



For details on how to use this QR code, turn to page 4.

Director wants R8 to be catalyst for ideas

IEEE'S mission statement tells us that "IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity".

Region 8, its largest geographic organisational unit, has more than 70,000 members and more than 1,000 Sections, Chapters, Student Branches, Affinity Groups and so on. All together we can do a great deal about "technological innovation and excellence".

Region 8 can be a catalyst, a forum for the best practices and ideas of our sections and their members' activities.

During my term as IEEE Region 8 Director, I want to promote services that help members' professional career development, including continuing technical education and so-called 'soft skills' such as leadership training. I also intend to strengthen our cooperation with national professional organisations throughout Region 8.

Members in developing countries now have the option to choose low-cost e-membership, where membership materials and publications are delivered paperless, in electronic form. This is a great opportunity for development and



growth. Keep in mind that our region is powered by volunteers – a very special kind of dedicated and enthusiastic people.

Marko Delimar
IEEE Region 8 Director

Delimar: promoting continuing technical education and soft skills training

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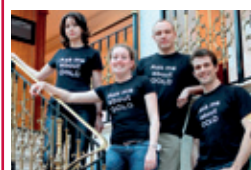


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From left to right: Daniel Pasquet (France Section chair), Jean-Gabriel Rémy (Region 8 past Director), Prosper Chemouil, Mikaël Tanter, Jean-Louis Coatrieux and Paul Friedel (SEE president).

Léon Brillouin award presented to Mikaël Tanter at SEE in Paris

THE Léon Brillouin award is sponsored jointly by IEEE and the French *Société des Electriciens et Electroniciens* (SEE). It is given every other year in the domain of material and component physics, optics and electronics.

The 2010 award has been awarded to Mikaël Tanter for his outstanding achievements in acoustics and their impact in health care.

Mikaël Tanter is a senior researcher (*directeur de recherche*) at Institut Langevin in Paris where he heads the Wave Physics for Medicine and Biology laboratory.

At the ceremony in Paris, held at SEE's headquarters on 1 December 2010, a €4,000 prize and certificate were presented by Jean-Louis Coatrieux (award committee president) and Prosper Chemouil (chair of the organizing committee). Mikaël Tanter also gave a short talk – 'From Wave Physics to Medicine' – which provided a bright overview of his research, emphasising the potential applications to new health therapy.

Daniel Pasquet
France Section Chair

Committee congregates in London

IEEE Region 8's 96th Committee Meeting took place in London, UK, from 25–27 March, following the invitation of the UK&RI Section.

Region 8 Director Marko Delimar opened the meeting with an overview of the region. He also pointed out the key challenges that Region 8 is facing as well as its strength, weaknesses and opportunities in the future.

Honorary guests attending the meeting included IEEE President Moshe Kam, IEEE President-Elect Gordon Day, IEEE Past President Pedro Ray, Vice President (Member and Geographic Activities) Howard Michel, IEEE Standards Association President Steve Mills, Region 9 Director Tania Quiel, Region 10 Director Lawrence Wong and Executive Director James Prendergast. Some of these guests also gave presentations on IEEE directions and MGA activities.

On the regional level, the Secretary's report, Treasurer's report and presentations were delivered by the three new Vice Chairs on member activities, student activities and technical activities.

On Saturday afternoon, five workshops took place with the aim of devising recommendations for ▶

...continued on page 5



A Tudor juggler provides medieval entertainment before the gala dinner.

PASC wants to enhance non-tech job skills of all Region 8 members

IEEE plays a crucial role in helping our members enhance their skills, knowledge, lifelong learning and employability, contributing to improving technology and the quality of our lives.

Besides technical excellence, a number of other skills are necessary for a successful career. IEEE Professional Activities focuses on maintaining and enhancing lifelong employability and careers. It advises and collaborates with public bodies, corporations, NGOs and non-profits to benefit IEEE members, their professions and the general public by continuing to promote ethical conduct.

IEEE Region 8 Professional Activities subcommittee (PASC) intends to conduct activities that enhance non-technical professional skills. Job-related training (or 'soft skills'), qualifications, career management, public awareness, workforce development, public policy and government relations are all within the scope of the committee.

The Region 8 PASC team can assist Sections to organise professional activities through their officers. To this end, we need organisers of local events to report their plans and activities to us at r8pasc@ieee.org.

Professional Activities workshops have a long history in Region 8, and have proven to enhance the programs of technical conferences, Chapter meetings, GOLD and student events. We welcome new proposals for speakers and trainers to become involved with IEEE Region 8 professional activities. Contact us: r8pasc@ieee.org.

IEEE Region 8 PASC is accessible at www.ieee.org/r8, Membership Activities > Professional Activities. Do join our weekly discussions at the LinkedIn IEEE Region8 Professional Activities Group or follow us on Facebook at www.facebook.com/ieee.r8pa.

Matej Zajc
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Past and current IEEE France Section chairs at the ceremony (left to right): Jacques Cladé, Pierre Borne (current chair), Christine Nora, Michel-Henri Carpentier, Daniel Pasquet, Victor Fouad-Hanna and Jean-Gabriel Rémy.

France decorates past section chairs with Légion d'Honneur

VICTOR Fouad-Hanna has been decorated as *chevalier* of the French *Légion d'Honneur* and Christine Nora has been elevated to the grade of *officier* during a ceremony in Paris on 7 April 2011. Christine Nora was the France Sec-

tion chair in 1996-1999 and Victor Fouad-Hanna in 2002-2005.

The *Légion d'Honneur* is the highest decoration given by the French government to people who have accomplished outstanding work for the benefit of the nation.

Advancing technology for humanity: implementing the tagline

THE IEEE tagline linking technology advances with humanitarian activities has been in existence for just over one year. It links the IEEE brand with an optimistic message to the world from IEEE, while serving as a constant reminder to members, volunteers and staff of IEEE's commitment to its public imperatives.

Here are some examples of this humanitarian connection.

