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Kids build own robots at two Spanish workshops

TWO workshops on 'robotics for kids' have been held in Catalonia, Spain, with another two to follow later this year, all of them organised by the UNED Student Branch under the leadership and co-ordination of Cecili Exposito with the essential collaboration and outstanding support from Nuria Girbau.

The main objective of those workshops is to engender children with a passion for technology and the sciences, stimulating an early

on the question 'What is a robot for you?' Each team shared their views and an initial definition was established based on this input. A second and more formal definition was obtained after watching videos that showed several different types of industrial robots.

A third debate was generated on the question of whether a robot can simulate the behaviour of an alligator, with a short video about alligator shown.

After these introductory steps, the kids were ready to start, beginning with an explanation of the phases of creating a robotic project, and some tips construction and robot programming, after which they were ready to construct and test their project.

The workshop went on to analyze the working principles of robotics, designed to clarify the level of understanding and fixing concepts by asking questions about possible changes to be made and consequences of these changes, in this case about the alligator.

The second workshop was devoted to a build a more industrial robot capable of reading and follow a trajectory. Strong emphasis was put on design and construction. The teachers and students had a lot of fun during the workshops and can't wait for the third.

Hector Puyosa

Educational Activities Chairman
Spain Section



interest in the study of both by playing with concepts from diverse disciplines such as mathematics, physics, mechanics, electronics and computing.

During the first workshop, children aged 10–12 years built a simple robot based on the model of an alligator, doing comparative exercise between the movements of a robot and a human being.

The first workshop began by splitting the children into teams which then held internal debates

Hungary celebrates 25 years within IEEE

IN the frame of IEEE Day 2012, a festive meeting was held to celebrate the 25th anniversary of Hungary Section on 6 November last year at Óbuda University, Budapest.

István Vajda, the Section's vice-chair, welcomed the participants, followed by an opening address by founding chair Tibor Vámos, and a summary of the Section's 25 years by current chair Imre Rudas.

Neighbouring Sections sent their greetings, with Igor Kuzle and Aleksandar Szabo from Croatia, Paul Svasta from Romania, and Peter Farkas from Slovakia in attendance.

Péter Kádár, chair-elect, gave an overview of recent activities, followed by an award ceremony and a Distinguished Lecture by robotics specialist John Hollerbach. The event ended with a Life Member meeting.

The establishment and boundaries of IEEE Hungary Section were approved on 21 August 1987. The Section conducts activities which assist the local IEEE members to enhance their professional careers and their communities. The local legal entity of IEEE Hungary Section is the *Villamosmérnökök Magyarországi Egyesülete*.

Peter Kadar

Chair Elect, Hungary Section



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Kenya Section sets out to empower the visually impaired via mobile

Pictured from the left: Juliana Kivasu (Kenya Society for the Blind), Vincent Kaabunga (Kenya Section chair) and Moses Gichanga (Automated Systems Research)

ON 13 February, an EPICS project was launched to provide access for visually impaired persons to educational content on mobile devices with a Memorandum of Understanding between Kenya Section, Automated Systems Research and Kenya Society for the Blind.

Under the project, five Student

Branch members will work under the supervision of ASR to implement an automated system that will enable visually impaired people to access SMS and email-based content using low-cost mobile phones. Eight visually impaired pre-university students from the Kenya Integrated Education Programme will also participate.

The project is being supported by Samsung under its initiative to develop local content for the mobile platform.

It is envisaged that the system will ultimately become a revenue generator for the society when made available to the public.

Vincent Kaabunga



Technical Activities report... and looking ahead

DURING 2011/12, the vice-chair for Technical Activities worked with standing coordinators and subcommittees to provide a better service for members in the Region 8.

We strived to close the geographical gap by promoting the IEEE subscription to WebEx and the InterCall teleconference facility. While the usage has gained momentum, more socialisation and training is required.

The chapter coordination subcommittee (ChCSC) held both in-person and web-based chapter chairs meetings (CCMs) at which we have identified the opportunity for sections to establish some 500 new chapters in Region 8. Through vTools, section chairs are reminded to constantly monitor chapter activity and provide support where possible.

The conference coordination subcommittee (CoCSC) has progressed towards attracting more events for technical and financial co-sponsorship. Support for bids for large 'flagship' conferences (such

as ICC 2017) has been provided to chapters. The CoCSC has also held a webinar on financial issues, including the management of conference insurance and taxes, where the new mechanism of conference registration using ICX (IEEE Conference Exchange) is now in place.

The educational activities subcommittee (EASC) pioneers our pre-university works (PUW), continuing education (CE) and university activities. Through the recent sponsorship for translating the TryEngineering portal into Arabic, an interest to organise a Teacher In-Service Programme (TISP) supported by local volunteers in the Gulf and North Africa is being developed.

The EASC interacts regularly with IEEE's Educational Activities Board to identify new opportunities. An interest towards developing informal museum exhibits, for instance E-Scientia, is another PUW.

The industry relations subcommittee (IRSC) has held a number of meetings and interactions towards finalising documentation for the Re-

gion 8 industry awards for industrial professionals and companies. The IRSC has also finalised the role of the section-level industry relations officer (IRO), as well as providing a summary of the roles. A mechanism for regular feedback from IROs has also been established through IEEE Fluid Surveys.

The standards coordinator worked closely with IEEE-Standards Association (IEEE-SA) and the IEEE-SA & EAB joint Standards Education Committee (SEC). In cooperation with the mentioned entities, cooperation with our flagship conferences such as EnergyCon, workshops on demystifying IEEE standards were held. Smaller scale or similar sized events are being planned for Euro-Con'13 and Africon'13.

SEC and PUW have worked together to generate an early interest among pre-university students on IEEE standards. Standards activities have also been held at university level and for industry professionals.

The ad hoc coordinators for publications and future technical

coordination have renewed the linkages with IEEE Sales and Marketing towards developing access to the IEEE/IET electronic library (IEL – commonly known as IEEE Xplore) and future technical areas, respectively.

The approach has started to deliver in some areas, for instance, in France, but slower in other areas. Another area of interest is to develop IEEE Xplore further by including local/regional publications of high quality.

As this is my final report as vice-chair of Technical Activities, I extend my hearty thanks to all Region 8 committee members for their kind support over 2011/12.

The vice-chair, together with ad hoc and standing committee chairs and coordinators, will work with the new team for 2013/14 and ensure a smooth transition.

Saurabh Sinha
ssinha@ieee.org
2011/12 Vice-Chair
for Technical
Activities



A webinar entitled 'Risk Assessment & Risk Management' was held on 28 February by the organising team comprised by Carl Debono (vice-chair for Technical Activities), Niovi Pavlidou (coordinator for Educational Activities Sub-Committee [EASC]) and George Papadopoulos (volunteer for EASC).

The webinar was aimed at members of the IEEE Industry Applications Society (IAS) and IEEE Power & Energy Society (PES) in Region 8. The event was disseminated through the IEEE e-Notice service, and through the Region's Continuing Education (CE) Section Officers mailing lists, resulting in 88 registrations via the IEEE's vtools platform. The event was conducted using WebEx facilities and the attendance was considered satisfactory with about 30 participants.

Niovi Pavlidou welcomed the participants and introduced various subcommittees relating to technical activities, with emphasis on educational activities in Region 8. The central speaker of the webinar was Professor Ali Hessami of Vega Systems, UK, and the webinar lasted about one hour.

