left: Discussions during the break session.



Hamburg event focuses on mobile comms

THE 10TH International OFDM-Workshop took place in Hamburg, Germany, from 31 August to 1 September 2005.

This is an annual conference on Orthogonal Frequency Division Multiplexing transmission technique. It investigates new results and future techniques for mobile communications.

More than 150 participants from 25 different countries attended. All aspects of multi-carrier transmission techniques were covered, including hardware prototypes, multiple input/multiple output (MIMO) systems and proposals for cellular OFDM system architectures.

In the evening, a city tour of Hamburg was followed by dinner at the historical Coffee Exchange. For more details, go to ofdm.tu-harburg.de.

Join us next year 30-31 Aug 2006! Contact Hermann Rohling or Nico Toender n.toender@tu-harburg.de.

Memories from Tampa

ON 14-17 October 2005, IEEE Sections Congress took place in Tampa, Florida, USA. Having set off from a cold autumnal Turkey. I was pleased to find Tampa was enjoying plenty of hot weather.

Two days before the main event, I attended the Region 8 Membership Activities Committee Meeting, where we discussed membership development, the nurturing of new sections, women in engineering, IEEE life members, and also *Region 8 News*.

I went to the Student Activities Committee Meeting to say "Hi!" to old friends and, of course, make new ones. I was also able to have a quick chat with our Laura, IEEE Student Services Manager.

R8 Committee

The next day, we continued with the formal Region 8 Committee Meeting. This was a platform for discussing further issues, including membership, student activities, and strategic planning. The meeting was attended by the Region 8 section representatives, in some cases comprising two or three people from each section. Everyone grasped the opportunity to meet and mix, and it was an amazing harmony of cultures. The event bode well for future cooperation, networking, sharing knowledge, information update and friendship.

On Friday evening, at the Section Congress opening ceremony, it was amazing to see almost 900 IEEE attendees from all over the world in one place.

The Congress begins

On Saturday morning, we started with Core Training by IEEE Staff for Section Representatives. This training gave all of us the chance to increase our knowledge of existing IEEE entities, recent changes in the organisation, and new opportunities by improving our IEEE leadership skills.

The afternoon and the next day saw a series of Breakout Sessions. There were three main subjects: membership, section operations, and relationships within IEEE entities. Specific session topics included 'Who can be an IEEE member?', student branches, and Section/Chapter/Society relations.

The Section Congress gave the opportunity to section representatives to express their ideas and recommendations which will be used by IEEE Board of Directors to change and improve IEEE for future and will have an impact on the improvement and growth of IEEE.

Peripheral event

Throughout the Section Congress, an IEEE fair was held in a large area outside the conference rooms. This was run by IEEE Staff to introduce section representatives to the various entities and services of the organisation.

Thanks to Marc Apter, IEEE Regional Activities Board Chair, IEEE Staff and the Organising Committee! They gave all of us this chance to come together in such an excellent event.

Basak Yuksel

Some ways to get your voice heard in 2006



DEAR READERS, may I take this opportunity to wish you happiness of the season. You'll read this in December, while the year 2005 quickly ends. A lot of good memories. My personal involvement on two IEEE committees ends – PSPB Publications Services and Products Board and IEEE History Committee. The good news is that Region 8 will still be represented! Tayfun Akgul from Turkey (who draws our cartoons) has been elected to serve a three year term as "member-at-large" on the PSPB. While on IEEE History committee, Hans Schmidt and Pilar Molina-Gaudo will attend from our Region.

I'd like to remind you how important your opinions are in the IEEE. But you have to speak up! Every member can write to the officers of IEEE and to the editors of any IEEE publication and give an opinion.

For example, you may like to write to the editors of *IEEE Spectrum* magazine (which you should all receive) to tell them whether or not

you enjoy reading their features; to say if you receive the magazine on-time/ or late; and to suggest articles. I know as a fact that they also would like to find some regular correspondents in Region 8, but they do not know how! Email *Spectrum's* editor s.hassler@ieee.org with your suggestions.

In the same way, all the staff and volunteers working for IEEE need and welcome your opinions. So please contact them.

In this issue I hope that you will find something of interest. Our Region has some of the best opportunities for member development and for activities... Baldomir Zajc's report tells it from the top, and our many Region, Section and Student volunteers write in these pages their many views.

I welcome ideas for our Photo Quiz, and contributions for some mini tutorials. And, of course, your letters to the editor are always welcome.

Happy New Year!

Roland Saam, Editor

Standards development

THE RESULTS of a 2004 survey of IEEE and IRO/IRC members in Region 8 show that while 75% of respondents use standards in their work, fewer than 10% are involved in standards development.

Thankfully, our Standards Development Online website has all information you need. Go to: standards.ieee.org/resources/development. Here you'll find out about the standards process, how to join IEEE-Standards Association, training material, a standards companion, standards and operation manuals, and FAQs. You can buy IEEE standards electronically.

The Standards for Global

Business Conference, held in Munich on 26–27 September 2005, revealed the essential relevance of global standards in a world of merging markets and technologies, and emerging networks.

The IEEE Standards Association offers 3 products: IEEE standard, IEEE corporate standard, and ISTO specification (the Double Logo Agreement with IEC and its cooperation with ISO and ITU). But there is still a great need for R8 members, especially in industry, to participate more actively in IEEE standards activities.

*Ingo Ruesch
R8 Standards Coordinator
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Bylaws and descriptions of the committee offices — refer to www.ieee.org/r8

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Submitting articles We welcome articles from any member of the IEEE. Submit your articles to the editor as plain text files, or by email to R8News@ieee.org. Please put *R8 News* in your email subject line.