Introduced by 2007 IEEE President Leah Jamieson, and administered by IEEE Educational Activities, Engineering Projects in Community Service (EPICS) in IEEE aims to improve the quality of lives through support for projects led by university and secondary school students. Examples include photovoltaic energy collection and storage, digital teaching software for schools, and wind turbine design and construction and an air quality monitoring project.

A related venture now entering its third year, the IEEE Presidents' Change the World Competition, administered by MGA, shares common goals of student leadership and team development and societal benefits. These activities add real-world expertise to the student members as well as value to the community in which they live.



A 2009 meeting at the National Academy of Sciences in Washington DC, which was initiated by IEEE Technical Activities, addressed solutions for three important humanitarian problems:

- reliable electricity
- data connectivity of rural district health offices
- individual identification ID tied to health records

Since then, IEEE Humanitarian Technology Challenge solutions to reliable electricity have been developed. A 1kW portable photovoltaic generating station that charges battery packs for powering residential illumination in remote villages has been demonstrated and business plans from materials suppliers and franchisers for sustainable growth are being developed.

In a related effort, five 300W hybrid power distribution systems, designed for use as first-provider health care facilities in remote areas, are scheduled for deployment and test during 2011. These efforts are being led by IEEE volunteers who are also subject matter

by **Peter W Staecker**

experts in these areas. Funding comes from the IEEE New Initiatives Committee, the IEEE Foundation, the Power and Energy Society and the Nuclear and Plasma Science Society.

Formed in 2007 as a Technical Committee of TAB, IEEE's Committee on Earth Observation (www.ieee-earth.org) has been working with the international Group on Earth Observations (GEO) to integrate a system of sensors and instruments with analysis and modeling systems to monitor/model changes in the global environment. These observations and models will provide predictive information on areas of disasters, health, energy, climate, water, weather, ecosystems, agriculture, and biodiversity for use by the global and local community. IEEE volunteer experts and specialists are engaged in GEO support activities.

IEEE Conferences on Humanitarian Technology provide a forum on these activities, with the next conference planned for this autumn in Seattle, Washington, USA. IEEE Humanitarian Technology Network (HTN) serves as a repository of IEEE member humanitarian efforts, while Engineering for Change (E4C) is a collaboration of three not-for-profit engineer-



Peter Staecker's service to the IEEE Board of Directors includes Director, Division IV, Electromagnetics and Radiation (2001-02), Vice-President, Technical Activities (2007) and IEEE Treasurer (2009-10). He is an Honorary Life Member of the Microwave Theory and Techniques Society, and is presently a member of the IEEE Ad Hoc Committee on Humanitarian Activities and the Technical Activities Board Future Directions Committee.

ing organisations, including ASME (American Society of Mechanical Engineers), EWB-USA (Engineers without Borders - USA) and IEEE. E4C will seek additional members from the engineering and scientific community as well as corporate partners in order to enhance the effectiveness of the collaboration.

Projects in humanitarian activities have been growing in scope and popularity for at least the past five years, and while some of these efforts have been introduced through Board of Directors' and Operational Unit initiatives, others have come from grassroots organisations such as GOLD.

Working for the greater good knows no organisational or national boundaries, and the success of these ventures across emphasises the effectiveness of working for a common cause. Look at the menu of opportunities above and choose those which align with your personal tagline.

Your ideas and participation will be fulfilling and welcome!

One IEEE Climb the pyramid of wisdom with machine-readable data

by Roger Pollard

A STRATEGIC goal for IEEE publishing is to "...be the resource of choice for information and services that technical professionals consider essential to their success".

The First IEEE Workshop on the Future of Information was held last year in Washington DC. Its background was that the hierarchy of information systems is changing fast. Nowhere is this more readily seen or understood than in the content created, exchanged, purchased and used by scientists and engineers.

When we extend our activities, we turn more frequently to new digital technology tools. Brain work that builds knowledge is becoming automated by digital technology just as mechanical technology automated factories.

There is increased demand from multi-disciplinary, multi-investigator, multi-institutional, multi-national research projects. Our research communities are now using online social media to share their work with trusted colleagues.

When they come to publish their final results, they are still focused on established peer-

reviewed journals to help them establish their reputations and gain promotion. For many of them, individual research articles have limited value.

Create new insight

Wisdom is the accumulated body of knowledge and experience that develops within a specified field. The pyramid below illustrates that the first three categories relate to the past; they deal with what has been or what is known. Only the last category, *Wisdom*, deals with the future because it incorporates vision and design. This is how we create new insight rather than just grasp the present and past.

The majority of technical publishing is still in the form of individual articles, which can be regarded as *Data* in our model.

New tools for information discovery and analysis are needed to find the answers we seek from the huge volumes of publications. These enormous collections of facts grow rapidly and get more difficult to

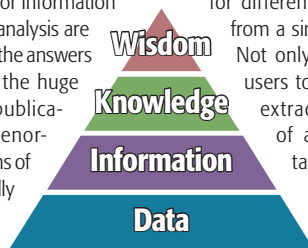
organise as Information.

Today, we find in IEEE Xplore Portable Document Format (PDF) articles, which lock content into static pages. You cannot easily extract the content from the PDFs, so the reader derives the information and turns it into knowledge by him/herself.

Extensible Markup Language (XML) is a set of rules for encoding documents in machine-readable form. Meaning is derived using XML tags, and is of course automated by the computer. With artificial intelligent tools this can become knowledge.

Migration to XML-tagged content will enable us to build tools that can be used to climb the pyramid. Once data is tagged, it can be reused many times. From XML, we can readily produce versions for different digital devices from a single data source.

Not only does it enable users to easily find and extract components of an article (data tables, diagrams, mathematical equations) but it also fa-



Roger Pollard is currently IEEE Secretary, having previously served as Vice-President for Technical Activities, MTT Society President and as a Chapter and Section Chair in Region 8. In 2011, he is running for election as IEEE President and, if elected, would be the first from outside North America.

cilitates the development of new products.

It should also allow us to mine the data for information which the user (and perhaps artificial intelligent tools) can analyse and turn into knowledge.

Sophisticated meaning

Ultimately, that knowledge adds to the wisdom of mankind and allows us to create (invent) new things to build the future. Our technology information tools can thus progress from just indexing and relevance ranking to more sophistication where they can enable the electronic extraction of meaning from the information that is specific and relevant to a particular question.