Continuing Education (CE) webinars – catch up now on what you have missed

The event hosts were pleased with the enthusiasm of the audience, who congratulated both the organisation and the presentation through emails and through the WebEx instant messaging system. The successful event was recorded on the WebEx platform and is available to everyone for free at the EASC website: www.ieee8.org/category/continuing-education-works/ce-webinars. Stay tuned to our future events.

Learn how to fail!

An earlier webinar entitled 'How to Fail EMC in Ten Easy Lessons' was held on 13 December 2012 by the organising team comprising Saurabh Sinha (2011/12 vice-chair for Technical Activities), Niovi Pavlidou and George Papadopoulos.

This webinar was targeted at members of the IEEE Electromagnetic Compatibility (EMC) Society in Region 8. Again, it was adver-

tised through the IEEE e-Notice service and conducted using WebEx facilities, lasting about an hour and a half. The central speaker of the webinar was Elya Joffe, distinguished lecturer for the IEEE EMC Society.

The event was recorded on WebEx and is available to everyone for free at <http://newton.ee.auth.gr/cfe.ieee/activities.html>.

Industrial automation

More recently, two more EASC Continuing Education webinars were held in May this year.

The first was entitled 'Industrial Automation', taking place on 9 May and delivered by Kevit Desai from Centurion Systems, Nairobi, Kenya. It was targeted at Region 8 members of the IEEE Components, Packaging and Manufacturing Technology Society; the Industrial Electronics Society (IES); and the Industry Applications Society (IAS).

The other webinar, entitled 'Computer in Parallel', was held on 16 May, presented by Nikos Pitisanis from Aristotle University of Thessaloniki, Greece. It was aimed at members of the IEEE Computer Society in Region 8, attracting some 50 attendees.

Niovi Pavlidou welcomed participants to both webinars and introduced various subcommittee's related technical activities with emphasis on educational activities in Region 8. Once again, the webinars were delivered using WebEx facilities and technically hosted by George Papadopoulos.

These most recent events were recorded and are available to everyone for free at the EASC website: www.ieee8.org/category/continuing-education-works/ce-webinars.

George Papadopoulos
Volunteer for
Educational
Activities



Niovi Pavlidou
Coordinator
for Educational
Activities

Region 8 gets pre-university students involved with engineering activities through exciting workshops



Above: TISP 2.0 brings lessons directly to school students, organised by Portugal Section's IST Student Branch

PRE-UNIVERSITY Works (PUW) is a sub-committee under the Educational Activities Sub-Committee (EASC) with the aim of encouraging activities related to pre-university education in the Region. We focus on two major programmes of IEEE Educational Activities Board (EAB): the Teacher In-Service Program (TISP) and Engineering Projects in Community Service (EPICS-in-IEEE).

Besides these programmes, we would like to encourage our members to organise any pre-

university activities that may be beneficial to the school students.

TISP is a professional development workshop presented by IEEE volunteers to pre-university educators to help them bring exciting hands-on lessons into their class-



rooms. The source of these ideas are from the tryengineering.org and trycomputing.org portals, which provide a pre-university resource for parents, students, educators and school counsellors available in nine languages. IEEE Volunteers are trained to conduct TISP workshops by 'TISP champions'. Last year, PUW conducted TISP training workshops across the region in Spain, Greece, Turkey, Jordan, Lebanon, Poland and Portugal.

EPICS-in-IEEE is a community service program by which university students try to resolve a problem in their community with help of high school students and a local Non-Governmental Organisation (NGO). Approved projects are funded by the EPICS-in-IEEE committee to in the range of several thousand dollars.

We have seen a number of successful projects in Africa and one in Belgium so far but still need to expand and bring awareness to members in Europe and the Mid-

dle East. Over last year, we have conducted seven EPICS awareness workshops in the region.

We would like to take this opportunity to highlight the following sections and student branches who are already running a number of programmes for pre-university students:

- IST Student Branch in Portugal Section has initiated a programme entitled 'TISP 2.0' to bring TISP lessons directly to school students.

- UK&RI Section has recently submitted an IEEE foundation grant application in collaboration with King's College London for a programme called 'Cosmic Rays in UK Schools' (CORUS) which aims to install cosmic ray detectors in schools around the country.

- Sweden Section GOLD/WIE/SAC Committee has approved and started work towards a pre-university programme and is contacting schools to explore options.

- Students at the GJU Student Branch in Jordan have started a 'Lab on Wheels' project to provide under-privileged schools in different provinces in Jordan with portable lab equipped with proper equipment.

- Students at Alex Student Branch in Egypt are organising a series of evening workshops for pre-university students to introduce them to the fields of robotics, home automation and programming through educational games.

- The UCG Student Branch in Greece organised a 'TISP 2.0' workshop for school students in Lamia, Greece, and plan to take it nationwide.

To help members learn more about TISP and EPICS-in-IEEE, we have published a resource library on our website which includes presentations, webinars and step-by-step cookbooks to organise these programmes. Search for 'IEEE R8 PUW' for more information.

If you are organising any related activities or know any local IEEE entity who is doing it, please get in touch with us at r8puw@ieee.org and we'll provide support.

Sohaib Qamar Sheikh
Pre-University Coordinator

The man who revolutionised the microphone (not once but twice) wins IEEE/RSE acclamation

At a ceremony at the Royal Society of Edinburgh (RSE), UK, Professor Gerhard Sessler of the Darmstadt University of Technology in Germany was presented with the Wolfson James Clerk Maxwell Award by Prince Philip, the Duke of Edinburgh.

Also in attendance was Gordon Day, President of the IEEE, who read the citation. The Award is jointly sponsored by the IEEE and the RSE, and is bestowed annually "for groundbreaking contributions that have had an exceptional impact on the development of electronics and electrical engineering or related fields". It is funded by the British company Wolfson Microelectronics.

Gerhard Sessler has helped revolutionise the modern microphone market twice during his career.

Working at Bell Laboratories in Murray Hill, New Jersey, USA, Dr Sessler and co-worker James West invented the polymer electret condenser microphone in 1962, which provided high performance at a smaller size and lower cost. The technology was commercialized in 1968 and soon became the world's dominant microphone, replacing the carbon-button trans-



Gerhard Sessler (right) receives the Maxwell Award from Prince Philip, the Duke of Edinburgh.

ducer that had been used in telephones for the previous 100 years.

At the Darmstadt University, Dr Sessler, working with Dietmar Hohm, designed the first microelectromechanical systems (MEMS) condenser microphone based on silicon micromachining in 1983. His lab developed refined micromachining techniques, enabling creation of miniaturised microphones with superior electroacoustics. These microphones were introduced

to the market in 2002 and are used mostly in mobile phones, laptops, hearing aids and other mobile devices.

Also at Darmstadt, Dr Sessler developed the laser-induced pressure-pulse method for investigating charge and polarisation distributions in thin polymer films with micrometer resolution. This has become a leading method for mapping electroactive polymers and polymers used for cable insulation.





Your editors: Zhijia Huang and Roland Saam

Thanks for the feedback on our 50th Jubilee issue

THE *IEEE Region 8 News* editorial team was really pleased to see the Jubilee issue distributed to the members all around the region. Members who attended the Region 8 Committee meeting in Madrid, where the 50th anniversary was officially celebrated, have given us great feedback. We are also glad to receive comments from other members through email and other ways. We appreciate the help from the Jubilee book workgroup and everyone who contributed.

