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Second Time Machine forecasts technology beyond the year 2020

THE second IEEE Technology Time Machine (TTM) symposium was held from 23–25 May 2012 in Dresden, Germany. Speakers from industry, politics and research, forecast the future of technologies beyond the year 2020. More than



250 attended from 30 countries. The interest in technologies that are yet to come was extraordinary: executives need to form policies and individuals make decisions for a world that can be maintained in good condition.

The IEEE Future Directions Committee, formed in 2009, reflects IEEE's interest in future technologies. The FDC is dedicated to emerging technologies and to new applications of current technologies. It is interdisciplinary with initiatives ranging from cloud computing to transportation electrification, involving many IEEE societies and regions.

With Saxony sitting at the heart of Germany's semiconductor indus-

From the left: W Tonti (IEEE, FDC), Roberto de Marco (Chair of IEEE FDC), Maurizio Decina (General Chair, TTM 2012) and Gerhard Fettweis (Program Chair, TTM 2012)

...continued on page 2 ▶



EPICS leader recognised for GOLD achievement

ON 9 May, David Oyedokun (IEEE Region 8, South Africa Section) was awarded the IEEE Gold Achievement award "For inspirational leadership towards successful IEEE EPICS-High Projects, fostering member engagement, and empowering the community."

As a student of the University of Cape Town, he was presented with his award at an Engineering faculty event.

David has been providing leadership to a group of IEEE Student Branch members at the university. These students successfully installed a 300-litre solar geyser system at the Emasithandane Children's home and orphanage in a local township. The project also saw the installation of an array of 2.4kW solar panel system on the roof, which together with the solar geyser, will save the home around R900 (equivalent to \$110) every month in electricity. The project

was supported by industry and fostered a partnership with the Crossing Borders group from the University of Stuttgart in Germany. The total project is valued at (in terms of funding from IEEE, sponsorships from companies and partners) R357,000 (\$42,000).

Ongoing activities were organised with some local high school involving participants in interactive educational sessions, including a visit to Solariedirect Technologies, where they built a kilowatt array of solar panels. At the end of project, the students delivered a presentation on solar energy.

The project was highly praised by Francis Petersen, Dean of the Engineering Faculty at the University of Cape Town, and IEEE Past President (2011) Moshe Kam.

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Message from the R8 Director

IT has been a pleasure and a great honour for me to serve as IEEE Region 8 Director in 2011 and 2012.

As you know, our region is geographically the largest and culturally the most diverse of all IEEE regions. The Committee that organises activities includes all Section representatives, an operations committee, appointed mem-

...continued on page 2 ▶

IEEE Region 8 News to publish Jubilee book to mark 50 years

WE plan to celebrate the 50th anniversary of the IEEE Region 8 (Europe, Middle East and Africa) with a special Jubilee Issue in March 2013.

Our intention is to try to highlight the 50 years of growth from beginnings of several Sections to their current size and development. We will also try to capture the profiles of some of our members, with their contribution to the world and achievements over these years.

To set the tempo, take a look

how IEEE Region 8 News covered the 25th Anniversary. It's fascinating to read how people viewed the technical world then compared to the present day.

Please write to us to tell your stories, memories, achievements during the past. We'll select the most interesting and include them in a future issue. Any material about our profession, your Section, Society or individual member's development will be most welcome.



This is how we looked 25 years ago. Help us prepare a Jubilee issue of your IEEE memories

www.eurocon2013.org

eurocon 2013

info@eurocon2013.org

1–4 July 2013, Zagreb, CroatiaMARK your calendars for **IEEE EUROCON 2013!**

EUROCON is a multidisciplinary conference sponsored by IEEE Region 8, with its focus on emerging technologies. It covers a variety of topics in Information and Communications Technologies, Circuits & Systems for Signal Processing and Power & Energy.

EUROCON launched in 1971 in Lausanne and has since become the flagship of IEEE Region 8.

EUROCON 2013 will host the finals of the IEEE Region 8 Student Paper Contest. We look forward to seeing you in Zagreb!

For all details please see www.eurocon2013.org

Advance your IEEE membership grade

DIRK Van Hartem, Region 8 volunteer for membership development, explains the different grades of IEEE membership.

IEEE offers several kinds of membership. Associate members are those who do not have a higher degree in an IEEE-designated field of interest nor sufficient experience. However, it happens that many Associates can be Full members.

During registration, it is hard for IEEE staff to identify proper classification, and the IEEE designated fields became broader over the years. It is also likely that Associate members in Region 8 probably qualify to become Full members, paying the same fees but with more benefits such as: the ability to upgrade your membership further to Senior or Fellow of the IEEE, the eligibility to hold office and to vote in elections.

You simply need fill in the web form: www.ieee.org/organizations/mga/md/memelv.htm

In future issues of *IEEE Region 8 News* I'll explain eligibility for Senior member, which is the highest grade for which IEEE members can apply.

If you have any questions regarding qualification, please email dirk.vanhartem@ieee.org or contact your Section membership development officer.

The IEEE-designated fields are:

- Engineering
- Computer sciences and information technology
- Biological and medical sciences
- Mathematics
- Physical sciences
- Technical communications, education, management, law and policy

Historians gather in Pavia to discuss electrical tech

THE beautiful city of Pavia was the venue for the third HISTELCON meeting, held on 5–8 September in the 650-year-old University of Pavia and its Museum of Electrical Technology opened five years ago.

Fifty participants from 15 countries gathered for the meetings, which began in the small Lecture Theatre where Alessandro Volta addressed students 200 years ago. We were welcomed by the rector of the University and the mayor of Pavia. The mayor is an electrical engineering graduate of the University and he hosted a reception for conference participants in the evening.

The conference then moved to the spacious Aula Magna, built in the mid-19th century.

The final day was held in the museum, a short distance from the city centre. The origin of the collections was equipment gathered over time by the department of electrical engineering and enhanced by items collected by ENEL (the state electricity authority) and the telecommunications company SIRT. The areas of the museum open to the general public show the progress of electrical technology from Volta's time to the present day and give a glimpse into the future. A further section of

the museum allows visitors with special interests to study items in more detail.

The theme of the conference was the origin of electrical technologies. Thirty-five papers were presented over the three days. The first paper, appropriately, was a survey of Volta's battery and other early batteries. The remainder of the first day was then devoted to telecommunications themes. Papers on the second day focused on power topics and on computing and related topics. A mixed programme on the third day included papers on the history of Region 8 and on the role of history in engineering education. Together, they illustrated the breadth of electrical technology today.

Participants were invited to join a walking tour of the city centre, passing by the house where Volta lived and the house where, later, the teenage Albert Einstein lived when he spent a few years in Pavia.

The conference concluded with a dinner in the Museum. Professor Antonio Savini, the Director of the Museum and Chairman of the Conference Organising Committee, led tours of the museum throughout the evening.

Brian Bowers

EAB's role in the accreditation of engineering programs

CONTINUING my article in the June issue about IEEE Education Activities Board's support for pre-university education, I would like to outline the IEEE EAB's university and continuing education, and its Awards.

The IEEE has a key role in accreditation of engineering programs. The EAB assists accrediting bodies in engineering, computing and technology worldwide. Its role is to coordinate accreditation activities, assisting education and accrediting authorities. The EAB committee on global accreditation activities is active throughout the world.

IEEE supports the work of ABET in accrediting programs in US. In Peru, the EAB has worked with the Institute of Quality and Accreditation of Engineering Career and Technology Education. In the Caribbean, EAB helped establish

the Caribbean Accreditation Council for Engineering and Technology, which serves 12 English-speaking nations.

In Region 8, with support from volunteers, the intention is to establish an accrediting body in five to six countries of the Gulf region and an equivalent number in southern and eastern Africa. In China, a Working Group on Education in China has been set up, and in India, EAB has worked with the Indian National Accreditation and Assessment Council. A workshop held in India last year has its proceedings available on IEEE Xplore.

Find more information on the IEEE website by searching 'EAB'.
Tariq S Durrani
2010–2011
VP Education
Activities Board



Message from the R8 Director

► continued from page 1...

bers and several subcommittees, comprising 150 volunteers with a variety of technical backgrounds, from over 60 countries. It is this diversity and mutual respect that make IEEE Region 8 run so well, continuously growing in activities and members.

Region 8 has a strong and dedicated volunteer corps but there remain significant areas where IEEE presence is rather low. There is always room for more cooperation with local/national associations, organisations and educational institutions for mutual advantage.

I have great confidence that IEEE Region 8 will continue to grow and become more effective in fulfilling its mission as a highly regarded part of a truly transnational IEEE.

I give my best wishes to incoming Director, Martin Bastiaans, and to all of our volunteers and members in fulfilling this goal.

Marko Delimar

Region 8 Director 2011–2012

Technology Time Machine 2012

► continued from page 1...

try, excursions to the Volkswagen 'Transparent Factory' and to the Biotechnology Center of Technical University Dresden were popular, followed by an evening visit to the Albertinum Art Gallery.

At the symposium, plenary speaker Dr Truchard (CEO, National Instruments) pictured the increasing importance of software-based measurement systems. Peter Bauer (CEO, Infineon) depicted Infineon's goal of virtual microcontrollers attempting to leapfrog Moore's law, increasing electronic system performance while reducing costs.

Prof W Lehner (TU Dresden) described a solution to the increasing energy demanded by global internet.

How far will these projections meet reality? Gordon Moore forecast integrated circuit evolution.

The next IEEE TTM is planned for the USA, allowing us to refine visions and to keep track of the progress of predictions.

Maurizio Décina, Roberto de Marca, Gerhard Fettweis, Sebastian Zaunseder

Levent Onural's work is recognised with IEEE award

THE IEEE has honoured Levent Onural with the Haraden Pratt Award in recognition of his leadership in the worldwide promotion of the values embraced by the organisation.