Graphics, photos and images should be high resolution (300dpi). They may be uploaded to the Region 8 website using the file transfer protocol <ftp://ewh.ieee.org/r8>

Deadlines for upcoming issues

March 2006 issue 1 January 2006
June 2006 issue 1 April 2006
September 2006 issue 1 July 2006
December 2006 issue 1 October 2006

GOLD forms more AGs

I AM very happy to report that six new GOLD affinity groups have been formed since our last R8 meeting in Paris (congratulations to Croatia, Czechoslovakia, Finland, Jordan, Saudi Arabia-East and Siberia). R8 has now a total of 15 GOLD AGs, although this is still a small number in comparison to our large region with its 48 sections.

Many GOLD activities were organised during 2005. These included technical and professional lectures, conferences, the GOLD congress, and social events held jointly with the Sections, Chapters and Student Branches.

I want to establish an R8 GOLD Team, whose members will help Section chairs and GOLD members in their neighbourhood to get started with GOLD activities.

Many thanks for your help and best regards,

Rolf Remshardt
R8 GOLD Coordinator
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ECSA's du Toit Grobler speaks in Pretoria.



After the lecture: Grobler with Albert Chittenden (left) and Johan Pienaar (right).

du Toit Grobler delivers talk on 'professional gateways'

ON 3 August 2005, the South Africa GOLD affinity group hosted a meeting at the University of Pretoria, attended by over 50 people, including IEEE GOLD and student members.

The speaker, du Toit Grobler of the Engineering Council of South Africa (ECSA), delivered a talk on 'Registration – Your Gateway to a Professional Engineering Future'. One of ECSA's roles is to assess candidates' qualifications and experience to become a professional engineer. This topic is of particular interest to GOLD members, who may

have the right qualifications but may also lack the necessary industry experience to be able to register as a professional.

Two important aspects were mentioned numerous times: the positive effect of mentorship on the development of young engineers, and the importance of continuing professional development (CPD). Some examples of CPD include attending short courses and conferences.

The session was concluded by a lively question and answer session, where Grobler, assisted by Johan

Pienaar (the head of ECSA's registration committee), responded to the numerous questions and comments of the audience. Everybody then had the opportunity to enjoy tea, coffee and light refreshments while continuing the discussion in the entertainment area.

The GOLD affinity group acknowledges the support from the University of Pretoria's IEEE Student Branch in organising this event.

Albert Chittenden
GOLD Chair
South Africa Section
albert.chittenden@ieee.org

Turkey plans Congress

IEEE TURKEY Section GOLD group has organised six activities in four different cities since it was founded in April 2002.

Initially we held two GOLD orientation seminars where general aims of IEEE GOLD groups were identified. Then, we hosted two technical meetings in the field of IEEE technologies.

We met in Ankara to plan our future GOLD group activities. We then met at Bogazici University, Istanbul, on 22 June this year to define a roadmap for IEEE Turkey GOLD group. IEEE members from 10 organisations in Turkey attended.

We plan to hold an annual IEEE Turkish GOLD Congress which will be run alongside the IEEE Turkish Student Branch Congress next year.

Cenk ATLIG
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The secrets behind WILGA Symposium success

IN POLAND the IEEE together with SPIE organises the national research community of photonics, web technologies and electronics for high energy physics. The WILGA Symposium is held twice each year gathering young researchers, MSc and PhD students, as well as their tutors. Many of them are IEEE student or GOLD members, or SPIE members.

This year, the 16th Symposium, lasted a whole week from 30 May – 5 June 2005, and gathered 260 presentations and over 300 participants. The symposium publishes its work (each year more than 100 papers) in the Proceedings of SPIE, The International Society for Optical Engineering.

I have often been asked how we go about organising such an event from scratch. Here's how we do it.

Presentation rules

Presentations must be brief, only English is accepted, and you can only present your own research, although the work has to be preliminarily accepted by the student's tutor. There are no parallel sessions. All papers are reviewed and about half are published in The Proceedings.

Work in the newest branches of the science and technology are preferred. Topical sessions are devoted to the most current research directions.

Cost of attending

WILGA benefits from sponsorship by professional associations such as IEEE and SPIE, international institutions such as CERN (Geneva) and DESY (Hamburg), and by leading Polish institutions. This helps attract participants from all over Poland and abroad. Im-



portantly, WILGA is cheap and convenient to attend. There is no conference fee, and food and accommodation are inexpensive.

Sessions last from early in the morning until late at night. An 'after supper' night session lasts until 10pm, followed by a barbecue.

WILGA Symposiums are the voluntary work of the organisers and participants. The core of the work is done by the PERG/ELHEP ISE WUT Laboratory members

and IEEE student branch members.

WILGA is organised entirely by electronic media: there are no paper invitations. Visit our web site wilga.ise.pw.edu.pl or email us at photonics@ise.pw.edu.pl.

WILGA organisation

WILGA has no permanent structure. The Program Committee is created exclusively during the Symposium, only from current WILGA senior researchers and tutors.

Part of the learning process is the eagerness to get acquainted with other young researchers, and the willingness to participate in a real scientific symposium.

The next IEEE-SPIE WILGA Symposium 2006 will be held from 29 May – 4 June 2006, the week after the National Microwave Conference MIKON. Please join us!

Ryszard S. Romaniuk
WILGA Symposium Chair
Warsaw University of Technology



• Region 8 SAC Web site: www.ieee.org/r8sac
 • Region 8 Students Virtual Community: www.ieee.comunities.org/region8sf.
 Enjoy your IEEE!
Başak Yüksel
 R8 Student News Editor

HI EVERYBODY and welcome to a new issue of *R8 Student News*! Let me introduce this edition with the following quote from Confucius touching IEEE volunteerism:

"Wheresoever you go, go with all your heart."

Volunteering means enjoying ourselves while acting with all our heart. Most of us encounter IEEE in student branches, and after tasting IEEE volunteerism and having fun in the activities, we are becoming addicted to it.