In 2013, the Region has a new director, vice-chairs and their team as well as new section chairs joining the Committee. We would like to welcome everyone who has worked on their new volunteer role since January and please feel free to tell us about the activities you have held or are currently organising.

We too would like to reach out to more volunteers to help with *IEEE Region 8 News* and introduc-

ing more forms of communication.

We have been really impressed by the quantity and quality of volunteer work by our members recently, especially student and GOLD members. This is in part due to the hard work by the Educational Activities Sub-Committee and the VC, whose report you can read in this issue alongside news about a new initiative from Kenya EPICS to provide educational products to visually impaired students, the continuation of the 'Lab on Wheels' project in Jordan, the first TISP workshop in Spain, and much more.

We encourage volunteers in the Region to report more on these great projects. The *IEEE Region 8 News* team can also submit articles to other IEEE newsletters to bring awareness of the great job you have done in the Region, so that you can receive more help and advice.

Zhijia Huang
Editor

AHCAA sees conferences as key to professional development

THE IEEE Ad Hoc Committee on Africa Activities (AHCAA) is a committee of the Board of Directors which works with other groups, including Continuing Education (CE), students, universities, conferences and collaboration.

The Committee worked with the Region 8 CE group to conduct a survey on continuing professional development (CPD), a major goal for many members resident in Africa. The team made recommendations for developing leadership in Africa through organising IEEE conferences and that the Technical Activities Board (TAB) proposes more IEEE Society and Council conferences to be hosted in Africa. The committee also tries to ensure that conferences host tracks outside each event.

The approach could also assist to contextualise the conference

for local or regional persons. Collaboration with national and sister Societies, as well as multi-lateral organisations, including New Partnership for Africa's Development (NEPAD), came out as a strong recommendation.

With the overlap of IEEE AHCAA activities, which by default ceases its operation at the end of 2012, the recommendation is to move the operations of IEEE AHCAA to the Working Group: IEEE-UNESCO and IEEE Ad Hoc Committee on Humanitarian Activities (IEEE AHCHA).

The committee wishes to extend special thanks to all its members, but in particular to the work of and support from Saurabh Sinha.

Zac Oyedokun
Chair, Ad Hoc Committee on Africa Activities

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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

November 2013 issue deadline: 1 September 2013
February 2014 issue deadline: 1 December 2013
May 2014 issue deadline: 1 March 2014
August 2014 issue deadline: 1 June 2014



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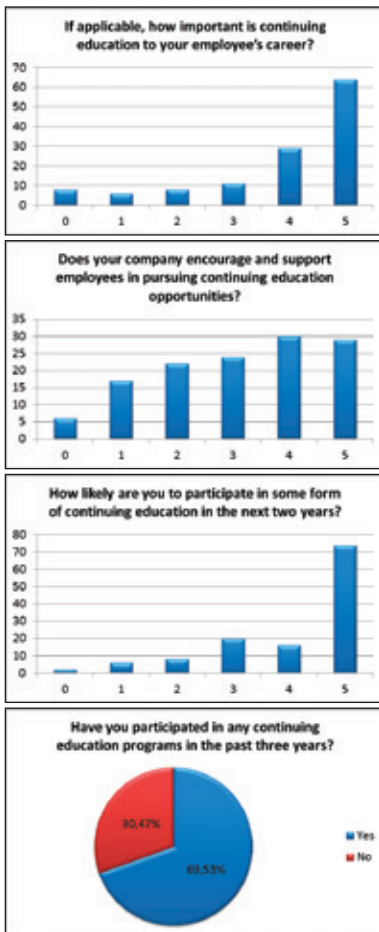
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Can IEEE help with your continuing education? Our survey finds out



THE IEEE Region 8 Continuing Education (CE) team, together with the Continuing Professional Development (CPD) Working Group of the IEEE Ad Hoc Committee on Africa Activities (IEEE AHCAA), conducted a survey during November and December last year targeting the African community.

One of the aims was to determine whether there would be any interest by local or national professional societies in partnering with IEEE to extend access to the eLearning at local/national levels in Africa.

Another aim was to try to develop a baseline in terms of CPD resources available in various countries.

The survey's online questionnaire was created with the help of George Michael and distributed using the IEEE e-notice tool to 21,687 members in Africa, receiving 134 responses.

The most important results of the survey are summarised in the charts shown on the left.

Wherever a rating scale is applicable, it is ranged from 0 to 5, where 0 represents 'Don't know' or 'Not aware'.

All the charts and the answers given in text by the participants are provided in detail in the Continuing Education Forum (CEF) website.

George Papadopoulos
Niovi Pavlidou
Continuing Education

How to use WebEx teleconferencing in order to host your Section events

MANY Sections in our Region are geographically large. To help connect distant members, starting 2011, Region 8 began hosting a number of webinars using WebEx.

This service is available at no cost for IEEE Section events.

Here's how to set up a webinar:

1. Set up a regular event using IEEE vTools: <https://meetings.vtools.ieee.org/main/login>. Enable the 'registration' link to keep track of who may be your attendees.
2. Promote your event. Use either your own SAMIEEE mailing lists, or use IEEE e-Notice: <http://www.ieee.org/organizations/vols/e-notice/e-notice-submit.html>. Social media, such as Facebook Groups, Google Plus, etc can be a great way to promote your event.
3. At least five working days in advance of your event, request a WebEx event setup:

<http://sites.ieee.org/vtools/products/webex/webex-registration>. Your request will be processed by the IEEE Member and Geographic Activities (MGA) Information Management team (mga-im@ieee.org).

4. During your event, you can record the WebEx session. For more details, see: www.ieee.org/about/volunteers/remote_conferencing/index.html#sect2

5. Following your event, remember to submit an L-31 report (using vTools) and also submit a short article to *IEEE Region 8 News* or other media.

(Steps 1 and 2 could be skipped if you want to setup a WebEx event for a smaller event, such as a Section ExCom meeting).

Best of luck with your webinars!

Saurabh Sinha
ssinha@ieee.org



GISWORX workshops build on mobile, cloud and online

UAE Section participated in GISWORX 13 held from 2-4 April in Dubai, UAE.

Workshops presented the latest location and GIS technology, building upon the popular outcome of our initiatives on mobile, cloud and online. It also further explored how users in UAE and the region can further extend the use

of GIS towards mobile and Cloud computing.

IEEE UAE Section was presented in this event by student members from several active Student Branches of UAE University, the Petroleum Institute, the American University in Dubai and the American University of Sharjah.

Noura HAFID



IEEE Day is an early Christmas for SOS Children's Villages

IN celebration of IEEE Day on 2 October last year, the Committee of the IEEE VTS & AESS Joint Greece Chapter visited the SOS Children's Village of Plagiar, Thessaloniki, Greece.

They brought as gifts a PC, an encyclopedia and school material for the children hosted in the village.

The children and village officers accepted the presents with great joy. For more events, see <http://ewh.ieee.org/r8/greece/avtc>.

George Papadopoulos
Secretary, VTS & AESS
Joint Greece Chapter
Supporting Team Member,
Continuing Education

EU-funded conference in Beirut focuses on renewable energies

THE first International Conference on Renewable Energies for Developing Countries (REDEC 2012) was held in Beirut, Lebanon, from 28-29 November last year.

More than 120 participants enjoyed the free event, the cost being completely funded by the EU Ressel-Medbuild Project and the IEEE Lebanon Section. It allowed many undergraduate and graduate students to take part in the 50 oral technical presentations during the 12 technical sessions. The conference received 82 submissions from 27 different countries.