An active and dedicated IEEE volunteer, Levent Onural has expanded IEEE's mission



of advancing technology for the benefit of humanity around the world.

Professional Activities Summit at SBC attracts nearly 100 participants

THE second Region 8 Professional Activities Summit was held at SBC 2012 congress in Madrid during the summer. Several Professional Activities Workshops centred on the professional topics for training students and GOLD members in non-technical, 'soft' skills essential for engineering careers.

Margaretha Eriksson (with workshops presented by Ali El-Mousa) led sessions on 'Effective communication' and 'From idea to product'; Han van Loon led 'STARS thought leader workshop', and Byron Soulopoulos from JCI led 'Take back control of your own future'.

Nearly 100 participants came to the half-day training sessions, including students, GOLD repre-



sentatives and some senior members from all over Region 8. More than 30 participants joined each workshop. The atmosphere was set in the beautiful surroundings of San Lorenzo de El Escorial.

Affirmative feedback from the workshops motivates the PASC team to organise local events all over Region 8, so please join us!

PASC team
r8pasc@ieee.org

EAB honours EPICS founders with Meritorious Service Citation

SAURABH Sinha from the South Africa Section and Kapil Dandekar from the Philadelphia Section were awarded the Educational Activities Board's Meritorious Service Citation at the IEEE Board meeting in November 2012. The citation reads "For spearheading the incorporation of the Engineering Projects in Community Service program in IEEE's educational activities, and expanding the program to Africa and South America."

The Engineering Projects in Community Service (EPICS) program brings together university students with high school students to do engineering projects that benefit their local communities. Sinha and Dandekar introduced EPICS into IEEE with two pilot projects started in 2009 and have been expanding it with Student Branches around the globe ever since.

Between 2009 and 2011, they started 27 new projects with the assistance from the IEEE Educational Activities staff.

The social impact has involved thousands, and the importance was expressed in the words of one of the students recruited to an EPICS project in South Africa, who wrote:



Kapil Dandekar (left) and Saurabh Sinha

"Personally it gives me immense pride to have contributed to something that has had a positive and lasting impact on my community. Based on surveys after the programme for high school learners and the network I have built as a young engineer through the programme, I can confidently state: this programme not only helps communities, it builds them. I strongly believe it is fitting that Dr Dandekar and Dr Sinha are given the recognition for an accomplishment that stands at the heart of the IEEE's motto: Advancing Technology for Humanity."

Sinha teaches at the University of Pretoria, Dandekar at Drexel University.

Yvonne Pelham, Manager
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Join the editorial team of IEEE Region 8 News

AS you will have noticed, *IEEE Region 8 News* features a great many articles from all across the region. This is a very good sign of how we are developing. At the same time, it demands an ever greater amount of work from the editors.

To enhance the quality and the quantity of articles we publish, we are putting out a call for volunteers to join the *IEEE Region 8 News* editorial team. Starting straight away, we need several people to help us prepare the Jubilee issue of the newsletter. In the longer term, we are searching for on-going associate editors.

Any IEEE member in Region 8 can apply. The kind of people we

are looking for are passionate about IEEE and volunteering. They need to have good English writing skills, of course, but verbal communication is just as important for dealing with other editors and members.

Some previous experience in writing or editing, such as for a school or university newsletter, would be useful. Volunteers will also need to be available for Skype sessions in order to work with the team, and may have the opportunity for travel if necessary.

If you are interested, please email the editors at r8news@ieee.org with your CV, expectations and any questions.

Zhijia Huang

From fuzzy logic to electric vehicles – webinars in R8

TWO continuing education webinars on very different subjects were conducted on 3 July.

The organising team comprised Saurabh Sinha (Region 8 vice-chair of Technical Activities) and Niovi Pavlidou (Region 8 Educational Activities). George Michael, Electronic Communications coordinator, provided technical support.

The first webinar, 'Fuzzy logic systems in educational assessment', was introduced by Niovi Pavlidou. He outlined the technical and education activities that have volunteer committees in Region 8.

The central speaker was Dr Riadh Besbes, an educational supervisor for secondary schools in Tunisia. The webinar was com-

pleted within one hour, including Q&A discussion.

Apart from some technical problems with the voice quality and lack of toll-free telephone connections, the WebEx process was a success.

The second webinar was 'Introduction to electric vehicles', and the speaker was Vladimir Katic, IEEE Serbia and Montenegro Section. This was promoted for members of IEEE Vehicular Technology Society in Region 8 and others.

Voice connections on WebEx can be achieved in parallel with Skype, and a VTS-affiliated webinar will be offered again. Please contact me for further assistance on continuing education.

Niovi Pavlidou

IEEE life insurance deal for the rest of us? It's here at last!

IEEE has announced a new global term life insurance plan offered in partnership with Clements Worldwide.

Many life insurance policies impose coverage limitations, making them inadequate for highly mobile IEEE members.

The new global term life insurance plan offers worldwide all causes coverage with no medical or blood tests required. This is guaranteed for active IEEE members. Limits of up to US\$500,000 are available.

Visit www.clements.com/ieeelife to find out more details. If you enrol early, you can receive 60 days complimentary coverage!



Your editors: Zhijia Huang and Roland Saam

IEEE is virtually unique in being run by volunteers

THE history of Region 8 is the topic being celebrated throughout this year and 2013. In our few printed pages, we try to bring you highlights of the many events that are happening.

There's something unique about IEEE because all of the technical societies and the members' activities are run by volunteers. Yes, we have staff in Piscataway and several places around the world, but they are very few, and very specialised as needed to support our large publications, standards and educational activities.

The IEEE Global History Network is a good example of an IEEE service which has worked out of vol-

unteer initiatives. Did you know that you can contribute your own experiences, narrative and comments? Although it is supported by the IEEE History Centre, the Global History Network belongs to the world: even non-members are encouraged to extend its contents.

Your editors Zhijia and Roland are working with Martin Bastiaans and Kurt Richter to add special articles for a commemorative issue in March 2013 to mark IEEE events through the past 50 years. We reproduce the front cover of the 25th Anniversary edition of *IEEE Region 8 News* on the front page of this issue for you to enjoy.

Roland Saam

THE IEEE Global History Network (GHN) is a website powered by MediaWiki with content generated only by IEEE members and invited experts.

Electrical, electronic, and computer technologies dramatically transformed the world during the 19th and 20th centuries. Today they are the cornerstones of humanity's material existence, and they will continue to be pow-

erful forces shaping lives in the 21st century.

GHN is one of the world's premier sites for the documentation, analysis and explanation of the history of electrical, electronic and computer technologies; the scientists, engineers and businesspeople who made them; and on the organisations to which these men and women belonged.

www.ieeeeghn.org

TechNav debuts Beta-test

THE IEEE Technology Navigator (TechNav) is an IEEE service on the web for finding technical information via IEEE resources.



TechNav uses the thesaurus from the IEEE Xplore® database. A search on a keyword finds all relevant IEEE resources, including societies, conferences, standards, publications, educational courses, and available job opportunities. It also displays applicable US patents that match specified queries.

Try it!

technav.ieee.org

IEEE region8news

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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@ieee.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.ieeer8.org → R8News Newsletter → Tips for contributors.

Deadlines for upcoming issues

Region 8 Jubilee Special Issuedeadline: 1 January 2013
June 2013 issuedeadline: 1 April 2013
September 2013 issuedeadline: 1 July 2013
December 2013 issuedeadline: 1 October 2013



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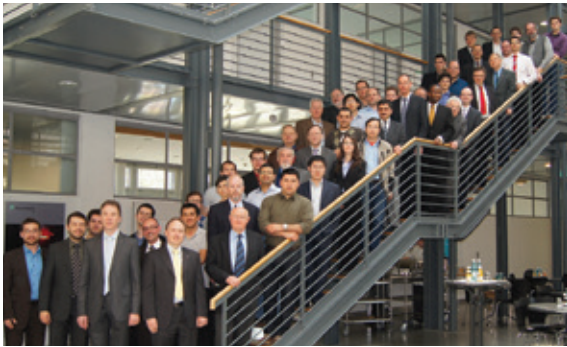
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Three IEEE chapters meet up in Freiburg, Germany's 'solar city'

THE German and the Austrian IEEE Joint IAS / PELS / IES Chapters, along with the Swiss IEEE PELS, visited Freiburg and the Fraunhofer Institute of Solar Energy Systems in March.

The official program began with a welcome by the chair of the German chapter, Axel Mertens, and the chair of the Swiss Chapter, Dr Ecklebe.

In order to get a first hand impression on the state of art of solar energy systems, Bruno Burger, head of the Power Electronic department, was our host. His department works with the whole power range from module inverters up to the MegaWatt class used in power plants.

Dirk Kranzer presented circuit designs and applications for wide-band gap devices.

Olivier Stalter talked about the challenges of integrating solar power generation (most

decentralised power generation) into an existing grid.

Sönke Rogalla enhanced this perspective to the utility scale power converters, up to 100mW.

Stefan Reichert closed the session with a presentation about the integration of solar power generation into the grids and the activities concerning e-mobility, here a compact, bi-directional cost optimised galvanic decoupled power charger for electric vehicles, trying to integrate their batteries into a grid.

The meeting ended with a tour of the Power Electronic manufacturer and the Megawatt Lab, where manufacturers can commission certification for inverters up to 1mW.

Andreas Wagener

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Keeping lines of communication open at PLC workshop in Rome

THE sixth Workshop on Power Line Communication was held in Rome, Italy, on 20–21 September. It was supported by IEEE Italy Section and the Technical Committee on Power Line Communication (COMSOC).

Several IEEE students and researchers came from four continents: Europe, America, Africa and Asia.