IEEE continues to co-operate with other organisations. For example, we have an agreement with the Electrical Engineering Students' European association (EESTEC), an organisation for electrical engineering students from universities, institutes and schools of technology in Europe that award an engineering degree. We have been working with EESTEC for some years and arranging joint activities to encourage the exchange and dissemination of technical information,

and to promote understanding and co-operation between our respective members. We regularly organise joint activities such as international congresses, and arrange technical meetings and the exchange of publications.

Over the past months, a large number of IEEE activities have been taking place around the world, and especially in Region 8. You will find out more about these over the next few pages.

You can participate too by sharing your own experience in the Student News pages, and by asking questions of IEEE to discover what else it can offer. Don't forget, if you don't ask, you don't get.

Finally, here's a quick reminder of some important IEEE information Web links:
 • Region 8 Students E-Mail List: to subscribe to the list, send an email to listserv@listserv.ieee.org with SUBSCRIBE R8STUDENTS in the body of the message.

R8 student activities update

ANOTHER YEAR comes to an end and it is with great pride that I share with you some great news. Indeed, everyone involved with student activities in Region 8 has a lot to be proud of. In 2005 alone, we saw the launch of over 25 new student branches, branch chapters and affinity groups, while our membership numbers went right through the roof, hitting the all-time high.

If you have been following the articles in the student pages of *Region 8 News*, you may also have noticed that the amount of activity in our student branches has grown. Of course, to report on every interesting student event would take at least 20 more pages in every issue.

We expect this trend to continue next year. The highlight for student activities in 2006 will certainly be



Can't wait to meet again in Paris: (L to R) Marko, Basak, Aleksandar, Pilar and Damir at SBC2004 in Passau.

the IEEE Region 8 Student Branch Congress: four days full of networking, workshops, information exchange, partying and fun from 31 August to 3 September in Paris. For more information about the event and activities, and also on how to represent your student branch at this incredible event, please see www.ieee.org/r8sac.

For those of you who graduated this year, please keep in touch with your student branch and join your

local GOLD group. Don't forget, you can claim a 50% discount from your first year of



It's not just work work work. We occasionally pose for a photo: (L to R) Michael, Ricardo and Marko in Zagreb.

non-student IEEE membership. If you plan to continue your studies further, you can remain a graduate student member.

Please also note that if you have not yet renewed your membership, there is still time to do so. Remember to tell your friends about your experiences with the IEEE and encourage them to join.

Have a great year! Till next issue...

Marko Delimar
 R8 Student Activities Chair
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American University in Dubai:

First student branch at AUD

IEEE HAS arrived on campus at the American University in Dubai (AUD) with the launch of its IEEE Student Branch.

The new Branch has already scheduled plenty of academic, social and entertaining events for this year, open to all engineering majors. These include:

- Field trips to different companies and work locations.
- A study trip to Europe to be announced.
- Competitions for technical designs and projects.
- Sending students to regional and international conferences.
- Hosting people from the industry to talk about different issues.
- Participating in the AUD's different social events.

Mohamed Ayoub

Institute of Management and Technology, Enugu, Nigeria:

Rapid growth and IEEE day make 2004/2005 the best year ever

IEEE ENUGU Management and Technology (IMT) Student Branch was registered in the year 2002 as the first of its kind at a Nigerian polytechnic, and was awarded the 'most active Student Branch' by the Nigeria Section.

The 2004/2005 academic year witnessed incredible growth and active participation in IEEE activities both at the Student Branch and



Student members gather for the IEEE Day in June.

Nigeria Section level. We set up Standing Committees to help in building a strong and dynamic student branch: Publicity Committee, Membership Committee, Planning

Committee and the WIE Affinity group. We organised career counselling seminars, technical paper presentations and a GSM Repairs and Maintenance Workshop. An IEEE

information centre was set up to provide students with access to what is happening in the Student Branch, the Nigeria Section and around the world.

The first IEEE day took place on 30 June 2005 during the Society of Electrical and Electronics Engineers (SEES) Week. The main theme of the event was 'The Advancement of Nigeria Tech-

nology'. The students were motivated and had a chance to meet professionals in the industry, experiencing a high level of networking previously unheard of at the Institute.

This in turn led to a surge in membership as students woke up to the benefits in joining IEEE.

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**Federal University
of Technology
Owerri, Nigeria:**

Student speaks at conference

MY NAME is Udochukwu Akunna. I am a student in the Federal University of Technology Owerri (FUTO) and an IEEE student member from Nigeria Section.

In July, I attended the 'Inaugural 2005 Conference and Exposition in Africa'. The conference was hosted by the IEEE PES in association with the Southern African Power Pool and the university of KwaZulu- Natal.

It was a big task to combine research with regular academic work, but I gathered a great deal of information from industry and the IEEE. I was especially impressed with the quality of data I received from IEEE resources. Having concluded my modelling and simulation designs, I put my findings into a paper and again used IEEE resources to search for an appropriate conference at which I could present it. My paper gained conference approvals and the very first to come was PESTURBAN 2005.

After my presentation, I was able to apply for international intellectual property protection of my novel design, something I had always dreamed about. I believe that it was really great to have an opportunity to meet people with common interest, to exchange ideas and opinions, and to broaden the scope of my knowledge.

I would like to express my appreciation and gratitude to the organisers and the program committees for the efficient running of the conference.

Udochukwu Akunna

University of Belgrade, Serbia:

Belgrade's MiniDrive team wins International Future Energy Challenge at Chicago finals

THE INTERNATIONAL Future Energy Challenge (IFEC) is a bi-annual competition of electrical engineering faculties, organised by the IEEE. The topic of the 2005 competition was to design a single-phase adjustable speed motor drive, with superior characteristics concerning the efficiency, speed regulation and cost of the drive compared to those currently available on the market. The resulting product should replace drives in home appliances (e.g. washing machines or refrigerators), pumps, HVAC systems and similar applications.