The conference featured, three keynote speakers: Ansgar Kiene from World Future Council Foundation, Jean-Claude Tourret from the Institute of the Mediterranean, and Joachim Koschikowski from Fraunhofer ISE, each of whom were invited to talk on the use and exploitation of renewable energy.

Hadi Kanaan
(on behalf of the REDEC 2012 Organising Committee)



MTT-S Region 8 Ambassadors with MTT-S MGA officers (from the left): Mike Golio, Jan Macháč, Bela Szendrenyi, Shmuel Auster, Daniel Pasquet, Felix Yanovski and Wojciech Krzysztofik.

Region 8's MTT-S Chapter chairs meet in Amsterdam

THE annual meeting of 43 MTT-S Chapters and Joint Chapters in Region 8 took place alongside European Microwave Week (EuMW) in Amsterdam from 29 October to 2 November 2012.

The meeting provided an opportunity to exchange experience among the individual Chapters, share best practices, clarify goals with IEEE MTT-S and to explain the support given. Chapter chairs outside Region 8 and Chapter of-

ficers from AP and ED societies were also invited, making a total of 45 participants.

Jan Macháč, MTT-S MGA co-ordinator, introduced a 'Region 8 MTT-S Ambassadors' project, aiming to work personally with Chapter chairs and other Chapter officers.

Daniel Pasquet is Region 8's Chapter co-ordinator and MTT-S AdCom member, and Bela Szendrenyi is MTT-S MGA Membership co-chair.

Investigating world-class electromagnetics pulses



The panel session encouraged some lively discussion

DELFT University of Technology, the Netherlands and the University of Hong Kong held a workshop on 18–19 March entitled 'Pulsed Electromagnetic Fields: Their Potentialities, Computation and Evaluation'.

The programme included 11 invited talks, with topics ranging from the mathematical and physical foundations of pulsed-field propagation, through front-line electromagnetic computational tools, to cutting edge applications in such diverse areas as optics, billion transistor integrated circuits or deep space exploration.

The event concluded with an animated discussion panel session on the place of the ultra-short pulsed electromagnetic field in next-generation applications.

The workshop also provided an appropriate environment for paying a tribute to the lifetime achievements of Professor Adrianus de Hoop in the vast field of wave phenomena.

Ioan Lager
i.e.lager@tudelft.nl

Lebanon Communication Workshop attracts 200 participants to University of Balamand

THE 6th IEEE Lebanon Communication Workshop 2012 (IEEE LCW'12) was hosted by the University of Balamand on 17 November last year.

Thanks to support from Alfa and National Instruments Arabia, the workshop attracted more than 200 participants.

The workshop formed an excellent forum to exchange information and discuss the latest popular topics of machine-to-machine communications, internet of things and green communications.

For more details, go to www.comsoc-lebanon.org.

Chafic Mokbel



Symposium focuses on developments in electronic packaging technology

THE 18th International Symposium for Design and Technology in Electronic Packaging (www.sitime.ro) was hosted at Alba Iulia, Transylvania, Romania from 25–28 October 2012.

The conference covered a variety of topics related to electronic packaging, assembly and manufacturing technology, microsystems, advanced materials, communications, education and power electronics.

The keynote speakers, Alain Michel from ANSYS and Heinz Wohlrabe from Dresden University of Technology, introduced the

simulation of electromagnetic fields of high performance electronic applications and quality assurance setup for optimum soldering quality by. The conference also had an application presentation of ANSYS 3D Simulation as well as a panel discussion on EUR ACE, the European quality label for engineering degree programs.

The next meeting will be held in Galați, Romania, from 24–27 October 2013.

Cristina Marghescu, CPMT Society, Politehnica University of Bucharest

Will.I.Am and Bill Gates join plenary speakers for Global Grand Challenges

MORE than 400 delegates attended the Global Grand Challenges Summit at IET at Savoy Place in London on 12–13 March. Most of those attending were members of the Royal Academy of Engineering, US National Academy of Engineering and the Chinese Academy of Engineering.

The objective of the meeting was to discuss how engineering can contribute to solving the complex problems that will affect humanity's progress in the remainder of the century. The event comprised six sessions over two days devoted to sustainability, health, education, enriching lives, technology, and growth and resilience.

There were a number of plenary speakers. These ranged from Craig Venter, the American biolo-

gist and entrepreneur known for being one of the first to sequence the human genome and for creating the first cell with a synthetic genome, to John Hennessey, president of Stanford University, who talked about the emerging need for adaptive, self-paced, any place, any time education.

A surprise guest was the US-based music impresario Will.I.Am, who spoke about using lessons from the music, entertainment and consumer industries to attract youngsters into engineering. He is an entertaining and dedicated speaker interested in improving the lives of kids, particularly in the US ghettos and deprived areas.

Bill Gates was the final speaker, via video link, who talked about, amongst other things, the work of

the Bill and Melinda Gates Foundation in addressing grand challenges in health and medicine. It was good to note that he took a number of questions online.

While we have the IEEE Technology Time Machine, it occurred to me that an IEEE event could be organised in partnership with the EU or UNESCO in Region 8 with a wider remit seeking to highlight developments in electronics, electrical engineering and ICT that address the Global Grand Challenges. Or a similar event could be held with *IEEE Spectrum*, perhaps in New York or more suitably in Washington.

Further information on the Summit is available at: <http://globalgrandchallengessummit.wordpress.com>

Tariq Durrani



Breezing through wind power turbines

ON 20–21 September 2012, members of the IAS/PELS/IES German Chapter met in University of Rostock, invited by the University's Professor Eckel and sponsored by Nordex, a pioneer in wind power.

During the gathering, different research topics were presented and discussed, ranging from electrical energy generation in power plants and investigations on grid system behaviour to grid design and optimisation, efficient use of renewable energies, energy storage and electromobility.

Jan Runge demonstrated the influence of asynchronous motors on grid oscillations. Tobias Appel talked about the reverse recovery behaviour of body diodes in SiC-MOSFETs and JFETs. Nils Hendric Schall presented an overview of Nordex and its activities, especially to address applications in light wind regions where turbine blades reach the length of up to 80m.

Rene Bartling presented new insights in the design of earthing devices for lightning protection, achieved by the use of FEM.

Dr Hendrik Klein gave a presentation on challenges in development and production of the rotor blades.

Nordex has identified the tendency for lower peak power but more full-load operation hours.

On the second day, a visit of the production facilities of Nordex was organised where participants were showed how rotor blades of 60 metres long are built from balsawood, GFC (Glas Fiber carbon) materials and resin.

Andreas Wagener

First TISP workshop is held in Spain

THE IEEE Student Branch at UNED organised the first TISP workshop in Spain for teachers at elementary, high and vocational schools.

At the event venue, National Museum of Science and Technology (MUNCYT) at Coruña city, participants learned about the IEEE mission and vision, and how TISP provides a forum for IEEE volunteers to demonstrate the application of engineering, science and mathematical concepts.

A welcome presentation was delivered by German Carro and Hector Puyosa, followed by two short presentations by Inmaculada Plaza and Gabriel Diaz about IEEE Education Society in Spain and the importance of workshops as a motivational tool, and one by Ramon Carrasco on the key role played by educators.

Pre-university educators and IEEE volunteers were trained on how to organise a TISP workshop and what lesson plans are available, and got hands-on experience by conducting the 'Design and Build a Better Candy Bag' and 'Critical Load' lessons plans. The event closed with a round-table discussion.