IEEE plans to apply XML to all the content in Xplore, initially for journals and magazines and later for conferences, standards, and books. Take a look at some pilot next-generation IEEE articles at http://ieeexplore.ieee.org/ieee_pilot/pubs/pilot-toc.html.

Next-gen pilot for IEEE info is launched

AS part of a longer-term strategy to offer IEEE content in a more interactive way, a prototype of the Next Generation IEEE Article is now available through the IEEE Xplore Digital Library.

The new format allows readers to access the content as an HTML-formatted Web page and enables them to extract components of an article, such as figures, data tables, and mathematical equations. It also allows IEEE to mine and merge data from its articles with other information sources to create knowledge solutions.

For more information, including key features, see the latest issue of the IEEE PSPB Newsletter at <http://tinyurl.com/pspbnews#sect1>, or visit the pilot project landing page at http://ieeexplore.ieee.org/ieee_pilot/pubs/pilot-toc.html.

Ensure R8 members receive their awards

THE IEEE Region 8 Awards and Recognition sub-committee (ARC) is responsible for the administration of a wide range of awards made in the region to individual members and also to sections and chapters. Each year, these awards recognise the achievements by individuals and member groups in serving their members. The specification and deadlines for the Region 8 awards are listed on the website (ewh.ieee.org/reg/8).

One of the committee's primary objectives is to raise awareness of these awards among members and to stimulate more nominations.

There are also other awards given for members (and some for non-members), mostly for technical achievements, and managed centrally through the IEEE Awards Board or through the major activities boards – Member & Geographic (MGAB), Technical (TAB), Educational (EAB), etc. These awards are open to worldwide competition, and although Region 8's ARC does not play any direct role in their administration, it is con-

cerned to ensure that Region 8 receives a proportionate share. They include the highest conferred by IEEE, namely the 15 IEEE Medals and the 30 IEEE Technical Field Awards. The medals are presented at an annual honours ceremony.

The Technical Field Awards are closely linked to the sponsoring IEEE society and are typically presented at IEEE conferences. There are also recognitions given for the work of individuals and companies.

Details of these awards and a complete list of past recipients can be found on the IEEE Awards website at www.ieee.org/about/awards.

Region 8 ARC has contacted all Section and Chapter chairs, asking them to appoint working groups to carry out the essential preparatory work that helps to ensure a successful nomination.

But finding suitable and worthy candidates is just the start of the process. Substantial supporting evidence is required, and nominators and supporters, preferably of high standing in the

profession, need to be actively involved: personal knowledge of the achievements of the candidate is always advantageous.

Because of these factors, your region ARC asks that all sections and chapters take action to ensure that awards and recognition are given proper attention.

Recommended actions:

1. If you personally know of suitable candidates for any IEEE award, please contact your section or chapter committee to propose the case for nomination, and the names of potential supporters.
2. Individual members who believe that they might be eligible for a specific award should contact ARC. They should also ask colleagues at work or other IEEE members for help with nomination.
3. If your Section/Chapter does not already have a process in place for dealing with awards and recognition, ask that one be set up.

Charles Turner
Chair, Region 8 ARC
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Your editors: Zhijia Huang (left) and Roland Saam

Redesign marks the start of lead-in to anniversary

IEEE Region 8 News has a new look which will develop over the next few issues in time for the 50th anniversary of our region in 2012–13.

On that note, remember that the Region 8 website at iee.org/r8 contains practically all back-issues of *IEEE Region 8 News* from the last 10 years. These PDF files can be downloaded free of charge, and within them you will find many interesting events and personalities reported... a history of some of our activities.

In this issue (page 3), Roger Pollard continues his series *One IEEE* with an article describing the new process of 'tagging' the vast libraries of documents that IEEE has in Xplore. He explains how Extended Markup Language (XML) tags will greatly improve the task of finding information currently 'hidden' in text stored in digital form.

On page 2, our guest contributor, Peter Staecker, analyses what is behind the IEEE expression "Advancing Technology for Humanity" which now appears under the IEEE logo. This memorable phrase is used in marketing to reinforce the audience's memory of a product. In American advertising it is called a 'tagline'. His article tells there is a lot of activity by IEEE members to support it.

Indeed, there is a lot of activity and news reported in this issue. We editors (Zhijia and I) depend upon you to write up what is happening in your corner of the region. We need stories about inventions, innovations, history, puzzles, and so on which are related to our engineering, technology, personal experiences. Let's hear from you! Email us at r8news@iee.org.

Roland Saam

How do I use a QR code?

IEEE Region 8 News now offers a quick way for users of smartphones and tablet computers to go to websites without having to type in URLs manually. Scanning this QR code graphic on the right, for example, using the camera on your handheld device, will take you the *IEEE Region 8 News* website.



You will, however, need some QR code reader software on your smartphone or tablet for this to work. Usefully, there are plenty of QR code reader apps available for Apple iPhones, iPads and Android-based smartphones and tablets – and most of them are free to install and use.

Just go to the App Store or Android Market and search for 'QR code' to find the many apps you can download. After installing a QR code reader app, launch it, activate its capture mode and point your device's camera at any QR code in the pages of this newsletter. Your device will then automatically switch into web browsing mode and access the associated website.

Reading this newsletter digitally? Then there's no need for codes. Just click (or tap) on the weblinks and email addresses clearly marked in red throughout the issue, such as www.ewh.iee.org/reg/8/news.

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Extra copies

If you would like extra copies of *Region 8 News* for distribution at your IEEE events, please email a request to the editor before the deadlines below, specifying quantity and delivery address. Please type 'R8 News Extra Copies' in your email subject line.

Submitting articles

We welcome news, articles and letters from any member of the IEEE. Please send these to the editor as plain text by email to r8news@iee.org, remembering to type 'Region 8 News' in your email subject line. If sending photos or graphics, please make sure they are high-resolution files. Read our full guide to writing and submitting articles at www.ewh.iee.org/reg/8/news/contributors.html.