The Laboratory for Digital Control of Electrical Drives (LDCED) at the Faculty of Electrical Engineering in Belgrade sent a project proposal to the organiser. Once this was accepted, the MiniDrive Team of the University of Belgrade was founded.

All the engineering work on the project was performed by undergraduate students from the Electronics, Automation and Control and Power Engineering departments of the Faculty. After the third progress report we sent in May 2005, we received a notification stating that we were one of three teams to have made it all the way to the August finals, to be held in Chicago, USA.

We embarked on a strong media campaign which drew attention to our project from some very large companies and organisations including the Ministry of Mining and Energy, the Ministry of Science, the American Embassy in Belgrade, ABB, Siemens, Sever and Centrala. We also owe grateful thanks to the Ministry for Diaspora, our consulate in Chicago, and the Serbian community in Chicago who provided us with accommodation during our stay there.

The Serbian television channel in Chicago, TV4S, followed us throughout the finals. As well as our great engineering success, we were the only team with TV coverage.

The MiniDrive team consisted of 10 persons, being the largest delegation at the finals in Chicago, even though our opponents were from American universities. We made a very strong impression on the judges and the opposing teams because of the excellent organisation



After the awards, the winning team poses for photographers.

and great enthusiasm we showed during the three-day finals.

As far as Chicago is concerned, it is an amazing city. None of us had ever been to the USA before, so the experience we gained through this project apart from great engineering practice is really indescribable.

All the hard work paid off: the MiniDrive team won first place overall. Additionally, we were awarded prizes for Outstanding Presentation and Outstanding Technical Report.

For all those who want to get more information about the project, team organisation or future plans, please visit www.md.etf.bg.ac.yu.

*Blagoje Ušćumlić
Nikola Milivojević*

Wroclaw University of Technology, Poland:

Polish scientists visit workshop in Dresden

ON 6-9 July 2005, a group of students and young scientists from IEEE Wroclaw University of Technology (WrUT) Student Branch was visiting Dresden, the charming capital city of Saxony, Germany. The main reason for this excursion was 2005 International Students and Young Scientists Workshop 'Photonics and Microsystems'.

The Workshop is a fine example of a scientific event (indeed, an official IEEE conference) being organised by people from different countries: the Electronics Packaging Laboratory (Dresden University of Technology), Students Scientific Association 'Optoelectronics and Microsystems' (Wroclaw University of Technology), and IEEE WrUT Student Branch.



Attendees at the Photonics and Microsystems workshop.

After the ceremonial opening, participants listened to invited guests who spoke on current issues of photonics, optoelectronics and microsystems.

During the Workshop, 25 presentations were delivered in five sessions in various fields of photonics: Optoelectronic Materials and Devices, Terahertz Photonics, Optoe-

lectronic Interconnects and Packaging, Optical Metrology and Reliability in Electronic Packaging, Fibre Optics and Fibre Components.

For some students, this was the first time to present their research on an international level, to interchange experience and to establish co-operation with other scientific centres. All presentations

were of a high scientific level. That's why one can hope that participation in the Workshop will enable dynamic development and promotion of young scientists.

After the technical sessions, professors and students dined together in the centre of Dresden. At the end of the Workshop, everybody took part in a lab tour and barbecue at the Faculty's pond.

A great atmosphere and beautiful views of Dresden made the event special for everyone. More details can be found on the Workshop Web site: www.avt.et.tu-dresden.de/photonicworkshop2005.

*Agnieszka Borkowska
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Bogazici University, Turkey:

Industry giants sponsor conference

IEEE STUDENT Branches Congress'05 – Bogazici University has been held for the third time in Turkey, leaving an amazing and memorable impression on participants from all over the country. The conference was sponsored by three huge companies: IBM, Microsoft and Koc.

150 students from 27 different universities took advantage of the opportunity to get to know each other, develop and enjoy themselves over five days. The content of the congress was enriched by the performance of Dr Kurt Richter with his 'Leadership Workshop', assisted by IEEE



The event attracted 150 students from across Turkey.

R8 Student News Editor, Basak Yuksel, and by the participation of Microsoft EMEA's Student Consultant, Lovelda Smith.

Besides the meetings and seminars, attendees made

outings to visit various historical sites in Istanbul. The event was a great success and will be remembered for a long time.

*Aysenur Bilgin
IEEE Bogazici University SB*

Obafemi Awolowo University, Nigeria:

Campaign promotes computing in schools

AN IEEE/NATIONAL Youth Service Corps member in Nigeria, Adegbege Ambrose Adebayo, has embarked upon a series of talks and workshops in post-primary schools in Ilorin, Kwara State of Nigeria, as part of his community development service. The aim is to encourage the teaching of science-related subjects and the deployment of Information and Communication Technology (ICT) in the educational curriculum.

One such workshop, 'ICT: A Veritable Tool in Education', was held on 6 July 2005.

Several career talks were also conducted at a number of schools to encourage science students to consider a career in engineering. A team of the Nigerian Society of Engineers (NSE), Kwara State Chapter, followed suit by highlighting the importance of a good science background.

This is a welcome development, but more should be done to encourage women enrolment in engineering at university level.

*Adegbege Ambrose Adebayo
Ex-Chair OAU/SB, Nigeria
amby@ieee.org*

Robotics competition update

THE IEEE Region 8 Student Robotics Competition (R8 SRC) has been postponed. The main reason was that not enough teams were participating. We still think a robotics competition in Region 8 should take place, however, and we will soon be advertising our new plans. These include:

- lectures on robotics
- GOLD workshops
- a city trip to the Netherlands
- social events
- the Robotics Competition itself!

The preliminary date for the new event is 12–15 May 2006.

Any IEEE student member from Region 8 or otherwise that is interested can take part, but we are mainly focusing on Region 8 students and GOLD members.