This first TISP training workshop in Spain was a successful and valuable event.

Hector Puyosa

Educational Activities Chairman, Spain Section



Professor CC Chan with the University's Tazzari electronic vehicle

The grandfather of EVs delivers Lille lectures

THE French VTS chapter and MEGEVH (French scientific network on Hybrid Electric Vehicles) invited Professor CC Chan from the University of Hong Kong to give lectures on electric vehicles (EVs) at the Université de Lille last September.

The first lecture was focused on the 'Global outlook of electric vehicles development and their infrastructure' and also on the philosophy of engineering for the development of innovative vehicles.

A second lecture was entitled 'Energy storage and smart charging of Electric Vehicles', specifically looking at how to combine energy and information for the development of EVs.

A lot of questions were raised by the students on the hot topic during the Q&A session. At the end, there was a demonstration of the Tazzari EV, which was the best moment for all of the attendees.

Alain Bouscayrol

VTS French chapter

WIE at Arab American University, Palestine

THROUGH great effort, the Women in Engineering Affinity Group at Palestine's Arab American University organised a non-academic event in order to let students to know more about WIE and to introduce them to the benefits of being part of this amazing team.



Students brought with them homemade food and snacks in the hope of attracting more participants – but they equally encouraged students to sign up to WIE by making brochures and other information available on the table!

WIE at AAU: explaining the benefits of being part of the team

Organisers promised to arrange further WIE events, including both academic and non-academic. It was also felt it would be a good idea to introduce new members to activities such as workshops, conferences and competitions.

We always hope to focus on the interesting and fun side of science and engineering for everyone.

Zeina Doughlas

WIE chair, AAUJ Student Branch



Latest WIE Affinity Group is established in Lisbon

ON 14 January, a new IEEE Affinity Group, WIE ISCTE-IUL, was formed. This was a remarkable moment for the female members of IEEE ISCTE-IUL Student Branch, who intended to establish a group focused on their needs and at the same time provide help and support to all women enrolled in ISCTE-IUL engineering courses as well as those interested in technology.

This group also intends to demonstrate women's strength in this area to senior high school girls and, in doing so, encourage more women into the engineering areas.

Patrícia Duarte Mateus

Chair, WIE ISCTE-IUL

patricia.duarte.mateus@iee.org

Give a warm welcome to Region 8's new Student Activities Committee

DEAR IEEE student friends! We are now big-time into 2013 and many of you are already busy planning, organising or learning and having fun in the different student activities running in our Region.

We would like to start this column by introducing our new SAC team for the year 2013/14, which will be taking over the big task of delivering the best possible service to all of you.

Christian Schmidt (Austria Section) will be your Student Representative and your voice in Region 8 Committee. **Piotr Graca** (Poland Section) is already taking care of all awards and contests programs currently running in our Region. **Efthymia Arvaniti** (Greece Section) is the Student Branch co-ordinator and **David Dias** (Portugal Section) will take care of our electronic communications, Facebook and web page. **Elias Nassar** (Lebanon Section) will stay with us as the past chair, **Djordje Paunovic** (Serbia and Montenegro Section) still co-ordinates the Student Paper Contest and **Pablo Herrero** (Spain Section) will be chairing the committee for 2013.

Some of you already got to know most of us, but we would like to remind you that Region 8 SAC is always at your service. Don't be shy, drop us a line at r8sac@ieee.org.

We would like to take the opportunity to thank the previous SAC team who made a milestone in Region 8 by delivering the best and most successful Student Branch Congress ever.

This year is going to be awesome! As it is usual in odd years, we are having many cross-Sectional Student Branch congresses running. We already



had the Iberian SBC in Porto, the CEuSBC (Central European SBC) in Opole and the ME-SBC (Middle East SBC). The Hellenic SBC is on its way for late 2013. Also, several Sectional SBCs are taking will take or took place this year, in Turkey, UK, Spain, Egypt and more.

We always try to keep up and be at your level as you do with your activities, so we are spending a lot of time in communicating with you via our Facebook and web pages. Please do the same, we love to hear from you! Drop a few lines to tell us about that great congress that you organised or send pictures of your last workshop. In addition, don't forget to report to us any new officers of your Branch, ensuring we don't lose contact with you.

We would like to end these lines congratulating you – yes, you! You have made a big effort in membership campaigns, enlarging our family, so keep on going! More than 17,000 is a very, very huge family and we all are part of it. We will always be proud of being part of it. See you out there!

Your Region 8 Student Activities Committee:

**Christian, Piotr, Efthymia, David,
Elias, Djordje and Pablo**
r8sac@ieee.org

Arab American University, Palestine Code Jam contest helps you think creatively

IEEE AAUJ Student Branch has organised the global competition Google Code Jam with 20 enthusiastic students from Arab American University – Jenin, hosted by Dot Media Company. It's critical for students to participate in these contests to develop hands-on technical skills, such as abilities to think creatively, work under pressure and write programs to solve challenging problems.

The Student Branch also held a special day in occasion of the IEEE Region 8 50th anniversary, sponsored by Cisco, which organised workshops on modern technology in computerised and wireless networks. Through that event, the Student Branch celebrated 50 years of Region 8 by sharing a cake with students in the college and distributed IEEE posters.

Iyad Jaradat
Chair, AAUJ Student Branch



University of Central Greece

Lamia high school benefits from first TISP workshops

ON 29 March, for the first time in Greece, a team from the IEEE University of Central Greece (UCG) Student Branch organised two TISP Workshops at the 1st High School of Lamia.

Efthymia Arvaniti delivered a presentation about IEEE, PUW and IEEE UCG Student Branch. Then the EPICS Project was discussed with school teachers who agreed on preparing a proposal for an EPICS Project. Benefits of the Teacher In Service Program were also presented explaining the methodology and its objectives.

In the second part of the workshop, 42 students participated the competition by forming small teams of three and trying to build a chair-lift with common materials within a time limit. The local media reported the event and more schools have contacted the Student Branch, requesting TISP Workshops.

Efthymia Arvaniti

Caledonian Engineering College, Muscat, Oman

Project Fair acts as creative showcase

CALEDONIAN College of Engineering IEEE student members, along with other professional student Chapters, held an Engineering Projects Fair on 15 May at Al Hail Campus, Muscat, Oman.

More than 30 student groups participated in the competition with 15 previous projects on exhibition. With an introduction session by Ahmed Hassan Al-Bulushi, acting dean of Caledonian College of Engineering, the fair was a platform for students of all engineering branches to showcase their innovative and creative ideas through the projects and also an opportunity to present their research in a competitive forum.

Ahmed Hamood Nassir Al Kharousi won first prize in the Project Fair competition. There was also a Fun Corner where interactive activities and games with



Zeena al Towayya (left) receives an honorary memento from Lublubah Hatif, WIE-IEEE

prizes took place, as well as a quiz competition, a self-driven cars racing track and a robotics show.

The Student Branch also organised a special talk on 'Global Warming – Its Effect and Impact Study at Antarctica' on 14 October last year, delivered by Zeena al Towayya. She is the first Omani woman to step foot in Antarctica and her talk explored the impact on Antarctica's wildlife and landscape of the rise in temperature due to global warm-

ing. Expedition members, as a prerequisite of their participation, are responsible for informing, engaging and inspiring the next generation of leaders in their country of origin to take proactive initiative that will protect the environment and provide for a sustainable future.