One keynote by Lutz Lampe, Distinguished Lecturer of the ComSoc for 2012, explored the history, present and future of power line communication.

The emerging theme of Smart Grids was the second keynote by Daniele Stein from Italian National Electric Company ENEL. The workshop included 17 technical papers.

Mauro Biagi

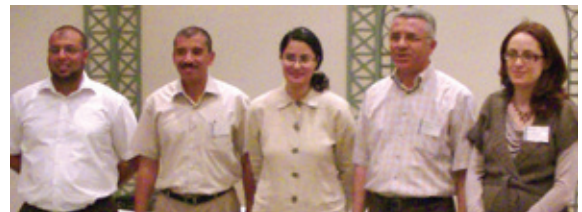
Italy Section

Colossus and Turing talk at Royal Society of Edinburgh

MEMBERS gathered to celebrate the 50th anniversary of IEEE UK&RI Section at the Royal Society of Edinburgh, Scotland.

A talk, 'Colossus and Turing, the world's first electronic computer and its use in cryptography' was delivered by Kevin Warwick, Professor of Cybernetics at the University of Reading. This illustrated how machines are catching up with human beings, where today one finds the responses of a machine

Optimisation techniques are highlighted in Tunisia



From the left: Amin Sallem (second-place in the contest), Mourad Fakhfakh (IEEE CEDA Tunisia Chapter Chair), Raja Maghrebi (contest winner), Chokri Abdelmoula (DTIS'12 Organisation Chair) and Manel Ben-Romdhane (member of the contest jury)

THE Tunisia IEEE Council on Electronic Design Automation Chapter had a very successful event on May 17: the third CEDA 'ENG-OPTIM' Contest: Engineering Applications of Optimisation Techniques.

It was a joint effort of six IEEE Tunisia Chapters – Circuits and Systems, Microwave Theory and Techniques, Systems Man & Cybernetics, Control Systems, Computational Intelligence, Industry Applications – together with the ENIS Student Branch and the WIE

and GOLD affinity groups.

The contest took place during the 7th International Conference on Design & Technology of Integrated Circuits in Nanoscale Era (DTIS) held in Gammarth, a sea-side resort on the Mediterranean sea, Tunisia.

Raja Maghrebi from University of Carthage won first prize for her work on parameters estimation of modulators models.

Mourad Fakhfakh

CEDA Tunis Chapter Chair



Cape Town hosts committee meeting of Noms & Appts

IEEE South Africa Section was pleased to host the Region 8 Nominations and Appointments Committee in Cape Town, South

Africa, on 20–22 August.

Members of N&A were invited to give technical presentations and discussed member and technical activities programs.

Talks included 'Super- and Smart Grid: from vision to reality?' by Marko Delimar (Croatia) and Terje Gjengedal (Norway), 'New scan and reconfigurable antennas' by Józef Modelski (Poland) and 'Time-frequency signal representation' by Martin Bastiaans (Netherlands).

Many chapter events were co-sponsored by the South African Institute of Electrical Engineers. Locations included Cape Peninsula University of Technology, Stellenbosch University and the University of Cape Town.

Joyce Mwangama

Chair, GOLD Affinity Group
joyce.mwangama@ieee.org



From the left: Hashem Zare-Hoseini, Mike Perrott and Peter Kennedy at CSR, Cambridge

ToM visits Ireland to take a close look at microelectronics

FOR the past six years, the IEEE Italy Solid-State Circuits Chapter has organised 'Topics on Microelectronics' short courses at the University of Pavia. They attract academic and industrial participants, primarily PhD students and design engineers from the south-Milan area.

The IEEE UK&RI SSC Chapter adopted the 'ToM' model in Ireland to serve the need for professional development in the microelectronic design industry. The first of two three-day ToM-IE courses took place at Tyndall National Institute, Cork, on 3–5 July.

Speakers included Tim Cummins of Silicon Labs, Analog Devices Fellow Colin Lyden, and IEEE Distinguished Lecturers Franco Maloberti and Mike Perrott. The program attracted over 40 participants from Analog Devices, Cypress Semiconductor, Microelectronic Circuits Centre Ireland, On Semiconductor, Powervation,

Finalists battle in thesis competition focusing on wireless communications

THE IEEE Vehicle Technology TS & AESS Joint Greece Chapter organised a Final/Diploma Thesis Competition (Academic Years 2009–2011) in the scientific field of advanced wireless communication systems with great success. There were 19 submissions from institutes all over Greece.

The final-round presentations and the awards ceremony took place on 17 February, with over 60 participants, students and academics, at the Aristotle University of Thessaloniki (AUTH). Two of the final round participants were not able to attend, so they presented their papers via Skype.

The winner of the Competition, Kampianakis Eleftherios from the Technical University of Crete, was awarded with an iPhone 4 by event sponsor Cosmote Mobile Telecommunications.

The finals can be watched online at



<http://ewh.ieee.org/r8/greece/avtc/events/eventsen67.html>. The symposium received congratulations from all the participants of the event, the students-candidates and their Thesis supervisors.

Stay tuned for our next events at <http://ewh.ieee.org/r8/greece/avtc>.

Kampianakis Eleftherios from the Technical University of Crete collects his winner's prize

Athanasios Iossifides
George Papadopoulos

VTS & AESS Joint Greece Chapter

S3 Group, Tyndall National Institute, University College Cork, and Xilinx.

On their way to ToM-IE, Maloberti and Perrott stopped over in the UK to present seminars to SSCS members at CSR Cambridge, Imperial College, and the University of Westminster in London. Local arrangements were made by Hashem Zare-Hoseini, Alex Casson, and Izzet Kale.

A second ToM-IE course was held on 15–17 October. For details, see www.microelectronicsevents.com.

Ghana Section enjoys a very busy autumn

ESTABLISHED in 2008, IEEE Ghana Section now has 216 active members, five Student Branches and a Joint Communications & Computer Chapter.

The Section has also established the IEEE International Conference on Adaptive Science (ICAST), with events held in Ghana (Accra 2007 and 2009, Kumasi 2012), Nigeria (Abuja 2011) and South Africa (Tshwane 2013).

Recent events have included the launch of Joint Communications/Computer Chapter. A launch event at Fiesta Royale Hotel in Accra on 28 September attracted the co-sponsorship of Ericsson Ghana.

The 4th IEEE ICAST, held on 25–27 October, focused on the themes of safety and security, education and training, ICT/technology, energy (electricity & oil/gas), environmental protection, road network and transportation, and genetic engineering. For details, see www.icast-conference.org/icast2012

IEEE Ghana Students Congress ran alongside ICAST at the Campus of KNUST in Kumasi. Every student in Ghana had the opportunity to present his/her ideas for evaluation and the chance to win an award.

Ghana Section's five student branches are at Kwame Nkrumah University of Science and Technology (KNUST), Pentecost University College (PUC), Regional Maritime University (RMU), Methodist University College (MUC) and All-Nations University College (ANUC). A technology innovation conference was recently held by the Student Branch at Pentecost University College in Accra.

In collaboration with the National Association of Black Engineers (NABE), Ghana Section is currently engaged on an EPICS project in two villages in the Bekwai of Ashanti Region of Ghana in an attempt to provide portable water and electricity.

Amaokoh Gyasi-Agyei
Ghana Section Chair

Past presidents lecture on engineering education at University of Pretoria



Back row (from the left): Sunil Maharaj (DEECE), Saurabh Sinha, Roelf Sandenbergh (Dean of Engineering), Ian Craig (President IFAC) and Gerhard Hancke. Front row: Leah Jamieson, Jan Malherbe and Michael Lightner

THE University of Pretoria, South Africa, was privileged to host two prominent IEEE volunteers on 22 May: past-presidents Michael Lightner and Leah Jamieson.

Michael Lightner, IEEE VP Educational Activities delivered a talk entitled 'Evolution or revolution? The pressures on engineering education'.

He suggested that boundaries are fading and that new specialties compete in an already over-

crowded curriculum. Computer tools challenge basic, traditional skills, while theories change and lab classes need to reflect modern engineering.

Online classrooms offer variety and possible economy with more personalised learning, he said, which challenges the role of the engineering professor. In many places, state support for higher education is decreasing.

The nature and form of higher

education in the USA and elsewhere is changing, and Prof Lightner offered his suggestions for the coming decade.

Leah Jamieson, President of the IEEE Foundation, spoke on 'Engineering education research: The growth of a discipline'.

This talk explored the research agenda that grew out of the education research Colloquies, sponsored by the US National Science Foundation in 2006.

Prof Jamieson described the process of creating the infrastructure that is needed for a new field, and gave her account of a recent survey of engineering faculties and deans in the United States.

Sunil Maharaj

Success story: Tunisian Touch Pad T216



Below: Mourad Fakhfakh and Chihed Bouattour (with tablet) with two PhD students, Mouna Kotti and Amin Sallem, members of the CEDA TN Chapter committee



THE IEEE Council on Electronic Design Automation Tunisia Chapter has begun organising a series of technical seminars called Success Stories.

These events invite young graduates working in electronic design automation to speak about their success. It provides an opportunity to encourage them to develop their own technical activity projects.

The first seminar was held on 25 April at the High Institute of Electronics and Communication of Sfax. Chihed Bouattour from ARTS Company (www.arts.tn) presented the first Tunisian Touch Pad 'T216'.

The seminar was a great success. Fifty persons, mainly graduate students, attended.

Numerous questions were asked about the difficulties ARTS faced when planning the project, the way ARTS' technicians gained insight and experience in the technical field, and how it is possible to build one's own project.

Mourad Fakhfakh
SM, CEDA TN Chapter Chair



UK&RI Section marks 50th with July events

THE United Kingdom and Republic of Ireland Section celebrated its formation with three events during July in London, Scotland and Ireland. Set up by the initiative of Section chairman Nihal Sinnadurai, they were sponsored by University of Greenwich, Heriot-Watt University, the Royal Society of Edinburgh and by the Irish Aviation Authority.