Deadlines for upcoming issues

September 2011 issue.....deadline: 1 July 2011
December 2011 issue.....deadline: 1 October 2011
March 2012 issue.....deadline: 1 January 2012
June 2012 issue.....deadline: 1 April 2012



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96th Region 8 Committee Meeting held in London

Highlights from the three-day event that took place on 25–27 March, based at the Radisson Edwardian Hotel, Heathrow

continued from page 1...

the Sections Congress to be held in August. It was a very interactive process from which very interesting ideas and proposals were drawn. The recommendations were finalised by May.

Other social activities also took place during the meeting. On the Friday evening, the UK&RI Section presentation took place followed by a lecture from Christopher James, the Section Chair. The lecture was entitled 'Communicating through the power of thought: Conversing through electromagnetic brain activity' and was attended by more than 100 people.

On the Saturday night, an awards ceremony and gala dinner took place at a historical English royal hunting lodge called Great Fosters, where a list of awards and tokens of appreciation were given to the winners.

At the end of the meeting on the Sunday afternoon, Marko Delimar thanked everybody for their contribution and especially the UK&RI Section for the successful organisation of the whole event.

You can find all the presentations and reports of the meeting on our website www.ieee.org/r8 (you will find the link at end of the page).



Presentations at medieval hunting lodge Great Fosters: note the master of ceremonies 'Henry VIII' looking on from the left



Committee members gather in the hall of the Radisson Edwardian Hotel



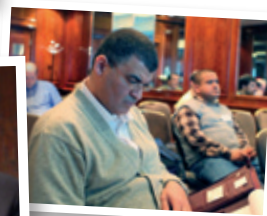
Eva Lang (left) and Pilar Molina Gaudó receive a recognition award from Region 8 past Director József Modelski for serving as Vice-Chairs of Student Activities and Membership Activities for the past two years



Region 8 Student Activities Committee and GOLD committee members



IEEE Region 8 News editor Roland Saam in deep discussion with Region 10 Director Lawrence Wong



Region 8 Vice-Chair (Membership Activities) Ali El-Mousa



Participants in the Africa Initiative (activities in sub-Saharan Africa) Meeting



The busy Committee Meeting room revealed the great variety of sections within Region 8

FROM 18–19 November 2010, around 35 participants from Germany and Austria met for the third annual meeting of the Joint IEEE IAS / PELS / IES German Chapter at the campus of the German Aerospace Centre (DLR) in Oberpfaffenhofen close to Munich.

The meeting was hosted by Gerhard Hirzinger, head of the DLR Institute of Robotics and Mechatronics.

The DLR facilities in Oberpfaffenhofen include an airport for aeronautic research. This gave us the opportunity to start the meeting with a very interesting tour through one of the hangars including four research aircraft. Frank Probst and Josef Reill gave us an overview over their activities such as the measurement of airborne volcanic ashes following the eruption in Iceland in April 2010.

The second day started with a tour through the German Space Operations Centre (GSOC) where we learned about the different orbits for tasks such as research, GPS and telecommunication. Multiple projects are handled in a 24/7 schedule. Typically GSOC is responsible for the launch and early orbit phase, and also operates the Columbus Control Center (Col-CC) for the payload of the European Columbus laboratory.

The IEEE business of our meeting soon brought us back to earth. The election of new chapter officers (2011–13) included Axel Mertens (University of Hannover) as Chairman, Edwin Kiel (SMA Solar Technology) as



Past Chairman Ingo Hahn (left) and Chapter Chairman Axel Mertens are made welcome by 'Justin', the humanoid robot developed by the German Aerospace Centre

Aerospace and robotics are the stars at annual meeting of German IAS/PELS/IES

Vice Chairman, Omid Forati Kashani (Continental Engineering Services GmbH) as Secretary and Mark Bakran (University of Bayreuth) as Treasurer. Stephan Beineke continues in his role in membership development and Andreas Wagener in public relations.

Future meetings include the Austrian Railway, planned from 7–8 July 2011.

The technical program started with Gerhard Hirzinger's overview of DLR Institute of Robotics and Mechatronics' diverse activities in space missions, industrial robotics and robotically aided surgery. Alin Albu-Schäffer talked about the interaction between humans and their robotic assistants. While traditional robots, designed to a maximum of stiffness, have to be separated from the human staff during operation and tend to have a bad payload-to-robotic mass ratio, the lightweight approach delivers a ratio up to 1. The DLR humanoid robot Justin is based on the third generation of the DLR arm.

Sonja Schedl then presented us the muscle of the light weight arms, the RoboDrive hollow shaft torque motor, typically connected to a harmonic drive gearbox. The motors are available from 25 to 115mm in diameter

and have been optimised with respect to the power density.

The session concluded with a presentation of the fourth generation of the DLR arm, migrating it from a humanoid design to an anthropomorph approach. This not only compensates for the elasticity of the mechanics but builds up a variable elasticity for any of the muscles, resulting in a dramatic increase in maximum acceleration. In total, 54 motors are used for a single arm.

A tour of the lab included a chance to meet the humanoid robot 'Justin', definitely the highlight of the event. To see Justin in action, visit youtube and search for 'Justin' and 'DLR'.

For details of our meetings, visit ewh.ieee.org/r8/germany/ias-pels.

Andreas Wagener

IEEE Joint IAS/PELS/IES Chapter Germany Section



Greece Section glimpses the future of interactive robots

THE annual meeting of the IEEE Greece Section officers and members took place on 14 April at the Hellenic Technology Clusters Initiative (www.corallia.org) premises in Athens, Greece.

This was followed by a lecture, 'Glimpses to the future of Robotics: From Interactive Robots, Social Networks, and Telepresence Towards the Hybrid Human-Machine Cloud',

delivered by Nikolaos Mavridis, Assistant Professor at UAEU CIT and Director of the Interactive Robots and Media Laboratory. The speaker presented a history of robotics and succeeded in highlighting present-day and future applications.

The event was well attended by engineers on-site and on-line at three different cities in Greece.