A guest talk on 13 March 2012 on the topic 'Workplace Reality in an Engineering Industry' took place in Conference Hall. Vikram Duggal, technical advisor at Oman Cables, presented various modes of realities at the workplace, such as understanding who is an employer and his expectations, how manufacturing is chosen and implemented, dealing with people with a human touch, team building, and the significance of a key performance index (KPI) in technical business.

Pawar Dharmasa
Student Branch Counselor



It's not magic you know... but an interest in engineering can be wizard fun just the same.



Key to the success of Lab on Wheels has been the training sessions for students wanting to implement it themselves.

German Jordanian University, Amman, Jordan

GPU's Lab on Wheels project expands as other Student Branches get involved

THE Student Branch has established collaboration with the Princess Sumaya University for Technology (PSUT) Student Branch to give them the chance to become part of the 'Lab on Wheels' project.

Initiated in 2009 by the GPU Student Branch, the project provides simple yet informative mobile laboratory experiments, and competitions are performed by school students at their school premises. More than 1,500 school students in 40 public schools have been visited by the Lab on Wheels team to date.

Since the project reached the maturity stage, the team started marketing the project at other universities. Members of the PSUT Student Branch were impressed and decided to implement the project themselves. They

attended two training sessions and then organised two trips for 4 and 5 December 2012.

The pinhole camera experiment was first explained to girls of the sixth grade, where the techniques of how it works and how to make one were illustrated in detail. The second experiment was about the transforming of substances from solid state to the gas state, in which it was explained in a fun way with a detailed demonstration.

The goal of the two trips was to teach the children science not just from books but experience science and technology first hand to inspire the next generation.

After the growth of Lab on Wheels at GPU, the team decided to involve a different age group in the project. Al-Mashreq International School agreed to involve their

students in this one-of-a-kind voluntary project in which time spent by students counted towards their community service programme.

There was much more anticipation to learn about the project and take part in it by the tenth grade students for several reasons. Not only would they be learning new facts but also experience what it's like to be a teacher.

To prepare the students for the trips, Lab on Wheels members from GPU held a workshop about the project and presentation of the various experiments. The school conducted two trips in June 2012 to nearby underprivileged schools. The students loved the new experience gained from the visits and felt a thrill of exchanging knowledge with the other students.

Fatema Hussein

AL-Balqa'a Applied University - Jordan

Technology Day is a hit with students

IEEE BAU Technology Day was a big event on 17 November last year, gathering students from BAU and other universities.

The day began with a series of invited lectures from guest speakers, covering subjects such as medical robotics and nano technology; robot anatomy; smart homes with videos and pictures; fibre optical cable construction in cities; and data transmission. In the second session, students groups presented their projects on how to use solar energy to feed the main grid with an electricity and how to control and phase AC motors.

In another BAU Student Branch activity, Mohammad Al-kheder from the Mechatronics department presented two interesting lectures about the solid work programme: how to start with it, its principal features, how students and companies can use it in simulation to check the validity of their system, and some of its applications.

The Student Branch has also managed to select a range of electrical and electronic parts as a DIY package, then sell it to students at a low price to encourage them to get hands-on. This package is continuously available from the Branch. The Branch committee also stores a collection of sample circuit boards for the students to reference with.

Mohammad Ayyash and Mahmoud Sukker



Higher School of Tech & Computer Science, Tunisia

ESTI launches Little Engineer Day

13 March was a very extraordinary day for the ESTI Student Branch and the Integrated Centre of Children in Morneg-Tunis. The centre is one of many in Tunisia that create smiles on many little faces after losing their parents, their family or even losing all financial and moral support in their lives.

So the IEEE ESTI Student Branch organised The Little Engineer Day, on which members of the Student Branch visited these children to teach them basic knowledge of technology and engineering. We had enjoyed a great time with the kids and held competitions in computing and sport, for which all winners received gifts from the Student Branch, such as electrical games, robots, puzzles, books and little encyclopedias on different subjects.

Childhood is the time that we start to create our future and our dreams that develop our personalities and our lives. With this visit,



we believe we can help many children to discover a future full of technology and engineering which can potentially help them find their path in life – and we had fun too.

We agreed that the visit will become an annual event for the ESTI Student Branch in order to help other children in our own way

Bilel Dekhili

Chair, ESTI Student Branch



110 delegates benefit from 'Athena' summer school

THE 3rd IEEE Greece GOLD Affinity Group Summer School 'Athena' was held from 1–6 July 2012 in Pyrgos, Greece, attracting 110 participants.

The main purpose of the courses was to gain significant knowledge on six tracks: Algorithms, Telecom, Hardware, Encryption, Networks and Applications.

During the courses, attendees were presented the fundamental issues of the applications

and specific usage in advanced topics. The opportunities of exploring the latest technology within industrial companies who have a good research and engineering base have been a good preparation for the technologies involved.

For more details, please visit the 3rd IEEE Greece GOLD A.G. Summer School website: www.athenasch.knossosnet.gr.

Agni Andreopoulou
Greece GOLD Affinity Group

University of Patras, Greece

CORRESPONDING to the interest of the academic community in telemedicine, a related event was held on 21 February by the EMBS Student Branch in collaboration with the Wire Communications Laboratory of the University of Patras. Distinguished lecturers and experts in this field of Biomedical Engineering presented innovative telemedicine technologies and their influence on medical care, including live presentations of international scale telemedicine systems. The event was held with great success and attracted students to broaden their knowledge on this promising new field.

Eirini Kaisari

Iran Section Student Branches

STUDENT Branches of the University of Tehran, Shiraz University, Isfahan University of Technology and University of Kurdistan held an open day for new student members at the beginning of the fall semester. They had an introduction talk on IEEE and the opportunities that IEEE provides for the students. They also introduced their Branch activities and discussed how the new students may participate in these activities.

Faculty of Electrical Engineering, Osijek, Croatia

DURING Autumn 2012, the Student Branch organised various lectures on web design, aimed at everyone with a passion for web technology. The idea for this type of lecture came from Student Branch vice-chair Josip Balen. We had a big help from Osijek Software City, who provided high quality and experienced lecturers from various IT companies. Through the intensive lectures, different programming languages, platforms and design principles were presented to the participants, while some of lectures were broadcast to Student Branch Zagreb via Google Hangout.

Dinko Jakovljevic and Josip Balen
www.etfos.hr/ieee

Saint Joseph University, Lebanon

USJ members investigate hydroelectric power

ON 19 April, the Student Branch organised a trip to the major hydroelectric power stations of the Litani Project in Southern Lebanon.

At the Joun's power station, Ghassan Gebran showed the main elements used in a power station connected to the grid and explained about their major roles as well as the Francis Turbines powering Siemens alternators. The group also visited the Awali power station where a transformer's maintenance was being conducted, showing its Pelton type Turbines.

On 4 January, a seminar was delivered by Bassem Salameh who graduated from ESIB in 2002 as a telecom engineer and currently works at Ericsson.

Bassem shared with the attendees his own experience as an engineer and an overview of the main telecom manufacturers and operators as well as career opportunities in the field.

On 14 November 2012, a Berytech



Ghassan Gebran (head of hydropower for the Litani River Authority) and Hadi Kanaan (USJ Student Branch Councillor) with USJ Student Branch members.