For more information, please go to: www.ieee.utwente.nl/robotics

*Stefan Henzen
R8 SRC Organising
Team Chair*

Arab Academy for Science & Technology, Alexandria, Egypt:

Student awareness venture targets careers

THE IEEE Arab Academy for Science & Technology (AAST) Student Branch kicked off the new academic year with a Student Professional Awareness Venture (SPAV) entitled 'Leading Your Career, Leading Your Society'. This event, held on 10–18 September 2005, provided young graduates and senior students with the information and guidance they need to be effective contributors to their society through educational institutions, government agencies and corporations.

A prerequisite to meet this end is, of course, professional awareness, which was the major theme of the conference. We were fortunate to have the support of the R8 Student Activities Committee, Kurt Richter (Leadership Workshop Coordinator and Trainer), and Nikola Milivojevic who presented a set of excellent, interactive workshops during the SPAV.



Left: Open discussion during the workshops with Nikola Milivojevic.

Below: The participants visiting the booths.

Bottom left: Nikola visits the Alexandria coast.

Bottom right: The SPAV Organization Team at the Bibliotheca Alexandrina.

The nine-day event was divided into 3 phases:

- Awareness of opportunities after graduation & technology trends
- Development of professional awareness skills
- Job fair and exhibition

We invited company representatives to the job fair at the end, specifically to talk to our students about the work and training opportunities available to them.

We are grateful to Prof Dr Yosry El-Gamal, Vice President for Education-AAST, for



his invaluable support before, during and after the event. Our special thanks also go to Dr Mohamed El-Faham, Director of the CSSP-Bibliotheca Alexandrina, and to everyone in the co-operative team at Alexandria Library.

The success of this event would not have been possible without the sponsorship provided by the IEEE R8 SAC, the Club D'affaires Franco-Egyptien and Scopeworld.

This SPAV is planned to be held at least once annually. We hope soon to see an even more regional/international SPAV with several branches cooperating together.

*Amr N Atta, Mahmoud Kassem, Saleem Hattab, Tarek Fawzi
AAST IEEE Student Branch
www.ieee-aast.org*



Lasers & Electro Optics Society, Benelux:

Latest LEOS chapter seeks out the PhD students in Benelux

THE STUDENT Chapter from the IEEE Lasers & Electro Optics Society (LEOS) Benelux was founded in October 2004 as the fourth LEOS Student Chapter globally. The chapter has board members from several universities throughout the three Be-Ne-Lux countries: Belgium, The Netherlands and Luxembourg.

The members of the board are all pursuing PhD at their university in the field of LEOS. The LEOS has its field of interest in lasers, optical devices, optical fibres, and associated lightwave technology and their applications in systems and subsystems in which quantum electronic devices are key elements (www.i-leos.org). The board is still looking for members from the other universities in the Benelux working in the field of LEOS.

Setting up the branch

Before the establishment of the Student Chapter, all the LEOS activities related to students had been organised by the IEEE LEOS Benelux Chapter Board, especially by its two student members.

Since this was not an ideal situation in terms of visibility and manpower, the two student members of that

time, Marc Sciamanna and Douwe Geuzebroek, initiated a call for participation for a separate Student Chapter that could organise all the student activities in the field of LEOS in Benelux. This call was granted in October 2004 and the board was established one month later.

Chapter goals

The aim of the IEEE LEOS Benelux Student Chapter is to achieve a better acquaintance, both formally and informally, of the PhD students working in the field of LEOS within Benelux. The following activities are being organised by the Student Chapter:

- Annual LEOS Benelux Workshop
- Company Visits
- Informal get-togethers
- Assisting Organisation of Annual LEOS Benelux Symposium
- Website
- More to come...

LEOS workshop

One such activity that we have already completed is the Annual LEOS Benelux Workshop. This is a one-day event with a specific topic in the field of LEOS. One or two invited speakers and five to eight contributed speakers.

general. Our IEEE Student Branch is involved too, with its 'Knowledge for Everyone, Technology for Everybody' campaign.

These issues were pursued after the conference ended, the event having promoted the Student Branch's role in spreading knowledge and technology to everyone. Free introductory courses in Linux and Unix were provided to around 30 students.



Above: IEEE Padova SB students get together with Leuven SB students.

Right: Visiting the Interuniversity MicroElectronics Centre.



Padova University, Italy:

Padova Student Branch visits Leuven colleagues in Belgium

ON 27–28 September, the Student Branch of Padova was the guest of our colleagues from the Student Branch of Leuven, Belgium.

On the first day, we visited IMEC (Interuniversity MicroElectronics Centre). We had an exciting tour through the nanotechnology, microelectronics and wireless R&D centre, the most important of its kind in Europe.

We also took the opportunity to exchange important tips about organising branch activities and management. In Leuven, there are a lot of 'collateral' activities, such as the 'Women In Engineering' (WIE) film night and cocktail party.

That night, we went with the Leuven chairman to visit the Oude Markt square in the city centre, enjoying the student Belgian spirit:

meeting other people, talking with them, and of course drinking Belgian beer.

The day after, we took a cultural tour of the city and, after lunch, a technical tour of the InBev brewery. We saw the three main phases occurring in the beer production: the cooking, the fermentation and the bottling.

The SB Padova would like to thank the SB Leuven staff for their hospitality, their kindness and for letting Padova SB members learn about and join in the 'student Belgian spirit' a little. It was a really great experience that we recommend to other branches.

We hope to see branches hosting others here in Italy.

IEEE Padova University Student Branch
ieeesb@dei.unipd.it

In 2005, the workshop was held on 20 May at the University of Technology in Eindhoven with the topic: 'Lasing and amplification in solid state materials'. The

Student Chapter Board introduced a new concept of inviting two speakers, a 'senior' and a 'junior', from outside the organisation. The 'junior' slot is a useful opportunity to let people speak who have only recently become active in the field. Typically, the 'junior' invited speaker is a LEOS PhD student residing in Benelux, while the 'senior' invited speaker is an already-distinguished lecturer.