Thanos Skodras



Guest lecturer Nikolaos Mavridis brings robotics and social networks together at the annual meeting of IEEE Greece Section



125th anniversary recalls the illustrious beginnings of LETI

DURING July this year, St Petersburg State Electrotechnical University (LETI) will celebrate its 125th anniversary.

The university's history began in 1886 with a decree from the Emperor Alexander III which established the Technical College of the Post and Telegraph Department for training in the field of wireless electrical engineering. In 1891, the college was transformed into the Emperor Alexander III Electrotechnical Institute, the first higher school in Europe to specialise in electrical engineering. From the very first years of its existence, the Institute became a recognised national centre for studies and research.

On the eve of the 20th century, many Russian founders of this branch of science and technology were awarded the title of Honorary Electrical Engineers by the Senate of the Institute. Among them were Professor Borgman, one of the founders of electrical engineering in Russia; A Lodygin, inventor of the carbon incandescent lamp; A Popov, inventor of wireless communications and the first elected Director of the Institute; K Siemens, industrialist in telegraphy and electrical engineering; and several others.

Many outstanding researchers and scientists have been invited to teach and research at the Institute over the years. In 1992, the Institute was granted University status.

Professors of the Institute provided a great input into the industrial development of Russia. G Graftio supervised the Plan of Electrification of Russia, while A Smurov created a scientific school and a laboratory for high voltage transmission and technologies. S Rynkevich established the first laboratory for electric drives in Russia.

The Institute's staff have actively participated in teaching and research in the developing areas of electrical and electronic engineering, including radio engineering, cybernetics, industrial automation and microelectronics. In 2000, the Chair of the Department of Optical Electronics, J Alferov, was awarded the Nobel Prize for his research in semiconductor heterostructures.

At present, St Petersburg State Electrotechnical University remains one of the main national centres for teaching and scientific research in many areas of electrical and electronic engineering. It cooperates with many universities and research centres of Europe, Asia and America. Its strategic partners include such global companies as Motorola, IBM, Siemens and Texas Instruments.

For many years, LETI has actively supported its staff participation in IEEE Russia North West Section activities. In 2010, V Kutuzov, the Rector of the University, was elected Section Chair.

Nigeria Section lays plans for imminent conferences

ON 26 February, a meeting of the IEEE Nigeria Section executive committee (excom) was held in Port Harcourt.

We discussed plans for ICAST 2011, IEEE Nigercon 2012 (the conference of IEEE Nigeria held every two years) and the IEEE Africon 2013 (an event being organised collectively by the IEEE Africa sections). Schedules of intended local IEEE events include the IEEE Nigeria Southern universities Robotics challenge and several workshops and outreach programs.

During the meeting, several Excom members (IEEE Nigeria Computer and PES chairs) made contributions via phone-in sessions. The future is looking bright for the Nigeria Section.

IEEE Nigeria Section intends to publish a section technical journal with UC Uchenna confirmed as editor. Also at the meeting, an article documentation management system powered by Easy Chair software was approved.

Raphael Onoshakpor

Port Harcourt Nigeria Section



Nigeria Section Chair Tunde Salihu and Vice Chair Gloria Chukwudebe (both centre) were joined by the new Women in Engineering coordinator Miss Ifeoma Okoye and the GOLD chair Prince Ibe.

Spain discusses IEEE e-tools

ON 10 March, the excom of the Spain Section held its the annual meeting with all Spain Chapters. Section Chair Manuel Castro and Vice-Chair Pilar Molina Gaudó gave several talks about a variety of IEEE management e-tools.

IEEE students and members

gathered at Universidad Politécnica de Madrid (UPM) on 9–13 March for several meetings, and to join with IEEE Portugal section in the biannual Iberian Student Branch Congress (ISBC 2011). For a full report, see page 11.

German Carro & Agustí Solanas



cartoon © Taylor April 2011



Where tradition and engineering development go hand in hand: LETI features some astonishing historical buildings (top), yet they are fitted to the highest technical standards (left)

R8 GOLD COMMITTEE

London meeting played host to new GOLD Committee

THE newly appointed Region 8 GOLD Committee attended the 96th IEEE Region 8 Committee Meeting in London, where we met for the first time. The team wore eye-catching 'Ask me about GOLD' T-shirts designed to encourage participants to find out more. The snappy GOLD poster was displayed at the official reception, where it attracted a lot of notice.

Students from the E.Quinox.org project at Imperial College London showed their 'battery box' system. Their talk 'Bringing Electricity to Rural Communities in Developing Countries' was delivered by winners of the IEEE President's Change the World competition.

During the first day, Salima Kaissi (Region 8 GOLD Coordinator) gave a presentation on the recent achievements of the GOLD committee and the GOLD plan this year. Noteworthy statistics proved an increasing trend in the number of GOLD members within Region 8 which attest to our promotion efforts. GOLD website and social networking were also reviewed. Our most recent initiative, 'The R8 GOLD Book', was also exhibited.

The meeting in London gave us the opportunity to discuss recent issues con-

cerning cooperation between Affinity Groups, Chapters and so on within Region 8. We generated a lot of new ideas and motivation for our volunteering work.

GOLD activities will support IEEE Student Transition & Elevation Partnership (STEP) and Humanitarian Workshop programs together with IEEE Professional Activities, Student Activities and Member Development Committees, and share the knowledge and experience. Moreover, we will keep the ultimate target – to increase the number of newly established and active GOLD groups in Region 8.

Salima Kaissi was awarded the IEEE MGA GOLD Achievement Award for her outstanding contributions to public visibility of IEEE by creating and implementing the idea of establishing a global 'IEEE Day'. This is a project that focuses on a simple concept: celebrate everywhere around the world the achievements of IEEE members. More details on this can be found online at www.ieeeday.org.

For more GOLD information and more pictures, visit our website www.ieee.org/r8gold or simply scan the code (right).

Rafal Sliz & Nele Reynders
R8 GOLD Team



The GOLD team in eye-catching T-shirts



Salima Kaissi is handed her MGA GOLD Achievement Award



Use your smartphone or tablet computer to scan this QR code and jump straight to the IEEE Region 8 GOLD website

Outstanding work will be recognised

THE Region 8 GOLD Outstanding Award exists to recognise GOLD Affinity Group members within the region for their efforts and achievements in carrying out the mission of IEEE GOLD and of IEEE within their Sections during 2010.