Open Doors event was held at Berytech, Campus des Sciences et Technologies, Mar Roukoz, Mkalles, in the framework of the Global Entrepreneurship Week. Berytech welcomed university students, aspiring entrepreneurs and partners to meet innovative entrepreneurs and learn about the Berytech environment. All of the participants and especially USJ Student Branch members were guided by the IEEE members who helped them

in finding training and internship vacancies.

The USJ Student Branch was proud to host on 7 March a lecture given by IEEE Fellow Kamal Al-Haddad from Ecole de Technologie Supérieure, Montreal, Canada, on the 'Role of Power Electronics in Helping the Integration of Renewable Energy Systems into the Existing and Modern Smart Grids'.

On 8 December 2012, the Student Branch organised a presentation on Leadership the ESIB auditorium. The presentation was conducted by Grace Najjar, founder and CEO of ALIGN Management Solutions.

After showing how someone can inspire people and how a certain behaviour can affect other persons, Grace listed the qualities of a leader backed with clear and precise examples.

Khaled Karouni
Vice President IEEE USJ

University of Pretoria and St Alban's College Pretoria

EPICS project tracks quality of air we breathe

A joint undertaking by University of Pretoria and St Alban's College Pretoria seeks to design and implement a microsensor-based air-quality monitoring system.

The project has been conducted as an Engineering Projects In Community Service (EPICS)-in-IEEE initiative. The project team consist of an undergraduate student and a group of eight grade secondary school students. The project was led by an undergraduate project student, Phumudzo Bebe, supported by Saurabh Sinha of the University of Pretoria.

The proposed project utilises wireless sensor network nodes (WSNs) to sense and transmit selected ambient air-quality parameters to a central node, which relays the data to a folder on the Google cloud. While the undergraduate final year student designed an analogous system by first principles, the secondary school learners used educational air-quality microsensors off-the-shelf components.

Phumudzo Bebe
bebewepr@ieee.org



Faculty of Electrical Engineering Osijek, Croatia

Congress covers wide range of tech topics

THE second Small Croatian Computer Society Student Chapter and Student Branch Congress has been held by the Osijek Student Branch.

During the two-day congress, we organised various technical and social activities for 20 participants from the four Croatian Student Branches (Osijek, Zagreb, Split and Rijeka), three CS Student Chapters and GOLD Affinity Group Croatia.

Technical tracks covered topics such as 'Usage of holography for defect detection on ceramic tiles', 'Underwater inspection based on the 3D sonar systems', 'Computer vision in modern systems' and 'Windows 8 and Windows Phone 8'.

Furthermore, four mobile applications (Android, iOS, Symbian and WP) developed by Student Branch Osijek members were presented.

The most important part of the congress was a big discussion in which we exchanged experiences between Branches and Chapters and made plans regarding the enrollment of new student members, among other future projects and activities.

Luka Horvat and Josip Balen
www.etfos.hr/ieee

Developing skill set of Turkey's SB committees

THE Turkish Student Branches organised the IEEE Turkish Chairperson's Meeting 2013 in Izmir from 4-9 February. The aim of the congress was to present all the activities performed by Student Branches as well as delivering training and presentations on new activities and skills to new members of the executive committees.

Rui Costa, founder and coordinator of the IEEE'X Academic project and member of the Region 8 Educational Activities Committee, participated in the congress, delivering several presentations with special highlight to the IEEE Academic Turkey presentation. The project aims to create a worldwide student-to-student online educational resource, motivating Student Branches from Turkey to participate as one of the first countries creating such project.

At the same time, the first IEEE'X Academic Turkey meeting was held confirming 14 participating Student Branches. This event kickstarted the Turkey initiative for the IEEE'X Academic project, showing that students recognise the need to create such a initiative.

Rui Costa



AAST-Cairo, Egypt

Robot sweeps for landmines

ON 18 September 2012, AAST-Cairo Student Branch 'Pegasus' won 2nd place in the 'Minesweepers: Toward Landmine-free Egypt 2012' competition. The team consisted of nine members under the supervision of Wessam Elhefnawy.

The team designed a wheeled robot that had the ability to search for underground anti-personnel mines and produce a map of the detected mines.

The Student Branch was also one of IEEE's 10 'day photo' contest winners. We had decided to commemorate the anniversary of the first time IEEE members gathered to share their technical ideas in 1884 at our university campus. Some 128 years on, we simply finished our meeting with a historical photo.

Ahmed Abd El Raouf
Chair, Student Branch

University of Pavia, Italy

Pavia Student Branch sends its delegation to Poland congress

THE Student Branch of the University of Pavia, Italy, participated in the 2nd Central Europe Student Branch Congress. The event attracted 70 participants from 21 countries and brought them to Opole, Poland, from 13–15 May. During the congress, several IEEE presentations were given, together with technical seminars and workshops.

Moreover, an international competition called IEEE Speed was organised among the participants: a representative of each Student Branch was supposed to talk about his country, city, university and Branch activities in a very short presentation of almost six minutes. A jury composed of three academic representatives judged every presentation and finally announced the Student Branch of the University of Pavia as the absolute winner of the competition.

Stefano Moscato and Branch counsellor Silvano Donati welcomed students on 31 January participating in a discussion on 'Future Sensors between Design and Applications'. Elisa Marenzi and Sara Rampazzi presented the latest sensors for biomedical applications, while Alessandro Liberale exhibited energy harvesting technologies.

On 7 March, the main topic was 'Numerical Methods for Engineering Applications', during which Andres Gonzales and Maria Luisa Sardu presented innovative methods



for predicting and monitoring human tumor cells' processes, then Andrea Giannini exhibited modern and fast algorithms applied to the study of electromagnetism.

Another seminar was held on 18 April, focusing on 'Remote Sensing in Electronic and Telecommunication Technologies'. Junlei Zhao presented the new high frequency wireless technologies for data and power transfer, and Tie Yang exhibited how to analyze different cell's properties by means of optical fibres and lasers.

Finally, Mostapha Harb showed an innovative method to take advantage of Satellite Remote Sensing in order to prevent disasters caused by earthquakes.

The Pavia Student Branch, founded in 2000, has developed a strong programme of workshops and lectures and aims to increase membership substantially in next few years.

Stefano Moscato
Chair, Student Branch
ieee.sb@unipv.it



University of Patras, Greece

Patras hosts visitors from across Greece

THE first IEEE Hellenic Student Branch Congress (HSBC 2012) was successfully organised and hosted by the Student Branch of the University of Patras on 14–16 December last year.

The congress attracted around 70 attendees from 10 Student Branches all over Greece and invited Student Branches from University of Cyprus and IST in Portugal. The aim of the event was to help participants gain further knowledge and promote the exchange of ideas about the future of IEEE in Greece.

Students also had the opportunity to tour the premises of Patras InnoHub, attend the presentation by Vassilios Makios, General Manager of Corallia, who emphasized the need for the development of innovation 'made in Greece'. IEEE volunteers also had the chance to visit the Archaeological Museum of Patras and other social activities.

For more details see: www.hsbc.ieee-upatras.gr
Marios Bikos, Chair, Student Branch

University Institute of Lisbon (ISCTE-IUL), Portugal

New SB helps organise green communications workshop

ON 31 August 2012, a new IEEE Student Branch was officially established. This was a remarkable moment for the founding student members of ISCTE-IUL that intended to be 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).

A special thanks to the representatives of other Portuguese Student Branches and to the Portugal Section: in particular, João Barata Oliveira (Student Branch Treasurer of Universidade Nova de Lisboa), and Rita Raimundo (Event Coordinator from Portugal Section).