More information, including the workshop papers and presentations, can be found at www.leosbenelux.org/workshop.

Future plans

One of our planned future activities is an informal activity prior to the annual LEOS Benelux Symposium. As the symposium welcomes a lot of

PhD students from all universities in the Benelux area, all working in the field of the LEOS, the Student Board is organising an informal get-together prior to the main event. More information can be found at: www.leosbenelux.org/symposium.

The current board of the LEOS Benelux Student Chapter has many plans to meet the goals of the chapter. Hopefully, with the help of all our volunteers, we can make the Chapter an active one, organising all kinds of interesting events. The first year shows a good start. For more information about IEEE LEOS Student Branch Chapter, please visit our website: www.leosbenelux.org/student.

Douwe Geuzebroek
Chairman

Hashemite University, Jordan:

Open-source fans head for Linux event

THE IEEE Hashemite University Student Branch, with the Jordanian Linux Users Group (JOLUG), staged a Linux event to free and open source-minded students on 11 August.

The conference drew a large audience and very high ratings among students and instructors, as well as speakers who appreciate the Open Source movement in The Hashemite University in



Kefah Esa's session.



Sun's Looking Glass 3D project session.

Alexandria University, Egypt:

Student Branch membership soars during 2005

THE IEEE Alexandria University Student Branch has witnessed an exponential increase in the number of active subscriptions this year, reaching a total of 384 student members, of which 245 members are new.

This represents an incredible 176% increase in student membership over the 2004 figure, which was an already impressive 139. The statistics reveal the general understanding among students that IEEE is the best provider of technical and social activities.

Acting upon feedback from existing members, we organised an electronics course fair at which IEEE members who attended the previous year's electronics course exhibited their circuits and demonstrated their experience with the IEEE. Another promotional tool was a series of small activities, such as single-topic seminars, that we conducted throughout the year, all of which were well-attended.



Attendees pack the hall during a session at the Robotics Workshop, held this summer.

The Alexandria Student Branch Publications Committee, founded in the summer of 2004, published activity reports and an IEEE wall magazine, aiming to reflect the benefits of the IEEE to student members.

Summer activities

During the summer, we were involved in a whole series of events, including:

- Technical IT career seminar, held in and given by New Horizons – Computer Teaching Centre, Alexandria.

- An annual electronics course with over 200 participants. The main aim of the course was to increase the students' practical electronics skills especially in microcontrollers, and develop non-technical skills such as teamwork, leadership and

communication skills.

- Seven study groups took place over the summer: AVR, Microcontrollers, Robotics, Graphics, Computer Maintenance, Web Design, C Programming and Microwave.
- Advanced Electronics Course on higher electronic



Alexandria Student Branch active members.

applications, including RF, DTMF, I2C and other technologies.

- A Trip to Bahgat's IT Factories on 13 July.
- Robotics Workshop, jointly organised by the IEEE Alexandria Student Branch and IEEE AAST Student Branch.
- A trip to the Egyptian Engineering Day 2005, organised by IEEE Alexandria Student Branch and including 150 students' participation.
- A Visual Basic and Matlab Course that was held in the collage laboratories from the 24 July to 1 September.

In summary, the IEEE Alexandria Student Branch has come to the end of its startup phase, and is now concentrating on maintaining continuity and conserving its role in student life.

The next step is to build further on this success, fulfilling the needs of student members through new achievements, and through even greater creativity.

Ahmed E Harfoush
alexsb@ieee.org

Student Branch Congress 2006 registrations

Paris, 31 August – 3 September 2006

The biggest student event of Region 8 is once again waiting for you: during four days, Region 8 students will meet in Paris for workshops, training, networking and fun. The Student Branch Congress is a unique opportunity for student branch volunteers to learn more about IEEE and to get in contact with other IEEE members from all over the world.

Registration for the Student Branch Congress 2006 will open on 31 January, so watch out for more news about this great event in the future. For more information on funding and registration, go to www.ieee.org/sbc2006.

Scientific literacy quiz

WHAT IS the difference between saying "the risk is high" and "the risk is 85%" (guess vs prediction)?

Speaking with numbers signifies computations/calculations. Making calculations/computations means (mathematical or not) using specific models. Using models implies many assumptions, approximations, general rules (relations), etc.

It is no surprise that understanding the meanings of numbers necessitates scientific literacy in society.

Any conversation, TV or radio news, or public announcement today can have scientific or technological content. Progress in science, followed by fast changes in technology, have revolutionised life styles in

modern society, from communication to marketing, education to medicine. But without scientific literacy, it is difficult to distinguish a scientific explanation from an absurd statement.

Critical skills

Here are some useful critical response skills:

- Have all the information before reaching a decision.
- Clearly indicate all assumptions of your statements and claims.
- The results shall logically be obtained from the evidence you present.
- Use the right object/subject when you make a comparison.
- Do not use indefinite or uncertain phrases like "science tells us ...".

- Remember there is always a control group against the test group.
- Do not forget the intersection when using groups like "young people", "white people".
- Keep in mind the difference between error and uncertainty.
- Declare the accuracy, resolution and precision of your data.
- Do not present your results and explanations as if there were no others.
- Give and analyze data that does not fit into the others.
- Do not depend on the data lingering at the edge or boundary of your measurement or record.

Levent Sevgi
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Dogus University, Istanbul

Answer these questions...

- What is wrong with presenting 189 patients out of 550 total as 34.36%?
- Measuring one Volt with 0.2% accuracy requires a 4-digit digital voltmeter capable of displaying 3 decimal places. Is this true? Why?
- Can you say which country reserves more R&D money in 2005 if I say "Turkey increases its R&D budget 50% in 2005 while the increase is 5% in Germany"? Why?