Recognition will be given to the most successful running of current programs and the development and implementation of new ones. Furthermore, these activities should have left an important imprint in the section and Region 8.

The winner will receive a certificate providing the citation for the award and a cash prize of US\$500 granted by the R8 GOLD committee to the corresponding GOLD AG. The award winners will be announced in June and given to the GOLD AG chair at an award ceremony in August 2011 in San Francisco.

For more information please email r8gold@ieee.org.



Students are trained during their visit to Cosmote SA



Students and Professors at the Gala Night that closed ATHENA Summer School 2010

Cellular tech was focus of ATHENA summer school

THE first ATHENA Summer School on 'Cellular Technologies & Solutions' was held from 19–25 July 2010 in the Nafpaktos, Greece.

Technical support and sponsorships were received from IEEE Greece GOLD Affinity Group, Cosmote SA, CISCO Networking Academy, ANKO and IEEE Vehicular Technology Society and IEEE Aerospace and Electronic Systems Society (AEES).

The main scope was to train students of all levels and engineers in the technical details of existing (GSM, GPRS, WCDMA) and emerging (LTE) mobile communication technologies. The advantage of exploring the latest technology with industrial companies which have a good research and engineering base was a good preparation for this technology.

You are invited to the second ATHENA Summer School in Pyrgos, Greece, on 25–27 June 2011. This event will be focused on the areas of 'Wireless Technologies & Applications'. For details, go to www.athenasch.gr.

Nicolas Sklavos

IEEE Greece GOLD Affinity Group Chair

nslavos@ieee.org

Turn your educational ideas into live projects

Did you know that...

...IEEE offers funding for outreach activities related to a community or humanitarian subject?

If you are an IEEE student or graduate student, and have an idea for attracting high school students into engineering and science, IEEE can help you find an NGO to guide you with implementing it. Check out the EPICS High program at www.ieee.org > search for 'EPICS'. Engineering Projects in Community Service offers basic funding of up to US\$5,000 for realising the project by educating kids and implementing community relevant projects.

...there are more than 80 modules for bringing engineering into the classroom?

Are you looking for lesson plans to engage kids or undergraduate students in engineering and technology? Look no further than www.tryengineering.org. IEEE offers you a vast collection of fully worked-out, fun and educational lessons that can be directly used in the classroom to create awareness of engineering

subjects among kids. It is available in seven languages besides English.

...IEEE educates teachers?

Through the Teacher In-Service Program (TISP), the IEEE Educational Activities Boards offers training days for teachers to bring more engineering fun into their classrooms. The TISP events provide teachers with new ideas and methods for engineering education. They discuss curricula trends and establish round tables with IEEE volunteers and educators world-wide. Go to www.ieee.org > search for 'TISP'.

...you need support for your pre-university activities?

Ask me, Eva Lang, for guidance on implementing your projects or to participate in one of our pre-university activities lessons. Look for a timetable of events at the Region 8 Educational Activities subpage (linked from www.ieee.org).

Eva Lang

IEEE Region 8 Pre-University Activities Coordinator
eva.lang@ieee.org

University of Central Greece

Embedded systems event attracts large numbers

ON 7 April, the University of Central Greece Student Branch and the Department of Informatics and Biomedical of the University of Central Greece successfully organised the third annual workshop of the local IEEE Student Branch, themed 'Embedded Computing Systems and Applications in Biomedicine'.

The conference program included a series of keynote speeches in the auditorium of the department and, for the first time, parallel tutorial sessions in classrooms and laboratories.

The workshop sessions covered a wide variety of topics: storage technologies; embedded systems; implementation platforms; reading biosensors using micro-controllers; trends in biomedical research; the development of Google Android Lab; game design and developing software for serious applications.

The workshop and tutorial sessions attracted more than 200 participants, not only members of the Student Branch but also students from other educational institutes, electrical and computer engineers, hospital managers, doctors and local authorities' representatives.

The event was supported by the local press and there was an extended presentation to the regional TV channels.

Once again, students (and especially IEEE student members) were responsible for one of the major academic events in central Greece. This was also the second time that the workshop attracted members from other Greek Student Branches, giving us an opportunity to train them in organising similar events of their own.

Thanos Kakarountas
Newsletter Editor
Greece Section



Students gather at major R8 meetings



TWO very successful student meetings took place recently in Region 8. The first was the Iberian Student Branch Congress (ISBC) held in Madrid, Spain, on 11–14 March, gathering more than 60 students from Student Branches in Portugal and Spain. The event included workshops and lectures by speakers from IEEE and industry as well as cultural visits and social events. The aim of the congress was to develop technical skills and interpersonal competences and create networking opportunities for IEEE student members.

The second was the Middle East Student Branch Congress (MESBC) held in Doha, Qatar, on 15–17 March. Workshops included sessions on Body Language in Business, How to Establish and Manage Student Branches, Fund Raising, Engineering Ethics and Presentation Skills. The Congress was attended by 156 participants from 25 Student Branches and 12 countries.

Student Branch reporting

There are two kinds of report that Student Branches must submit. As soon as you elect a new officer in your branch, please be sure to fill out the online reporting form available at http://link.ieee.org/officer_reporting. The second report is the update on your activities. This has to be done only once (usually by 31 May or two months after the academic year is over) and helps us to pinpoint common activities and problems that you might have. Use the online forms at <http://sbr.vtools.ieee.org>.

Student Branch training

Are you looking for information on how to run your Student Branch? The IEEE Center for Leadership Excellence (CLE) is the new repository for training material in IEEE. You can find 'Quick-Start' programs for your Student Branch Chair, Vice-Chair, and Section student representative. More training programs and advanced training modules will be up soon at <http://link.ieee.org/cle>.

R8 SAC meeting in London

This year's spring Region 8 meeting took place in London, and was the first opportunity for the whole R8 SAC team to get together. We invited the local Student Branches to a very well-attended session, from which numerous suggestions for improvement came out.