On 7 November 2012, the Student Branch was involved in the organisation of the 4Green Communications Workshop. This event was focused on the inter-disciplinary re-



search challenges associated with the most relevant aspects related to green communications of mobile networks. It brought together academic, industrial (manufacturers and operators) and regulator perspectives. About 150 people attended. During this event a marketing campaign was performed, resulting in a 40% increase in Student Branch members. The Student Branch welcomes the success of this distinguished event.

Paulo Diniz Gil
Chair, Student Branch
paulo.diniz.gil@ieee.org

National Research University of IT Saint Petersburg, Russia

DURING 26–28 February, the Student Branch organised a big event called 'Education program for young scientists'. This event included a series of lectures and workshops for young scientists, pre-graduates and graduate students on: IEEE and benefits of IEEE GOLD membership, a lecture by Alan Miller ('Light Years: reflections on a career in physics'), lectures about marketing in science ('Financial support: how to get a grant') and two workshops ('How to make technical presentations' and 'Chinese language for scientists').

Maria Osipova
Student Branch secretary

University of Applied Sciences Bielefeld, Germany

THE IEEE Power and Energy Student Summit (PESS) took place at the University of Applied Sciences Bielefeld on 24–25 January. The main focus of this conference was the transfer of knowledge and creating networks between graduate and postgraduate students as well as representatives from selected companies in the energy sector. The students submitted a paper, which was evaluated by external reviewers and had the chance to present their work as oral presentation or poster. The next PESS will take place at the University in Stuttgart.

Christian Lorenz

Technical University of Lisbon, Portugal

FOR a third year, the IST Student Branch team worked hard to implement the TISP 2.0 programme. During five months, a great team made contacts with schools, chose activities, planned the budget and bought material. This year, the Student Branch team visited six schools, reaching almost 1,500 students. After that third experience doing the TISP 2.0 program, the final balance is extremely positive and the work becomes quite rewarding when goals are achieved.

Fábio Domingos

Alexandria Student Branch, Egypt

IN November last year, the Student Branch organised a technical session in co-operation with Bibliotheca Alexandrina under the title 'Hardware Emulators Technology', given by Khaled Salah.

He touched on the intro to integrated circuits, electronics design flow, FPGA and emulators used to simulate and test behavioural prototypes. At the end of the session, a Q&A was held regarding research directions for hardware emulators.

Rana Aly Mohamed
Rana.aly93@ieee.org

University of Central Greece

FOR the fifth year in a row, UCG Student Branch in collaboration with the University organised the annual two-day Workshop, 'Biomedical Engineering: Trends, Research and Technologies'.

The workshop covered topics on fMRI and MRI technologies, Brain Computing, Near Field Communications in Biomedicine, Image Processing for people with Visual Disabilities and Techniques for Activity Recognition to identify Emergency. A brief presentation on the newly formed UCG Computer Society Student Chapter and the UCG WIE Affinity Group was given. More than 200 attended.

Ioannis Mousmoutis
Secretary, Student Branch

Akanu Ibiam Federal Polytechnic, Nigeria

AS part of the campaign to improve education quality and employability of graduates in Nigeria, the Student Branch launched a hands-on, three-day training course on printed circuit board production using a Computer Aided Design approach. The training was held on 5–7 December 2012, attracting more than 215 attendees, comprising faculty staff and students of different schools. The programme combined team work, practical sessions and exchange of ideas.

Chimezie Eguzo
cveguzo@akanuibiampoly.edu.ng

Hellenic Open University, Greece

Remote micro course ends with a contest

ON 16 December 2012, the final presentations were given from the participating teams of the 2nd Blended-learning Course on Microcontrollers/Team contest, which was a five-week course.

The participants were tutored remotely on modern microcontrollers, sponsored by IEEE's Circuits and Systems Society and the Hellenic Open University. Students were able to access and program Arduino systems connected to a variety of equipment such as sensors, LED, LCD, TFT screens, Ethernet modules etc. The systems were located at the DSMC Lab, were available 24/7 and the students could observe the results of their experimentation through a web camera connected to each of the systems. Each week an e-lecture was given from the course tutor Vassilis Fotopoulos.

Students formed teams based on Student Branch and three teams presented their projects in a parallel session of the 1st IEEE Greek Student Branches congress, held in Patras. The projects included a GSM alarm system, a galvanic skin response monitoring application and an Ethernet controlled home automation system.

Each participating Student Branch in the final contest, received a 7in android tablet, a hardcopy of *Arduino cookbook, 2nd ed*, an Arduino UNO board and a starter kit containing various test components. For more information on our lab, visit: <http://alturl.com/tjwg7>

Vassilis Fotopoulos
Hellenic Open University



Technical University of Lisbon (IST), Portugal

Pitch that idea and get to present it in Silicon Valley

IN November last year, the Student Branch organised a big entrepreneurship event, attracting more than 60 participants.

This event was a team competition on mobile applications, where each team would be composed of three participants, one of each area. The first prize was a travel for the whole team to Silicon Valley, where they could get in contact with companies such as Google, Facebook or Microsoft, and with international investors.

The first part of the event is the 24-hour Kick-Off Day, which took place at the Catolica-Lisbon University. This started at 11am with the 10 Lessons Pitch, where we had the pleasure of presenting a great panel of speakers. Later, at networking/lunch time, the participants formed the teams and the game began!

At the end of the 24 hours, they had to give a two-minute pitch, presenting the idea of their mobile application, and all the work they developed, to a panel of investors. Almost every team had at least one investor interested in their application.

But the game wasn't over yet. In the second part of the event, the teams, now with the investors' support, would have just two weeks to develop a MVP proposal for the application, and to prepare the final pitch (at the University Institute of Lisbon) to be presented to a panel of jurors, representing the final competition for the amazing prize.

Catarina Martins

University of Niš, Serbia

Online voting picks winner of Students' Projects Conference

IEEE STEC 5th International Student's Projects Conference was held on 29 November 2012 at the Faculty of Electronic Engineering, University of Niš, Serbia.

The welcome and opening speech was delivered by conference chair Danijel Danković. The opening address was followed by Dragan Janković, dean of Faculty of Electronic Engineering Niš; Dobrica Živković, the vice rector of University of Niš; Vera Marković, the vice president of IEEE Serbia and Montenegro Section; and Zoran Perić, the vice dean of Faculty of Electronic Engineering Niš.

The conference proceedings contained a total of 37 papers which covered a wide range of topics. Based on evaluation of the quality of the papers, three Best

Paper Awards were presented. This year, awards were assigned to the winners of online voting.

The full-day event ended with the handing of the special awards for the best projects according to the choice of the authors of papers. The conference was very well received by the attendees, numbering some 300 people.

More information about the IEEE STEC Conference can be found at: <http://ieee.elfak.ni.ac.rs>

Danijel Dankovic



German Jordanian University

Dragsters on the track

ON 11 October 2012, the Student Branch sent its first CO2 Dragster competition team to a public high school in Al-Mafraq, Jordan. The aim was to have a 10th grade class participate in producing its own dragsters by utilizing aerodynamics principles.

A week later, dragsters with striking designs were crafted and ready to race. They were tested in a wind tunnel and the car with the least drag coefficient won the 'Best Design' award. During the races, it was found that the high school students had crafted dragsters that reached speeds of 90km/h.

This competition has been sold to private schools and the income generated is directed towards holding the competition in public for less fortunate schools.

Fatema Hussein