On 4 July, at the historic location on the Greenwich meridian, members gathered to hear from Chris Bailey talk about his team's work on the re-launch of a famous ship, *Cutty Sark*, at the museum.

The keynote by Mike Short, VP Public Affairs at Telefonica Europe, 'Digital century – who needs a compass?' told of progress in communications and forecast how things will connect in future.

The second celebration was on 6 July at the Royal Society of Edinburgh, Scotland's national academy.

The keynote 'Alan Turing: Colossus and the Turing Test' was delivered by Kevin Warwick, professor of Cybernetics at the University of Reading. Lunch was followed by a visit to the birthplace of James Clerk Maxwell.

The third celebration was held on 9 July at the Irish Aviation Authority Centre, Shannon – the base from which air traffic is managed off the west coast of Ireland.

The first keynote 'The Evolving Safety Cycle in Air Traffic Management' by Peter Nolan described the relevance of IEEE technical societies to the technical activities of the IAA.

In the second keynote, Jeff Voas of the USA's National Institute of Standards and Technology spoke about mobile apps needed to secure communications for personnel in military operations.

A visit to the control centre that manages Irish controlled airspace was an eye-opener.

Nihal Sinnadurai
UK&RI Section chair
ieee-ukri.org

Warsaw hosts Chapter Chairs meeting in May

DURING the 5th Microwave and Radar Week in Warsaw on 21 May, Region 8 Chapter chairmen assembled with coordinator Daniel Pasquet.

IEEE Microwave Theory and Technique Society (MTT-S) was represented by its president Nick Kolias, its past president Dick Snyder and several members of its AdCom.

Józef Modelski gave an overview of Region 8 and of MRW. Ryszard Romaniuk and Marek Jasinski presented the operations of IEEE Poland Section. Jan Machá and Dominique Schreurs from MTT-S explained chapter coordination with student activities.

A poster session organised in the middle of the meeting gave a special focus to the 40th anniversary of the IEEE Poland Section.

Thanks were given to Wojciech Krzysztofik for the outstanding organisation of this meeting.

Daniel Pasquet



N Kolias, J Machá, D Schreurs, J Modelski, R Snyder and W Krzysztofik among MTT-S volunteers attending the meeting



Energy problems at heart of this year's COMPENG

TWO years after the inaugural event hosted in Rome by the IEEE Italy Section in 2010, the second conference on Complexity in Engineering, COMPENG, was held in Aachen, Germany, on 11–13 June 2012.

It was organised by Antonello Monti, director of one of the Institutes of the E.ON Energy Research Center, a Public Private Partnership created in 2007 by the RWTH Aachen University and E.ON.

Energy Research Center enables 150 researchers to study energy and energy-saving problems. It carries out research on topics such as smart grid, power generation and storage, complex power system management and automation, indoor climate and efficient heating, applied geothermal energy and other 'green' energy sources. Also,

the IEEE Germany Section and the Instrumentation and Measurement Society gave their support and sponsorship.

While COMPENG was running, it was announced on TV that photovoltaics in Bavaria was producing 40% of the electrical energy for the province.

The conference attracted about 50 participants from Europe, US, Japan, Malaysia and China. The 32 papers are available on CD and in IEEE Xplore. Topics at COMPENG included Energy as a Multidisciplinary Problem, Modeling of Complex Processes, Complex Systems, and Security in Embedded Systems.

Interested colleagues may support the initiative by contacting me.

Silvano Donati
silvano.donati@ieee.org



Young authors on robotics honoured

IN September, IEEE Italy's Robotics and Automation Chapter held its annual dinner in Benevento with 35 participants, where we awarded the 4th Young Author Best Paper award 2012 to Giovanni Berselli and Gianluca Palli. Their paper: "Engineering design

of fluid-filled soft covers for robotic contact interfaces" was published in IEEE Transactions on Robotics.

Gianluca Antonelli

From the left: Gianluca Palli, Gianluca Antonelli and Giovanni Berselli

Signal processing forum in Vienna

ON 22 May, the second IEEE Forum on Signal Processing for Radio Frequency Systems (IEEE FSPRFS) was held at the Telecommunications Research Center Vienna (FTW), Austria. More than 40 attendees followed eight high-quality presentations covering many aspects of the merging fields of signal processing, RF systems, and circuit design.

The keynote 'Wireless communication receiver ICs: trends for 3G and LTE' was given by the inventor of Bluetooth wireless, Sven Mattisson from Ericsson Research.

The winner of forum's student contest was Shuli Chi from Graz University of Technology. She gave a talk on 'Coding efficiency for digital PWM-based RF transmitters'.

The event intends to be an open forum for discussing early stage research results and future trends as well as for starting and strengthening collaborations.

Andreas Springer and **Christian Vogel**, co-chairmen



Keynote speaker
Sven Mattisson



Iran Section holds Annual General Assembly in June

THE annual meeting of IEEE Iran Section was held 16 May alongside the 20th Iranian Conference on Electrical Engineering (ICEE'2012) at the University of Tehran.

After giving a report on Iran Section's activities, H Soltanian-Zadeh, Section chairman, spoke on its goals for promoting IEEE activities, such as membership development and elevation towards senior and fellow memberships, establishing active chapters, and encouraging industry for close collaborations.

At this meeting, H Kashani received the IEEE Iran Section Distinguished Professor award and M S Tavazoei was given the Young Investigator award. M Moallem, counsellor of Isfahan University of Technology, was honoured to receive the Outstanding Student

Branch Counsellor award. The IEEE Tarbiat Modares University Student Branch won the Student Branch award.

Activities of the student branches at the University of Kurdistan and Yazd Islamic Azad University were appreciated.

Finally, the Bachelor, Master and PhD Thesis Awards were given to F Irannejad from Isfahan University of Technology, M H Saadatzi from Khaje Nasir Toosi University of Technology and B M Ebrahimi from University of Tehran, respectively. For the first time, the Iran Section's Woman in Engineering Award was introduced and given to S D Kouzehkhanan from the University of Tehran.

Farzaneh Abdollahi
Iran Section

Computing security expert – student tips

UNIVERSITY of Bedford's Student Branch organised a workshop 'Securing a Career in Information Security' at which Mike Westmacott, chair of the British Computer Society Young Professionals Information Security Group, told the audience that employers were seeking candidates with some work experience.

Speaking to some 50 Bedfordshire computing security and forensics students at the workshop, Dr Westmacott explained that the IT network security industry was expanding, but getting graduates at entry level ready for the world of work remains a challenge.

"Gain your degree but also some industry experience through work placements or internships"



Mike Westmacott

he said, "to give you the edge over other graduates and better demonstrate your skills to potential employers."

Information security career options available to computer networking graduates include penetration testing (testing systems to prevent hacking), system and network forensics (analysing data files for criminal or unlawful downloads) and business continuity (alternative IT worksite and IT disaster recovery).

"Technical support and IT helpdesk roles are an excellent starting place to get on the ladder to becoming an expert in information security," advised Dr Westmacott.

The Student Branch, based in the University's Faculty of Creative Arts, Technologies and Science, was formed in 2010 and is seeking more partnerships with professional bodies and local businesses in Bedfordshire to provide computing and engineering students with valuable contact with industry.

Kevin Cunningham
University of Bedfordshire



Getting hands-on with the data control of spacecraft

TWO courses on spacecraft data processing and control techniques were held in May at the Institute of Space Technologies, Islamabad.

Participants got hands-on experience with Small Satellite Platform (SSP) which was developed for educational purposes. This has a wireless interface to data measured by different sensors. It also has controlling actuators - reaction wheels - for closed control loop position stabilisation in one dimension.

Trainees measured and processed data sent by platform sensors and used their outputs to de-

sign control algorithms of various types of devices - reaction wheel or the whole platform.

The workshop helped students of space system design to see the direct influence of different settings on spacecraft performance.

The lectures outlined the data needed for spacecraft stabilisation, and gave an analysis of sensors' required precision and problems while used in space. Class exercises calculated parameters to the International Standard Atmosphere; magnetometer principles for orientation; and gravitational field transformation.

ERK conference is held in Portorož

ON 17-19 September, the 21st International Electrotechnical and Computer Science Conference was organised by IEEE Slovenia Section.

The conference included papers on all major topics of Electrical Engineering, and a student paper contest.

Guest lectures from the Slovenian centre of excellence for space sciences and technologies presented work on PRISMA satellite.

Bernard Grum from IBM talked about how to bring science closer to people. Peter Pikl discussed electrical vehicles and Sami Haddadin talked about human-centred robotics. New generations of battery systems were presented.

This, the biggest annual event of IEEE Slovenia Section, also offered an opportunity for networking and re-uniting with friends. A gala dinner was held and the winners of the Student Papers Contest were announced. The conference attracted professionals from both university and industry and the number of students present this year increased as well.

Katarina Gašperlin
Chair, Ljubljana Student Branch
katarina.gasperlin@ieee.org

Successful Student Branch and GOLD Congress

At the end of July, Madrid was the proud host of Region 8 SBC. The local organising committee, together with SAC and GOLD committees, prepared a great program during which attendees learned and acquired new technical and soft skills.

The Congress was divided in several tracks – Student, GOLD, Professional Activities, and plenary sessions – so every attendee was able to find something interesting. It was four very intense and demanding days where students, aside learning, had a change to network among each other. Several social events served perfectly as a platform to exchange views and ideas between attendees.

During GOLD track, all young professionals had a chance to learn the tools and mechanisms of maintaining a healthy organisation. When meeting with Region 8 Operating Committee, GOLD participants had a chance to talk in the informal and friendly

atmosphere to Region 8's governing body.