Coming Up

If you've been paying attention, you may have noticed that the R8 SAC website has undergone major changes, being merged into the R8 website and restructured to help you access useful, up-to-date information more easily. If you have any comments or suggestions for improvement, we'd very much like to hear them, drop us an email at r8sac@ieee.org.

Watch out for further upcoming contests towards the end of the year, such as the 24-hour global programming contest, IEEEExtreme. Coders, prepare yourself and get ready for the global challenge! Go to www.ieee.org/xtreme.

June SAC Q&A

Q: What is the definition of SSR in IEEE context?

- a) Stupid Sleeping Rumours
- b) Solid State Radio
- c) Section Student Representative

Answer: find out for yourself at www.ieee.org and www.r8sac.org

Your Region 8 Student Activities Committee:

Elias Nassar, Chair
eliasnassar@ieee.org

Muhammad Mustafa

Student Branch Coordinator

Jef Beerten

Awards and Contest Coordinator

Hossam Fahmy

Web Activities Coordinator

George Paunović

Student Paper Contest Coordinator

Jorge Soares

Student Representative

Eva Lang, Past Chair



Yarmouk University, Jordan

Yarmouk SB explains how to achieve success as an engineer

YARMOUK University Student Branch organised an event to introduce IEEE to more than 45 students in our university: 'IEEE is back'.

Firstly, we delivered a presentation on how to achieve success as an engineer. This was followed by the history of

IEEE, the benefits gained by joining and how to volunteer. Past Chair of the Student Branch, Bassam Ali, summarised the events organised last year by the branch and the achievements.

Finally, the Student Branch chair Nadeem Ahmed and counsellor Yaser

Anagreh closed the event with the goal for 2011.

Yarmouk University was established in 1976. Located in the northern town of Irbid, Jordan, it has a student body of roughly 31,000. The university offers engineering programs of study leading to

BSc and MSc degrees in five Engineering disciplines: Electric Power, Electronics, Telecommunications, Computer, Biomedical and Medical Informatics. More information at www.yu.edu.jo/en.

Nadeem Ahmed
Student Branch Chair



University of Cambridge, UK

Bi-annual meetings begin with event in Cambridge

FEBRUARY 2011 marked the start of a series of bi-annual Student Branch Chair meetings in the United Kingdom and Republic of Ireland Section.

The initial event took place at the University of Cambridge and was attended by representatives of almost all active Student Branches in the section as well as several officers from the Section Executive Committee and the Region 8 Student Activities Committee.

In addition to presentations about IEEE activities and initiatives in the UK&RI Section and Region 8, all Student Branch representatives were invited to present their local activities in order to share and discuss their experiences and ideas with other volunteers.

The presentations led to many fruitful discussions and plans for future activities.

During the meeting, the upcoming UK&RI Section Student Branch Congress 2011 was announced. It will be hosted by the Student Branch at Queen Mary, University of London from 2-4 September. The local organisa-

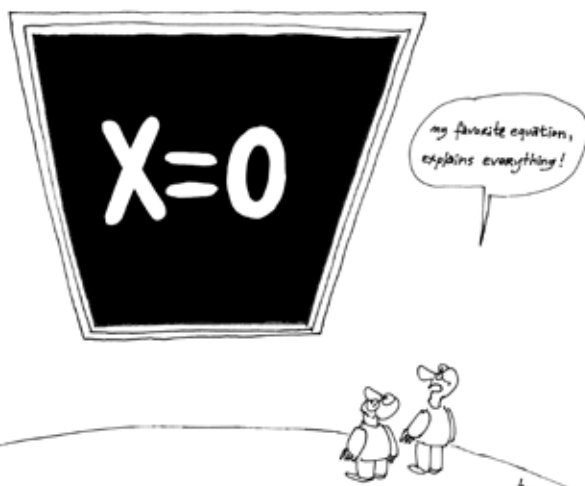
tion team is led by Sohaib Qamar Sheikh who presented the plans for the congress together with QMUL SB Chair Xian Zhang.

The event carries the slogan 'Sculpturing the leaders of tomorrow!' and will bring together students from all Student Branches in the section.

The focus of the congress will be on interaction and collaboration between the Student Branches to increase effective networking and to boost student activities in the section by training and motivating the student branch members.

In conjunction with the upcoming SBC, UK&RI section chairman Christopher James set a challenge to the Student Branches to work together to create an activity that highlights the engineering profession and provides opportunities for collaboration between them. It is aimed at addressing a charitable remit or a contribution to society. The outcome of the challenge will be presented at the congress.

Andreas Koltes
Student Activities Chair
UK&RI section



University of Ibadan, Nigeria

Guests from industry give advice at career day event

THE IEEE University of Ibadan Student Branch hosted a career day for its members on 23 March with over 80 students.

The event was organised to counsel the students on making the right career choices and getting their dream job.

Two guests, Kelechi Amamba and Hilda Delmote from Procter & Gamble, were invited to give the talk. They gave tips on how to choose the right career path. They believed that the choice of a career largely depends on one's interests,

where people hope to "live to work but not work to live".

Discussion with the speakers enlightened students on the best approach to write their CVs. At the end of the program, a final year student who had previously completed a six-month internship at the company, Olaolu Adisa (IEEE UI SB Chair), shared his experience and encourage students to develop good CV writing and job interview skills.