Win a Skype Internet VolP Starter Kit! Email your answers to r8news@ieee.org with the subject 'Literacy Quiz Dec'.

Singh lectures at the 'Old Cinema'

AUTHOR AND broadcaster Simon Singh gave a lecture on the theory of the Big Bang. Simon is a PhD in Particle Physics (Cambridge and CERN) who trained as a mathematician at Imperial College, and now broadcasts popular series on TV and radio. Check out www.simon-singh.net and listen to an MP3 of his talk.



More than 200 persons attended the annual lecture of the IEEE United Kingdom and Republic of Ireland Section. The event was held in the historic Old Cinema theatre which belongs to University of Westminster, Regent Street London campus.

agement Accountants, as the first of several joint meetings, to explore general technical and management topics. CIMA is the professional organisation for business accountants and managers (www.cimaglobal.com). Joint meetings with topics of mutual interest on engineering project management, business development, and social implications of technology are planned for 2006.

More than 200 persons attended the annual lecture of the IEEE United Kingdom and Republic of Ireland Section. The event was held in the historic Old Cinema theatre which belongs to University of Westminster, Regent Street London campus.

All our meetings are free and open to the public. We publicised the meeting in cooperation with CIMA, The Chartered Institute of Man-

Contact s.mcloone@ieee.org and visit our website www.ieee.org.uk.



Left to right: Roland Saam, Ediz Cetin, Simon Singh, 'Jay' Jauaram, Gordon Dodds.

September photo quiz answers

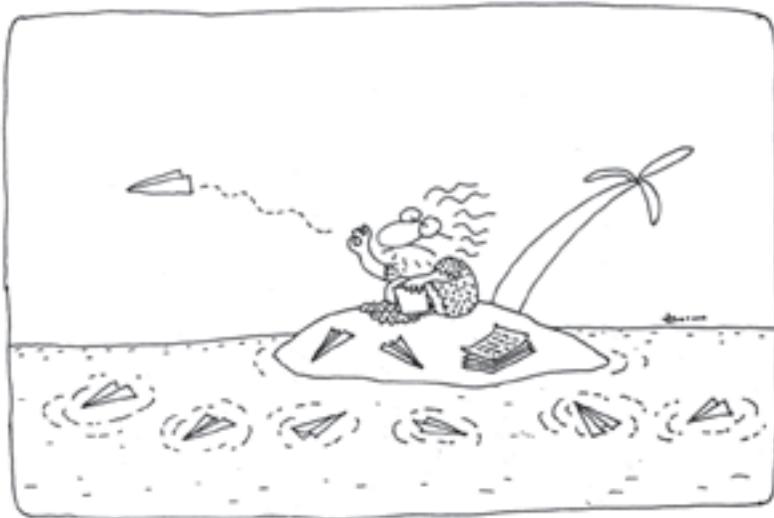


What was that odd object we found in the Popov museum? Robert Rieger (left) sent us the best entry, given below.



- The object on the left shows the transmitter. The metal rod shown is connected to a charged capacitor inside the wooden box. A discharge spark is initiated by approaching the metal bar with the grounded sphere. The high frequency current waves thus produced are radiated off the rod.
- The signal is captured by the coherer, shown in the right hand object. A drop in the resistance across the electrodes of the coherer indicates that a signal has been received.
- The coherer, based on a device developed by the French scientist Edouard Branly, consists of a glass tube with metal electrodes on either end. The tube contains metal fillings, which initially form a high resistance between the electrodes. If a radio pulse strikes the coherer, the fillings cling together ('cohere'), which causes its resistance to drop.

Robert wins a Skype Starter kit. He writes: "I received the PhD degree at the University College London, UK, in 2004. At present I am working as a design engineer with Austriamicrosystems Switzerland AG. Early next year I plan to relocate to Asia to further pursue my research interests in biomedical electronics."



Cartoon © Taylor August 2005

OPINION Counting the real cost of telecommunications

RECENT YEARS have given rise to buzz-words connected with telecommunications, such as 'universal access', 'global information infrastructure (GII)', and 'the information super highway'.

This new world of communications technology was meant to reduce costs to the user; to encourage wide selection of service providers; to cut down monopolies; and to promote services to distant parts of the world. The expected benefits included reducing the information glut and gaining greater efficiency in our work.

But what happened? Telecomms costs have increased as a percentage of income. Oligopolies have replaced monopolies. Some countries now have fewer services due to 'cream-skimming'.

Take the US as an example. It was the motivator for de-regulation. It has great influence through the World Trade Organization by the US Federal Communications Commission (the US version of Ministry of Communications). But today the US has fewer viable telecommunication service providers than after the initial deregulation and break up of the AT&T monopoly.



The 'Resources' article in IEEE Spectrum Feb 2004.

Here's a typical monthly bill in the US for a consumer/user's average telecomms services: telephone (local/long distance/international) \$55, cell phone \$40, cable \$40, and Internet dial-up \$20. These monthly service fees add up to \$155. Sometimes there are costs for equipment (up to \$1,000). With added features, more typical bills are \$200-\$300 per month.

Spending on telecomms therefore accounts for 5-10% of the US median after-tax income (in 2004, \$37,000 per year). Some of the most populated countries of the world, and poor regions of the US, have very low incomes and very low purchas-

ing power per capita, and cannot afford telecomms.

In developed countries we seem to believe that the whole world has access to the internet, cable TV, telephone and mobile phones. This is not the case. An article, 'Resources: A World Divided by a Common Internet' (IEEE Spectrum Feb 2004), explains the realities with the ITU Digital Access Index. For example, in Nigeria a year of internet access costs more than three-and-a-half times the average Nigerian's annual income (in 2002, \$290).

I believe that unless there is a change in the worldwide regulatory environment, oligopolies will increase. More people will be under-served, and our new technologies will not reach the poor. A new type of price fixing will prevail due to the lack of real competition as more mergers and acquisitions occur.