Congress would not be the same without amazing food served by our Spanish friends. Students and GOLD had a chance to improve their skills, socialise and learn how to make the IEEE a better organisation. Job well done!

As the biggest student and GOLD event in our Region, SBC Madrid 2012 gathered together amazing and enthusiastic volunteers who gained new experience, skills and friends.

As 2012 draws to a close, it is time to review the accomplishments of your R8 GOLD committee within the last two years. The biggest achievement was definitely the IEEE Region 8 GOLD-Book released in 2011! This was followed by the great success of the second IEEE Day.

Much of our work went into electronic commu-

nication which was improved a great deal: a new GOLD website was built, new social networks are blooming, and communication among GOLD chairs is now well established.

GOLD teams from our Region were awarded with the Hall of Fame Award two years in the row.

We hope that the next GOLD committee will be able to gain even more attention in order to make IEEE a better organisation for all of us. Next year will bring new faces to the GOLD team but the momentum achieved by the current group is unstoppable we wish good luck to the newcomers.

Rafal Sliz

R8 GOLD Committee



GOLD sponsors Microsoft student technology event

MICROSOFT held its Student Technology Conference this year in Berlin. IEEE and the GOLD AG sponsored the event with support from local student branches and Michael Schoen, who maintains GOLD AG relationship with Microsoft Germany.

IEEE had a booth at the venue, together with Gesellschaft für Informatik, a German organisation partnering with the IEEE Computer Society. Martin Stötzer, Student

Branch Coordinator for the German Section who ran the booth, reached out to numerous students and other visitors.

Beyond the sponsoring, GOLD AG also participated actively during the event. Andreas Neumeier, GOLD Coordinator for the German Section, took part in the "Imagine Cup" software design competition as a member of the jury. Together with the general manager for Microsoft Learning, Lutz Ziob, the Microsoft Academic Lead, Lars Lippert, Oliver Bialas from the Audimax Medien publishing house and Alfred Zimmermann from Gesellschaft für Informatik reviewed the ideas and implementations for seven student projects.

The winning team, 'Greenway – the better way' won the competition and was awarded a ticket to the Imagine Cup international finals taking place in Sidney, Australia.

Andreas Neumeier

GOLD coordinator

Martin Stötzer

Student Branch coordinator



Dr. Lutz Lippert, Microsoft

Tunisia activities draw a crowd at Monastir's Science Palace



WITHIN a framework of cooperation between IEEE units in Tunisia and the Science Palace in Monastir, IEEE activities become increasingly better known which attracts more people to join the IEEE. The Palace is one of the best scientific venues in Tunisia, offering a good quality equipment and infrastructure to create an intellectual, cultural and scientific dynamics among the public.

On 28–30 June, the Education Tunisia Chapter co-organised with the Science Palace, in cooperation with Tunisia GOLD, a very successful workshop on graphical languages for industrial control as a good link between computer and instrument. More than 25 par-

ticipants (students, teachers and professionals) enjoyed three technical talks and three practical sessions presented by Mahdhi Abdelwahab, professor in the Higher Institute of Technological Studies (ISET) of Rades and consultant in Mechanical and Mechatronic Engineering.

Following the positive and encouraging reactions from participants and organisers, a further series of activities will be held.

For more details, see www.psm.rnu.tn.

Mohamed Mhamdi

Vice-chair, Education Tunisia Chapter

Habib M Kammoun

Chair, GOLD Tunisia



Participants follow their trainer during the workshop

Top speakers feature at summer school in flexible solar cells

AT the end of May, GOLD Finland organised a summer school in Flexible Solar Cells, focusing on the industry's increasing interests in renewable and cost effective energy production.

The vent was held in Oulu, the city in which Nokia has its mobile origins. In order to assure a high quality for the lectures, organisers invited high-profile speakers from Germany, Belgium and UK.

Attendees were mostly graduate students from Finland but also from elsewhere in Region 8 where we also have undergraduate students and industry representatives.

The intensive lectures opened with an introduction to the physics of solar cells, presented by Uli Wuerfel from Fraunhofer Institut für Solare Energie Systeme, Germany. This was followed by Tom Aernouts and Eszter Voroshazi from IMEC, Belgium, who gave a lecture on organic solar cells and their reliability. Finally, Arman Ahnood and Yuji Suzuki



from the London Centre for Nanotechnology, UK, talked on concepts of thin film silicon solar cells and implementation of micro- and nano-structures in solar cells.

The event gathered students and professionals from the printed electronics field who share the visions and dreams in which solar energy harvesting does not need to be rigid and could be inexpensively implemented everywhere.

Rafal Sliz
GOLD Finland



Another highly successful Egypt Engineering Day

EGYPTIAN Engineering Day took place in the CICC on 2–3 September. Amgad Ibrahim, chair of EED 2012, and Ahmed Darwish, chair of Egypt Section, opened the event. Hani Mahmoud, minister of Communication, representing the prime minister, shared a thoughtful speech about the event and the future of engineering in Egypt.

The opening ceremony was also attended by Essam Sharaf, Egypt's ex-prime minister; Ibrahim Ghoniem, minister of Education; Nadia Zokhary, minister for Scientific Research. Present among the attendees were the IEEE Egypt Sec-

tion board members, Ali El Mousa (Region 8 vice-chair for Membership Activities) and several CEOs from industry.

The program of the EED featured more than 30 speakers, 12 international speakers and three current CEOs. Different tracks ran in parallel: a Technical track covering top-level technology aspects, an Entrepreneurship track with real-life examples from Egyptian entrepreneurs sharing their success stories with young engineers, and a Soft Skills track presented by instructors.

The EED gallery was visited by around 9,000 visitors with more than 250 projects competing to show their hard work over the past year from over 32 universities in Egypt. Around 1,200 young engineers presented their work.

The EED also attracted nine projects from five other Arab countries: Tunisia, Palestine, Jordan, Lebanon and Libya. Architectural Engineering and Petroleum Engineering were the newest addition to the EED gallery.

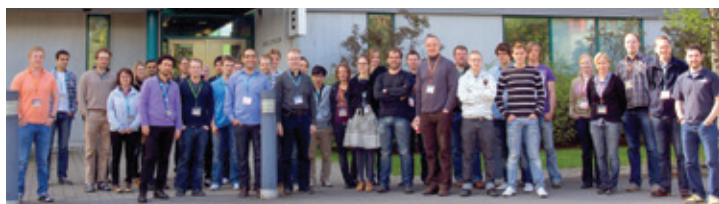
The Egyptian Engineering Day organised by IEEE GOLD Egypt has become an annual nexus for all Egyptian engineers.

The Made In Egypt Competition finals was another success for the seventh year in a row. Thirty teams out of 300 made it to the final judging round and the winners were announced at the closing ceremony. The Future City Competition was presented by the top ten teams, delivering the message: 'Today a student ... tomorrow an Engineer ... the future is ours'.

At the closing ceremony, 250 volunteers from GOLD and Student Branches celebrated their achievement for this successful event.

Hossam Ali

Vice chairman, GOLD Egypt





IMS AdCom members (from the left): Jenny Wirandi, Ferdinanda Ponci, Sarah Hatfield, Judy Scharmann, Kristen Donnell, Mihaela Albu and Ruth Dyer

WIM panel held at I2MTC in Graz

THE Instrumentation and Measurement Society (IMS) strives to continually support the needs of our female members and conference attendees. Half of the female AdCom members are from Region 8 and three of the vice presidents are also women, two of which from Region 8. For the IMS in particular, women have contributed to create a friendly and energetic environment in the AdCom, which makes the meetings and committee work enjoyable and looked forward.

At the 2012 International Instrumentation and Measurement Technology Conference (I2MTC) in Graz, Austria, on 15 May, the IMS was pleased to host the Women in Instrumentation and Measurement (WIM) Panel Discussion. It was chaired by Kristen Donnell and featured panellists with different careers.

The panellists told their personal experiences, including the influence of family on career choices, business travel safety, academia vs industry career path, and challenges faced by women in the position of leadership.

New perspectives were brought up, among which the importance of professional validation and the 'excellent-or-nothing' approach of many top female students, who may stay away from engineering for fear of 'just average' performance, hence missing out.

The panellists compared life as a woman in engineering from European and American perspectives.

Further plans are already under way for the WIM Panel at I2MTC 2013 in Minneapolis, Minnesota, USA.

Kristen Donnell, kristen.donnell@mst.edu

Ferdinanda Ponci, ponci@ieee.org

WIE-Region 8 Coordinator

University of Patras, Greece

Biomedical engineering for ambitious students

FOR the first time in Greece, Hellenic Startup in Bio-Med: Uncovering Endless Opportunities was organised on 26 April by the IEEE SB and the IEEE EMBS Student Chapter of the University of Patras, in cooperation with the Hellenic Start-Up Association (HSA) and Co-Lab Workspace.

Students, professors and entrepreneurs, distinguished in their field, spoke on Greece's future through entrepreneurship and its connection with students. Entrepreneurs advised ambitious young students to help them realise their creativity while responding to contemporary social needs.

The last and main part of the event was the Bio-med Contest, where ten groups presented their business ideas based on the needs and principles of the biomedical engineering scientific field, with awards up to €1,000.

Eirini Kaisari

Final year roundup from your Region 8 Student Activities team

AFTER a very active year in 2012 which climaxed with the Student Branch and GOLD Congress in Madrid in July, your Region 8 Student Activities Team is looking forward to an exciting year ahead with many contests, competitions and events that you can take part in. Here are the results of this year's awards.