*Nwankwo Mary-Theresa
and Olaolu Adisa*



Technical University of Madrid, Spain

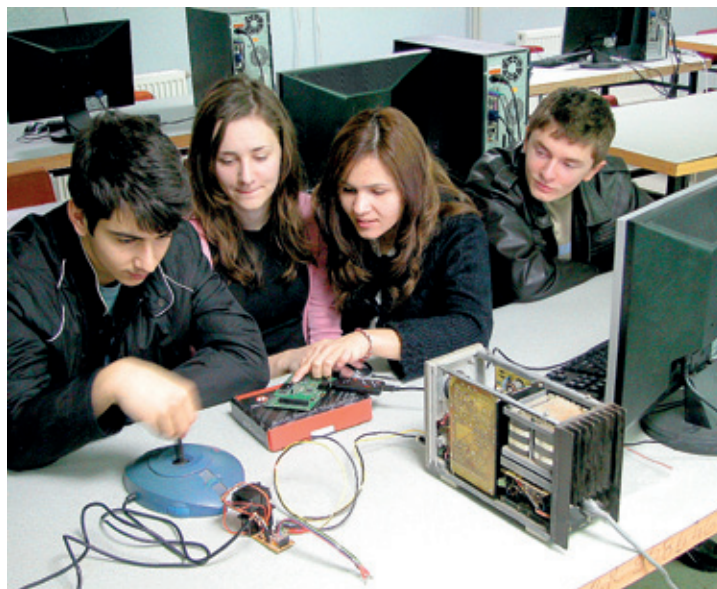
Iberian Congress attracts members across Europe

THE Second Iberian Student Branch Congress took place on 11–13 March at the Telecommunications Engineering School of the UPM in Ciudad Universitaria, Spain.

The event was sponsored by the Ministry of Education and IEEE Spanish and Portuguese sections, and was hosted by the Technical University of Madrid (UPM) and University Rey Juan Carlos. Gathering 60 participants from Portugal and Spain, it also attracted the attention of participants from the rest of Europe, including some numbers from Poland.



The technical program of the event comprised a large variety of workshops including Artificial Intelligence, Student Projects and Entrepreneurship, among others. A variety of tours were organised, giving participants the opportunity to visit the Solar house, the anechoic Chamber, the Institute for Systems based on Optoelectronics and Microtechnology and the Living Lab.



Politehnica University of Bucharest, Romania

Giving hands-on experience of electronics to first-year students

THE Minerva student program (www.cetti.ro/minerva) sets out to raise the interest of first-year students towards electronics and help them gain hands-on experience with passive and embedded components.

Our motto is 'Electronics from students to students'. It is a concept supported by the Politehnica University of Bucharest IEEE CPMT Society Student Branch Chapter, whose Scientific Adviser is Paul Svasta. It is delivered by students who have previously attended the program.

The Minerva series began with a first meeting on 18 February and ended on the 6 May with an awards session. An on-going program organised annually for more than

a decade, Minerva employed an exciting new schedule this year. Firstly, we had great support and sponsorship from Microchip Romania on the embedded system hardware. We also had installed several applications to help students starting programming with microcontrollers.

Though challenging, the program's new approach has been widely welcomed by first year students. We have high hopes that our objectives will be reached and hope this year's graduates will adhere to the Minerva program concept and teach new students next time.

Andreea Bonea
Chapter Chair

andreea.bonea@cetti.ro

Also for the final event day, the team organised an exclusive social activity where students had the chance to play on different Xbox 360 consoles, which were kindly lent by Microsoft Iberica. Even the

participants had the opportunity to play in big screen a Halo 3 match with eight players and Dolby digital surround sound experience!

Alberto Lorente
Chair, Student Branch, UPM



The event was rounded off with a social activity involving multiple Xbox 360 consoles and multiplayer Halo 3 on the big screen



The group in front of a spare turbine wheel at a pumped storage power station in Goldisthal

University of Bielefeld, University of Magdeburg and Technical University of Ilmenau, Germany

Three-way meeting joins German SBs

THE first meeting of the Student Branches of Bielefeld, Magdeburg and Ilmenau in March 2011 was an opportunity for further education and networking as well as recruiting new members.

The meeting was originally the result of a personal contact between Professor Haubrock, counsellor of the Bielefeld Student Branch, and Professor Westermann of the Technical University of Ilmenau.

The meeting started off with

a tour of the campus guided by Steffen Schlegel (Ilmenau Student Branch Chair) including the laboratories of Professor Westermann (chair for Electric Power Systems). Afterwards, an introduction of the three different Student Branches took place.

Following that official part of the meeting, the evening ended with an exchange of experiences and first impressions during which the members of the Student Branches got to know each other

and the foundations of further contact were laid.

On the second day, the group visited the pumped storage power station of the Vattenfall company in Goldisthal.

"Even though these Student Branches never met before, we were welcomed with open arms," said Bielefeld SB's Vice-Chair, Dominik Drescher. "It gave us the chance to discover many things we have in common. We really enjoyed this trip."

AFRICON 2011

www.africon2011.co.za

13–15 September 2011 • Victoria Falls, Zambia

IEEE AFRICON presents a forum for electrical, electronic and IT research with related mechanical and civil engineering activities in Africa.

University of Cape Town, South Africa

Tech management president visits UCT

LUKE Maki, President of the IEEE Technology Management Council and senior network designer at Boeing, visited the IEEE Student Branch at the University of Cape Town (UCT) on 7 April.

He was greeted by the Executive Committee of the Student Branch including Branch Mentor Professor Mqhele Dlodlo, Chair Luyolo Magangane. Mr Maki gave a talk 'An Introduction to the Technology Management Council and Technical Communications' that was attended by 40 IEEE Student Branch members and UCT students. All attendees also had the opportunity to browse through the *Engineering Management Magazine* publication.

Luyolo Nqobile Magangane



Texas A&M University, Qatar

More than 120 attend Middle East Congress

IEEE Texas A&M University at Qatar Student Branch welcomed over 120 students and 21 industry speakers to the second IEEE Middle East Student Branch Congress (ME-SBC).

The four-day event, organised by the local branch, aimed to expose undergraduate students to the latest electrical engineering technology. The event was also sponsored by a variety of national

and local organisations, and IEEE.

Hamid Parsaei, Texas A&M at Qatar Associate Dean for Academic Affairs, opened the Congress. The conference featured discussion of senior design projects and workshops such as 'Research Development in Qatar', 'E-Car: Is it Really a Green Technology', 'Grid Design', 'Power and Energy', 'Industry Fundraising' and 'University Research Activities Related to

Innovation Processes in Industry'.

Other workshop topics included 'Leadership', 'International Engineering Professionalism: Global Perspective and Local Actions' and 'Condition Monitoring and Fault Diagnosis of Electric Motor Drive Systems Using Artificial Intelligence Techniques'.

Alicia Holland

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