Can the real cost of telecomms be measured? What do we lose by government policies failing to support affordable telecomms services? How much of our technology has changed from a 'want' to a need? Let me know.

George J. Lissandrello
Life Senior Member
GeorgeLiss@aol.com

OPINION is a new occasional column in R&N where we invite readers to voice their concerns on issues that matter to IEEE members. Opinions expressed are those of the author and not necessarily of the IEEE or the editor of R&N.

Region report round-up

New Lithuania Section

An IEEE Section for Lithuania has been founded and was represented at the R8 Committee meeting in Tampa, Florida. Steps are now under way to try to form new Sections in Latvia and Estonia.

Iran Section restored

After two years of detailed negotiation, the Iran Section has been successfully re-instated. There are still restrictions on

what IEEE is allowed to support in Iran, but the IEEE President-Elect and the R8 Director recently made highly appreciated visit.

Greece Section

The annual meeting of the Greek IEEE Section took place at the National Technical University of Athens (NTUA) in April, and was addressed by the newly elected Greece Section Chair, N.

Hatziargyriou. The event included a lecture by John Lonnades of the University of Athens on 'Next Generation Digital Libraries'.

EMBS student paper

Rudolf Sidler of the University of Bern, Switzerland, came second in the Engineering in Medicine & Biology (EMBS) student paper competition with his submission on 'Computer-assisted Ankle Joint Arthroplasty Using Bio-engineered Autografts'. The

EMBS representatives in Region 8 are: Ahmed Morsy (amorsy@ieee.org), Christopher James (c.j.james@ieee.org), Laura Roa (laura@esi.us.es) and Christian Roux (c.roux@ieee.org).

50 years in Israel

The Israel Section celebrated its 50th anniversary with the dedication of an IEEE Milestone honouring the Lempel-Ziv Algorithm. Work is under way towards a second Milestone for WEIZAC – the first

digital computer built and operated in the Middle East (in 1956).

IDAACS 2005

The third IEEE International Workshop on 'Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications' took place in Sofia, Bulgaria, on 5–7 September 2005. See <http://umcs.maine.edu/~idaacs> for details. The next symposium will take place in East Europe.

Reminder calendar Workshops, conferences & symposia in Region 8

DECEMBER

ICICT 2005

ITI Third International Conference Information and Communication Technology – Enabling Technologies for the New Knowledge Society
Cairo, Egypt
5–6 December 2005
www.icict.gov.eg

EUC2005

2005 IFIP International Conference on Embedded and Ubiquitous Computing
Nagasaki, Japan
6–9 December 2005
euc05.euc-conference.org

5th IEEE International Symposium

Signal Processing and Information Technology
Athens, Greece
18–21 December 2005
www.isspit.org/isspit/2005

FEBRUARY

Biomechanics

Pisa, Italy
20–22 February 2006
www.biorob2006.org

MARCH

4th Karlsruhe Workshop on Software Radios

Karlsruhe, Germany
22–23 March 2006
www.int.uni-karlsruhe.de

Note to Organizers

The Editor receives hundreds of notices about conferences. Only IEEE co-sponsored conference/workshop in Region 8 are eligible for free publicity here. Send details as a plain text message to r8news@ieee.org, putting R8 News CALENDAR in your subject line and using the format used here.

AMC'06

9th International Workshop, Advanced Motion Control
Istanbul, Turkey
27–29 March 2006
fens.sabanciuniv.edu/amc06

APRIL

EDERS-2006

Digital Signal Processing Education and Research Symposium
Munich, Germany
4 April 2006
j.soraghan@eee.strath.ac.uk

AINA 2006

IEEE 20th International Conference, Advanced Information Networking & Applications, SNDS-06 Workshop, Security in Networks & Distributed Systems
Vienna University of Technology, Austria
18–20 April 2006
www.comp.polyu.edu.hk/SNDS06

IMCL2006

1st International Conference, Interactive Mobile & Computer Aided Learning
Amman, Jordan
19–21 April 2006
www.imcl-conference.org

MAY

MELECON 2006

13th IEEE Mediterranean Electrotechnical Conference
Torremolinos, Málaga, Spain
16–19 May 2006
www.melecon2006.etsit.uma.es

ISCAS 2006

IEEE International Symposium on Circuits and Systems
Kos Island, Greece
21–24 May 2006
www.iscas06.org

WILGA2006

18th Joint Symposium on Photonics and Web Engineering, Electronics for Astronomy and High Energy Physics Experiments
Warsaw University of Technology
Resort, Poland
29 May – 4 June 2006
wilga.ise.pw.edu.pl
photonics@ise.pw.edu.pl

JUNE

ICC 2006

2006 IEEE International Conference on Communications
Istanbul, Turkey
11–15 June 2006
www.icc2006.org

PMAPS2006

9th International Conference on Probabilistic Methods Applied to Power Systems
Royal Institute of Technology (KTH), Stockholm, Sweden
11–15 June 2006
www.PMAPS2006.org

7th IEEE EMBS International Summer School on Biomedical Imaging

Berder, France
17–25 June 2006
ieeess.enst-bretagne.fr

REV2006

3rd International Symposium, Remote Engineering & Virtual Instrumentation
Maribor, Slovenia
29–30 June 2006
www.online-lab.net/rev

ISCE 2006

10th IEEE International Symposium on Consumer Electronics
St Petersburg, Russia
29 June – 1 July 2006
www.isce2006.ru

AUGUST

EPE-PEMC 2006

12th International Power Electronics and Motion Control Conference
Portoroz, Slovenia
30 August – 1 September 2006
www.ro.feri.uni-mb.si/epe-pemc2006

SEPTEMBER

UPEC 2006

41st International Universities Power Engineering Conference
Northumbria University, Newcastle-upon-Tyne, UK
6–8 September 2006
www.upec2006.org