● **2012 IEEE Regional Exemplary Student Branch:** German Jordanian University (Jordan) – Global finalist

American University of Beirut (Lebanon)

Alexandria Student Branch (Egypt)

Arab Academy for Science & Technology (Egypt)

Middle East Technical University (Turkey)

Cairo University Student Branch (Egypt)

University of Central Greece (Greece)

● **2012 IEEE Student Branch Website Contest:**

1st place: Instituto Superior Técnico Student Branch (Portugal)

2nd place: TEI Piraeus Student Branch (Greece)

3rd place: Pretoria Student Branch (South-Africa)

● **2012 IEEE Larry K Wilson Regional Student Activities Award:**

Piotr Graca (Student Branch Opole, Poland)

Event: 3rd International Students Conference on Electrodynamics and Mechatronics

● **IEEE Outstanding Branch Counsellor and Advisor Award (2012 R8 Nominees):**

Mohmed Khairy, Cairo University SB (Egypt)

Osama Abu Sharkh, Princess Sumaya University of Technology SB (Jordan)

Mohammad Nazzal, German Jordanian University SB (Jordan)

Kakarountas Athanasios, University of Central Greece SB (Greece)

Deadline Day

The unified deadline for applying for awards and contests will be on 1 February 2013. Keep this date in mind and nominate your members, branch, website or counsellor for the awards listed above.

Student Paper Contest

SPC is a long-running IEEE activity for undergraduate and MSc IEEE students. Each local contest is at the Student Branch level, with the winner(s) going on to compete against their peers in Region 8.

SPC 2013 calls were sent to Region 8 Student Branch chairs and counsellors, and all R8 student members will get a SPC13 reminder. The deadline is 15 December. An international Jury will review the accepted papers anonymously and select five best for Oral Finals at EUROCON 2013 in July, Zagreb, Croatia. Let us make a more successful SPC 2013!

Regional Student Branch Congresses

2013 will, again, be a busy year for cross section SBCs! If you're in the middle of Europe, you'll have the chance to attend the second Central European SBC (CEuSBC), this time in Opole, Poland. Students in Portugal and Spain will again get together for the



The Region 8 SAC team with the SBC 2012 organising team in Madrid

Iberian Student Branch Congress (ISBC) for its third edition in Porto, Portugal. Beirut, Lebanon will be the host of the hugely successful Middle East SBC (ME-SBC), already scheduled to take place during the last week of May. If you are near any of these locations, we'd love for you to join us.

New and improved SAC chat sessions

The SAC Chat session has been one of our most popular features in the past which offers members a chance to interact directly with SAC member and ask any questions regarding their activities.

In April, we moved our SAC Chat sessions from a text-based platform to the more interactive IEEE WebEx platform which offers the ability to present slides, speaker audio, polling, chat and Q&A features. This move is part of our ongoing initiative to improve and personalise member access to information about IEEE programs and initiatives, and also give them a chance to interact with us. All of these sessions are recorded and are available on the R8 SAC website.

Region 8 Student Activities website

We have moved! The R8 SAC website has a new home on the Region 8 website: www.ieeeer8.org/category/student-activities. In the last few months, we have been working hard to transfer all the information to the new website and make it more streamlined with the rest of the region programs.

Region 8 50th Anniversary Student Activities Contest

To celebrate IEEE Region 8's 50th anniversary, SAC is organising a contest for Student Branches across the Region. You can participate by recording video or taking photos of your events. Many prizes will be awarded for the best submissions. For more details please check the IEEE 50th Anniversary Contest on Facebook and the Region 8 Student Activities website.

Online Reporting

We couldn't end this article without mentioning online reporting. Please remember to submit your yearly activity report/plan at sbr.vtools.ieee.org, either in May or in the two months following the end of your academic year. Also submit your election results at officers.vtools.ieee.org, the new officer reporting system.

Even if your officers haven't changed, make sure you end and restart their term, so your reporting is in order.

Elias, Eva, Jorge, George, Jef, Simay, Sohaib and Hosam

Arab Academy for Science, Technology and Maritime Transport, Cairo, Egypt

Roving underwater: Egypt's Mate ROV competitors

THE Student Branch of Arab Academy for Science, Technology and Maritime Transport in Cairo hosted a seminar about 'Underwater remotely operated vehicles' in January.

This vehicle is primarily used for deep-water exploitation and industries having a working depth down to 6,000m. They are used for developing gas and oil reserves at depths that man cannot reach.

After the seminar, a team of 28 engineering students entered the 2012 Mate ROV Regional Competition. With three months of learning

and hard work, we found a new way of working with students from different majors. After lots of workshops, seminars to get the right knowledge and skills, and 300 hours of student involvement, we made our ROV *Shelby*.

It is an ROV made from ¾-inch PVC tubes for its main body and 1½-inch for its base tubes in a symmetrical shape, with four motors for controlling, two cameras for monitoring and two water pumps to implement tasks of the competition. We also added a metal detector and a robotic arm.

The Mate ROV Regional Competition was held in April, and we can proudly say that the project enabled the students and ourselves with many skills needed in technical and practical life.

Ahmed Abd El Raouf
Chair, Student Branch



Educational activities track in Madrid is well-attended

IEEE Region 8 Pre-University Works committee organised the educational activities track at the Region 8 Student Branch Congress in Madrid, Spain. The educational activities track included workshops on IEEE's Teacher In-Service Programme and Engineering Projects in Community Service initiatives as well as a new initiative called IEEE Academic Project – Innovating Education.

All of these workshops were well received and were attended by participants, IEEE professional staff partners and dignitaries alike, including IEEE president-elect Peter Staecker and IEEE Pre-Education

Coordinating Committee chair, Liz Burd.

IEEE past-president Moshe Kam delivered a presentation on EPICS together with Sohaib Qamar Sheikh, Joyce Mwanagama and Maciej Borówka. Further presentations were about the new **TryComputing.org** portal and IEEE's social innovation programmes.

Presentation slides of all of these workshops can be found at the Region 8 Student Branch and GOLD congress website, which is at www.sbcmadrid.es.

Sohaib Qamar Sheikh
R8 Pre-University Coordinator

Technical University of Lisbon, Portugal Top tips for IST freshmen

ON 21 September, IEEE-IST Student Branch organised a productivity workshop to welcome freshmen (first-year students) to the university and to share some tips to help them on keep up with their studies.

More than 60 interested participants attended from a total of roughly 150 freshmen. It is hoped that the workshop has shown them

how to get things done efficiently.

This workshop was given in a collaboration of:

Google Student Ambassador for Portugal: <http://gplus.to/gsppt>

IEEE-IST Student Branch: www.ieee-ist.org

IEEE-IST Computer Society Student Chapter: www.ieee-ist.org/cs

David Dias



400 participate in 2012 Student Branch and GOLD Congress

THIS year, Madrid was host city for the 8th bi-annual IEEE Region 8 Student Branch and GOLD Congress (SBC 2012), the flagship student and GOLD event in the region. Following in the footsteps of London (2008) and Leuven (2010), the 2012 edition had a special flavour to it, being the 50th anniversary celebration of Region 8.

The congress attracted around 400 attendees (up from 215 just four years ago), including 300 student members from all corners of Europe, Middle East and Africa. The list also included the Regional Student Representatives from Regions 2 and 10, as well as 24 attendees from Region 9. We were happy to welcome IEEE Past President Moshe Kam, IEEE President Gordon Day, IEEE President-Elect Peter Staecker and the entire Region 8 OpCom, as well as many other global IEEE volunteers and staff.

The already legendary multicultural even-

ing once again lived up to its reputation. With participants from 53 different countries, the diversity was everywhere and, by some accounts, you could even call it overwhelming.

Diversity could also be found in the congress program, with a mix of technical, non-technical and IEEE topics thrown in. There were opportunities to ask questions of the next Region 8 director in the Director-Elect Candidate debate, and to be rewarded for their volunteer efforts in the SAC/GOLD award session. Perhaps most important were the many chances to network and exchange experiences which took place around the clock.

Congratulations to the SBC Madrid team for an amazing event and thank you to those who attended. To all readers, hope to see you at the next one!

Jorge Miguel Soares

Region 8 Student Representative

jorgesoares@ieee.org

What made SBC special? Surely the continuation of friendships

HAVING attended more than 200 international and regional IEEE events, the one that stands out highly in our region is the Student Branch Congress and GOLD Congress, hosted in Madrid this year.

There were technical and non-technical tracks. Support and advice was given to our student and GOLD leaders in IEEE technical society and council chapter volunteer opportunities, and in educational activities.

A Teacher In-Service Programme workshop was hosted, complemented by other activities of the IEEE Educational Activities Board such as Engineering Projects In Community Service (EPICS).

Some were hosted in partnership with professional staff of IEEE Educational Activities. Rui Costa's presentation on education innovation highlighted the dynamism expected from university graduates. Universities today tend to produce those who function better as in-



dividuals than in teams. His presentation showed new resources for teaching technical topics in a university classroom. Much of Rui's material is also available online: see youtu.be/ecQKJt0aNNM

Proposals for a Mediterranean SBC/GOLD congress have emerged; quests for a middle-eastern TISP workshop; a high level of communication in various Facebook groups and Google circles.

What made the Madrid congress most successful were the follow-on events and the role social media and networking, renewing our interactions and friendship.

Saurabh Sinha

Region 8 VC Technical Activities

ssinha@ieee.org

Volunteers celebrate at the gala dinner event

University of Osijek, Croatia

Lectures and events keep Osijek students motivated

IEEE SB Osijek in Croatia is constantly motivating students by organising lectures, workshops and student paper contests that help improve their scientific knowledge and skills.

This spring, the Branch's first organised lecture, 'How to write scientific papers and thesis, featured two lecturers, Tomislav Matic and Krno Milicevic, who gave writing guidelines and basic rules to an audience of more than 70 students. A two-day workshop followed on 'Using LaTeX for writing papers', taught by Alfonso.

We also organised a series of events in May:

- A panel discussion regarding 'Energetic in Croatia – do we have a solution?' with three invited speakers who discussed nuclear energy, renewable energy sources and Croatian energy sector.

- 20 students paid a short visit to local Siemens facility.

- Three branch members made a four-day visit to CERN in Switzerland.

- Four SB Osijek members attended the STEP event organised by IEEE SB Split and another STEP organised by IEEE SB Rijeka.

- IEEE SB Osijek chair along with seven other IEEE Croatia student members attended the Region 8 Student Branch congress in Madrid.

A new IEEE Computer Society student chapter was formed at the University of J J Strossmayer in Osijek in July.

IEEE SB Osijek chair Josip Balen and past chair Davor Karlovic won the IEEE Computer Society's Richard E Merwin Scholarship and currently serve us as student ambassador for IEEE Computer Society.

Josip Balen

IEEE SB Osijek Chair

Davor Karlovic

IEEE SB Rijeka Past Chair



Alexandria University, Egypt

Interacting with today's world in Alexandria

FOR the sixth year, AlexSB organised an 'Interact with Today's World' conference, held on 15–17 at Bibliotheca Alexandrina.

The first video conference session was about wireless electricity, given by David Schatz from MIT. Speakers at the conference included Ali El-Moussa (IEEE Region 8 vice-chairman), Mohammed Sanad, Hisham Haddara (CEO of an Egyptian fabless semiconductor and MEMS company Si-Ware). The conference attracted 760 attendees and has reshaped the career choices of many engineers.

Mohamed Megahed

Secretary IEEE Alexandria Student branch

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American University of Beirut, Lebanon

Comms comp picks winners

AUB hosted the 2nd IEEE Lebanon Communications Student Competition (LCSC'12) on 7 July, organised by the Communications Society Lebanon Chapter with the help of the AUB Student Branch and sponsored by Alfa, National Instruments Arabia and Lebanese Association for Scientific Research.

Thirty teams from 12 universities across Lebanon competed on the basis of their final year projects. About 100 people attended.

Three winning teams were awarded cash prizes in addition to recognition certificates: Riham Pharaoun, Mahmoud Al Ahmar and Abdulkader Rokaya (AUST) for 'i-Display using smart phone application'; Hassan Hawilo, Kassem Al Sabea, Tofik Ghandour and Ibrahim Hijazi (BAU) for 'IEEE 802.16e mobile WiMAX uplink PHY-layer Matlab simulation and FPGA hardware implementation'; and Nour El Mawass (LU) for 'Improving the efficiency of wireless sensor networks using the principles of genomic robustness'.

Natasha Maalouf

www.comsoc-lebanon.org



University of Applied Sciences, Bielefeld, Germany

Student energy

THE Student Branch visited DB Energie in Frankfurt Germany in July, organised by Timo Wißman.

We visited the converting station of the DB in Borken (Hessen, Germany) where two mechanical converters were surveyed. One was down because of an inspection while the other was intact.

The other part of the converting station was the outdoor switchgear within a bucking coil, which is necessary for the secure running of the DB Energie Netz. We then took a survey of the main switch room and took part in a simulation of the energy consumption market, which requires covering a simulated city.

Jens Haubrock



Caledonian College of Engineering, Oman

Marble-cutting teaches the importance of load demand

ON 23 September, students of Caledonian College of Engineering (CCE) visited Shanfari Marble Company (SMC) in Muscat, Oman.

The visit offered an excellent opportunity to learn about the different aspects of latest marble cutting processes and the role of electrical power-driven motors.

Fahad Awad Al Shanfari of SMC gave details about the quality of Oman marble and its chemical components, and helped the students understand the need for electrical load demand in working environment of such industry.

Dharmasa Pawar

'electrical energy from source to destination'. Almost 40 students with various backgrounds and staff attended the lecture.

Branch Counsellor Dharmasa started the talk by introducing power system components, different types of energy sources and principles of generation at low, medium and high scale. In the later part, he mentioned the need demand of green energies in Oman, electrical safety, conservation of energy in the industrial planning.

The industry oriented talk was highly informative and was well received by the IEEE student members and staff.

Lulubhah Hatif

WIE-IEEE, CCE-IEEE, Oman

Delft University of Technology, Netherlands

Touring major sites of radio astronomy

ON 4 October, 35 PhD students of the Photonics Society Benelux Chapter and the Student Branch Delft set out to visit ASTRON, Netherlands' Institute for Radio Astronomy. It is the world-class radio astronomy facilities located in the northeast of the Netherlands.

Starting from the iconic Westerbork Synthesis Radio Telescope (WSRT), we travelled to the heart of the Low Frequency Array (LOFAR), and also observed the initial test receivers for the Square Kilometre Array (SKA). The European LOFAR telescope opens up a new window on the Universe by observing at very low radio frequencies (10–240MHz). It is an important scientific and technological pathfinder for the next generation of radio telescopes, the Square Kilometre Array (SKA), a global project which is to be built in Australia and South Africa.

Next to astronomy and antenna design, there was a special focus on optical data communication and processing, enabling the array technology.

Special thanks to Peter Maat from ASTRON for the fantastic visit.

W J Westerveld



CCE Student Chapter also organised a special talk on 9 October on



Caledonian College of Engineering, Oman

Visit provides detailed overview of switchgear operations

ON 22 April, CCE-IEEE Student Chapter organised a one-day visit for the students to give them a detailed overview of switchgear operations in Electrical Power System at Al Hassan Switchgear Manufacturing, Oman. The study trip was accompanied by Dr Dharmasa (CCE-IEEE branch counsellor), Asma Irfan and Ferose Habeebulla, faculty of CCE.

A technical video and lecture session was presented by Al Hassan team at their conference hall with an objective to enhance the students' knowledge about the safety, manufacturing and trading process and also what it takes to make a successful career in the power industry. Students then visited various departments such as assembly, design of

various voltage level products and services to meet national and international standards. Al Hassan updated its role in innovative design like Supervisory Control and Data Acquisition (SCADA). During the visit, the workshop floor was thrown open for an interactive Q&A session followed by a detailed walkthrough of industry. Students were interested to learn about the thought behind introducing innovative products and services that make a difference to customers.

The CCE-IEEE Student Chapter will continue to organise such worthwhile study trips for the CCE student community.

Dr Dharmasa

CCE-IEEE SB Counsellor, Oman

PSUT, Amman, Jordan

Recycling paper can win you prizes

THE IEEE-PSUT SB has started a paper recycling competition ('Invest your paper waste'). All student members need to do is bring their unwanted papers to a collection point booth in the hallway between the engineering and IT building. The students

who recycle the paper might also win 40 JDs prize. The winner was announced in May with a session about recycling in laui shammout auditorium.

Feras Shadid

Chairman, IEEE PSUT



Johannes Kepler University, Linz, Austria

Linz students go on visit to CERN

A DELEGATION of the IEEE Student Branch JKU Linz, Austria, took a once-in-a-lifetime opportunity to visit the nuclear research centre CERN on 27 September.

Located in the Swiss canton of Geneva, CERN is the place where, since 1954, the European Organisation for Nuclear Research has been conducting research at the very forefront of physical understanding.

On-site, the 48 students witnessed experiments carried out by researchers and engineers from all over the world. One such was the

neutrino experiment OPERA, which had a measurement error that suggested that Neutrinos may be faster than the speed of light.

We also visited the detectors ATLAS and CMS, which are part of the Large Hadron Collider.

Thanks to the great support of retired particle physicist Peter Schmid, it was possible to get a live impression of the research conducted at CERN and to have discussions with researchers.

Christian Schmid, vice-secretary
Bernd Gruber, secretary

Federal University of Technology, Owerri, Nigeria

From classroom to reality – workshops for being practical

ON 21 March 2012, the Federal University of Technology, Owerri, Student Branch organised a seminar on 21 March, attracting 106 participants.

The Head of Department of Electrical and Electronic Engineering, F K Opara, gave an opening speech. It was followed by Chair of IEEE Nigeria Section, Gloria Chukwudebe who also welcomed the participants.

The event began with a lecture on 'Transforming classroom theories to practical reality' by Oluseyi Ogubenro of Electronic Development Institute, Awka, Nigeria. He highlighted the need for students to form practical working groups, acquire necessary tools needed for practical application of classroom theories and use simulation software in their practicals.



Dr Mbaocha presented the second lecture on 'Writing effective project reports'. He discussed the general guidelines on writing such reports and he gave a template for seminar and project reports. He also emphasised the differences between APA and IEEE citation and references styles.

Finally, the chair of the Student Branch, David Okerefor, shared the SB website with the audience (www.ieeefuto.org).

David Okerefor

Chair, Student Branch



University Institute of Lisbon, Portugal

ISCTE founds Student Branch

ON 23 April, during the 2012 edition of ISCTE-IUL School of Technology and Architecture Forum (FISTA'2012) a new Student Branch was presented to the ISCTE-IUL community and the petition for its establishment was formally submitted.

This was a proud moment for the founding student members hoping to become part of the world's most important network of knowledge and innovation in technology, as well as for the ISCTE-IUL School of Technology and Architecture (ISTA).

President of ISTA, Francisco Cercas, stated it was a key event for the university during the celebrations of the 40th anniversary of ISCTE-IUL. A special thanks to the representatives of other Portuguese Student Branches and to the Portugal Section, in particular, João Barata Oliveira (SB of Universidade Nova de Lisboa), and Rita Raimundo (Event Coordinator from IEEE Portugal Section.)

Paulo Alexandre Gil

IEEE ISCTE-IUL Student Branch
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IEEE Student Branch Ljubljana, Slovenia

Student papers heard at ERK

IN September, IEEE Slovenia section organised its annual student paper contest at the 21st ERK conference in Portorož, Slovenia.

Twelve papers from both Slovenian Student Branches were selected. After oral presentations, the jury chose the three best projects.

The winner was Urban Kuhar from the University of Ljubljana, who will participate in IEEE Region

8 SPC. Second and third prize belonged to Mladen Borovič, from the University of Maribor and Kristjan Saksida from the University of Ljubljana.

The Student Branch is also planning to establish a Women in Engineering Affinity Group.

Nina Kunšič

IEEE Student Branch Ljubljana
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Al-Balqa'a Applied University, Jordan

Printed circuit boards session opens workshop season at BAU

AL-BALQA'A Applied University Student Branch (IEEE-BAU) organised three workshops this year for its members.

The first workshop was about PIC-microcontroller which aimed to teach the students what PIC is, why we use it, and how we connect the PIC with the circuit when we use it. Another workshop concerned printed circuit boards, at which students were introduced to the devices, tools and chemical substances for making PCBs. During the workshop, the Lecturer printed an actual circuit and demonstrated it step by step.

The workshops benefited students a lot and got them one step closer to real-life applications.

The third workshop organised by IEEE-BAU members was 'Team Book', under the supervision of Billal Ayyoub. Through this workshop, he showed the students the importance of teamwork and how each individual is responsible to making team work successful. He also inspired students by showing



them many different videos and stories about scientists and how they overcame all the difficulties to achieve what we all make use of in our daily lives.

In conclusion, these workshops really inspired many students and taught them how to think and work as engineers.

Thaer AL-Hwaiti
IEEE-BAU



Hamburg University of Technology, Germany

Hamburg students set off on comms trip to Munich

FROM 28 May to 1 June, the IEEE Student Branch of the Hamburg University of Technology (TUHH) sent 20 students and their counselor Hermann Rohling to Munich to visit the Student Branch in Munich and two companies.

The first highlight of the trip was a visit to Rohde & Schwarz, a well-known company for excellent measurement and communication technology. Several technical talks were given on interesting topics, such as LTE, GSM and software-defined radios.

The Branch members visited MBDA in Schrodenshausen the next day. The company profile and several technical presentations were given in the new conference area. Radar technique and powerful radar systems were shown in the lab

environment and in an impressive technical tour.

Furthermore, a meeting with the Student Branch of the TU Munich was another fruitful highlight. Good business is always done between people. From this point of view, it was very interesting to exchange all experiences between the two Branches and to develop future plans. Both branches are going to continue in this detailed exchange procedure and will make the connection between Hamburg and Munich even stronger.

The final stop of the Munich trip was the visit to the Deutsches Museum. For more information about our IEEE Student Branch and future events please visit our website: www.ieee-student-branch.de

Prof Rohling, Matthias Heitz



Federal University of Technology Owerri, Nigeria

SPC winner

THE Student Branch student paper contest started with a welcome speech from the chair of Nigeria Section, Gloria Chukwudebe, in which she highlighted on the importance of Paper Contests.

This was followed by opening speech given by the Head of Department of Electrical and Electronic Engineering, during which he addressed the importance of the contest. He praised the Branch's chair for organising the contest.

In June, Ezugworie Dominic (above) emerged as the winner.

Saviour Ikechi

Döğuş University, Istanbul, Turkey

PROJISTOR competition runs over several days to find best projects

THE Electronics and Communications Engineering Department (ECED) of Döğuş University and its Student Branch have given high priority to vocational and technical progress from inception until today. One such activity is the PROJISTOR project contest that took place in May this year with the cooperation of IEEE Turkey's Circuits and Systems Chapter.

Twelve seminars presented by executives and professionals reporting their experiences and achievements were the activities of the first two days. A jury of five, two from industry and three from academia, worked hard to reach a decision on selecting the first three places. Of the first 23 applicants, the number was first reduced six finalists.

First prize went to 'Camera stabilizing platform' by S Sohmelioglu and K Izgol from Döğuş University; second prize went to 'Waste oil gen-

erator' by C Karacizmeli, also from Döğuş University; and third prize went to 'Mobile charge unit by M C Ozdemir from Ist Tech Univ. All prize winners received a cash prize and certificate.

Elif Cepni, rector of Döğuş University, and Izzet Cem Goknar, head of Döğuş University ECED, presented the awards and gave the closing speeches congratulating the winners.

Cem Goknar



University of Jordan

Guiding new graduates

FROM 14-17 July, an initiative entitled 'Eye On The Future' was organised by the student union in the University of Jordan.

The objective of this initiative was to guide and enlighten freshly graduated high school students in their choice of major. The Branch participated in this event by arranging a booth in which IEEE and WIE volunteers and executive committees helped to promote IEEE with brochures and copies of IEEE Spectrum.

Ala' Al-Hiary

Secretary, University of Jordan
Student Branch

National Engineering School of Sfax, Tunisia

Tunisian Student Branches come together for the first time

FOLLOWING the establishment of four Student Branches in Tunisia (ENIT, ENIS, ENSI, and Sup'Com), the first meeting of the Tunisian Student Branches was held on 2 June in the National Engineering School of Sfax (ENIS) organised by the Tunisia section and the GOLD Tunisia AG. It was an opportunity to network as well as to mentor and to assist new volunteers and also to exchange experiences and thoughts, and to implement new ideas.

The meeting started off by welcoming words by Mourad Loulou, Section chair, and Mourad Zghal, Student Activities coordinator. Then each Student Branch reported its 2011–2012 activities and presented a 2013

plan. Organisers of new Student Branches in other locations talked about the advancement of the SB establishment process.

The afternoon session focused on best practices. Habib Kammoun, GOLD Tunisia AG chair, presented good ways to recruit new volunteers and to manage the Branch.

Before the closing session, Habib made a proposal to organise the 1st Tunisian Student Branch congress, including a special contest between Branches, Technical, Professional and Educational activities.

Habib Kammoun

<http://sites.ieee.org/tunisia-goldtsbm2012>



National Technical University of Athens, Greece

Second Job Fair Athens helps students prepare for life in the job market

AFTER the success of last year's corresponding event, the Student Branch and EESTEC of National Technical University of Athens (NTUA) organised a second 'Job Fair Athens'. It is a career day that aims to help students and young graduates to come into contact with the labour market and seek opportunities.

The Job Fair, after six months of preparation, opened its doors to the public on 30 May at Technopolis of the Municipality of Athens, Greece. Representatives from 44 companies willingly provided the attendants with important information to participants. More than

1,100 young students and graduates who attended the event had the opportunity to visit the stands of the companies in order to meet and discuss the job opportunities and submit their CV. Interesting lectures, contests and other events for the preparation of the attendants took place before and during the day itself, such as CV training, entrepreneurship events and workshops on forming a startup.

Overall, the event was very successful and all have an appointment for next year!

Nasia Stavropoulou

www.job-fair.gr

Ibra College of Technology, Oman

Students' final project wins major award in national creativity forum

IBRA College of Technology Student Branch members Areej Sulaiman Hamad Al-Ghunaimi, Ibrahim Saif Amer Al-Maawali and Arnold Santos (project supervisor) won a major award in Oman's 1st Students' Creativity Forum held at Oman International Exhibition Center in Muscat on 8–10 May.

Their project 'Electronic water softener' involved the use of a microcontroller to produce varying very low frequency (VLF) signals on induction coils wrapped around a galvanised iron pipe. When charged

ions such as calcium and carbonate pass through the coils, they experience an induced pulsing electrical fields which provide the necessary molecular (ion) opposing redirection of the charged mineral ions, increasing the number of collisions such that, nucleation and precipitation occurs. The ions are converted to insoluble calcite crystals and the level of saturation of the water significantly decreases, thus, reducing the level of water hardness.

Arnold Santos

Student Branch Counsellor



Opole University of Technology, Poland

NTech Workshop takes three Branches on tour

ON 21–26 May, the IEEE Opole University of Technology Student Branch, together with student research group ELEDYN and under the patronage of IEEE Poland Section, led the first edition of the national students' project IEEE NTech Workshop 2012.

The goal of the 'New technologies workshop' was to increase participants' scientific knowledge in the fields of electrical engineering, telecommunication, computing and mechatronics by visiting foreign research centres and meeting with professionals and other IEEE friends.

During the one-week journey, 21 students from three Student Branches – Opole, Krakow and

Szczecin – went by bus through the Czech Republic, Germany and Austria. The participants attended lectures and took a guided tour of DLR (the National Research Center for Aeronautics and Space in Oberpfaffenhofen), TUM University in Munich, GE Global Research in Garching and IPP (Max Planck Institute for Plasma Physics) in Garching.

The students also visited the Automatica 2012 fair and were able to explore beautiful Bavaria. Finally, the participants had an opportunity to meet and spend time with colleagues from student branches in Prague, Munich and Linz.

Piotr Graca

Chair, Opole Student Branch

Oman Section

NDT and ISMS tech seminars



IEEE-OMAN section organised two technical seminars on 9 October focusing on the latest developments and challenges in the area of Non-Destructive Testing (NDT) and Information Security Management System (ISMS) in industrial environments.

The seminars took place at the National Oil and Gas Exhibition Center of the Sultanate of Oman, in cooperation with the Oman Society of Engineers (OSE) and in partnership with TUV Rheinland.

Anil Kumar, from TUV Rheinland in India, presented some of the pre-service and in-service plant

inspection methods using the most advanced non-destructive testing techniques. Oliver Weissmann, from Information Security of the TÜV Rheinland AG, tackled a very interesting topic that outlined all the mechanics of an information security management system directly applicable in industrial environments.

The event also had invited Muhammad Bin Aref Abu-Zaki, board members of OSE representing the transportation and communications sector, and Ahmed Al-Naamany, Oman Section chairman.

Arnold Santos

Student Branch Counsellor