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|----|------|-----|-----|--|
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|    | LIII | 155 | uс  |  |

| Region news 1–3 | Section and Chapter news 5-8 | Feature articles 11–12 |
|-----------------|------------------------------|------------------------|
| IEEE contacts4  | Student news 8-11            | Conference calendar12  |



# **Students build wind turbine for rural Western Cape from scrap**

ENGINEERING PROJECTS in Community Service (EPICS) (http://ep-ics.ecn.purdue.edu) is a program for university and secondary school students to work on engineering-related projects for local humanitarian organisations. An IEEE New Initiatives Committee (NIC) pilot project has successfully shown how EPICS can work together with IEEE

volunteers in the Philadelphia and South Africa Sections.

In a pilot, the University of Cape Town IEEE Student Branch has got involved. They proposed an EPICS-High project to develop a wind power turbine from scrap material. A prototype was quickly designed which could deliver about 50 Watts of electric power.

Above and left: University of Cape Town Student Branch members engage two South African schools in the project.

Photos: EE Publishers (Pty) Ltd The technical work was led by Justin Alvey and the design was aligned to his final year undergraduate project.

Another goal – cultural – aimed to bring together two nearby schools with quite different backgrounds. In South African terms, Thandokhulu Secondary School is classified as a previously disadvantaged school, achieving considerable progress as recognised by a Ministerial award in 2002. Westerford Secondary School ranked as one of the top secondary schools in South Africa during 2009. The EPICS-High project enabled not only a scientific and technical bond, but also a cultural synergy.

The IEEE EPICS-High initiative ended with the close of the 2009 [continued on page 2]

Region 8 Director Józef Modelski reports:

## R8 makes its mark in IEEE

LAST YEAR, Region 8 volunteers in education, technical society meetings, conferences, and standards built a strong and solid base within IEEE.

- Congratulations to our 54 new Fellows who are leaders in their fields.
- In the autumn 2008, Roger Pollard was elected by all voting members of IEEE to serve as 2010 IEEE Vice President of Technical Activities. Roger now serves us as 2010 IEEE VP Technical Activities.
- At its 19 November 2009 meeting, the IEEE Assembly elected Tariq Durrani as 2010 IEEE Vice President, Educational Activities.
- Seven members from Region 8 have been elected President of an IEEE Society. We are represented on many IEEE boards and committees.
- At a meeting of the IEEE Member and Geographical Activities Board, Rami Muschcab was appointed MGA Vice Chair for Strategic Management and Analysis.
- At the annual IEEE Awards Ceremony, Region 8 volunteers received eight awards from the EAB and MGA.

During 2010, Region 8 Committee and Section volunteers will organise these events:

- In April, our flagship conference MELECON will be held in Malta. The annual R8 Student Paper Contest will be judged there with a record number of papers submitted.
- December sees a brand new event, EnergyCon 2010, held in Bahrain.
- Student Branch Congress will take place in August in Leuven, Belgium.
- The Region 8 committee will meet twice: in Riga, Latvia (8–9 May), and in Prague, Slovakia (9–10 October).

My own challenges are to improve industry relations activities, educational activities and professional development.

Józef Modelski

March 2010 region&news 1

### Students build wind turbine for rural Western Cape from scrap

[continued from page 1]

academic year. But plans for 2010 were documented by a team led by Nana-Ampofo Ampofo-Anti. (Nana is studying for master of electric engineering at UCT and was chair of the project committee of the IEEE Student Branch.) The report proposes to install the turbine in a rural South African community, and also registering as an 'EPICS University' proposed by Purdue.

A fresh understanding of the Western Cape breeze as a source of renewable

energy has added to our knowledge of what can be done. The IEEE South Africa Section appreciates the grant US\$12,500 from the IEEE New Initiative Committee which helped make our project possible.

For more information, go to: www.ieee.org/web/aboutus/initiatives/sgp.html

Saurabh Sinha

South Africa Section ssinha@ieee.org

Kapil R Dandekar

Philadelphia Section dandekar@ece.drexel.edu





## IEEE members converge in Russia to develop their technical English

IN ST PETERSBURG, Russia, the first IEEE Technical English Program (TEP) Workshop for non-English speaking countries was held in October 2009. It was attended by 71 participants, including teachers and organisers from eleven sections, including Uruguay and the USA.

The workshop began with pre-tutorial meeting for teachers and continued with

a program for students to practise their skills in technical English. On the second day, students were divided into groups with moderators and began solving different problems in English.

All participants had the chance to present their own short report to others. Eight hours of discussion and problem-solving let everyone establish technical commu-

nication with each other, despite coming from different countries. The third day concluded with tutorial results and TEP perspectives.

Alexander Mikerov, North-West IEEE Section Vice-chair, told about his experiences in starting TEP in St Petersburg Technical University and developing it into a very successful project. For more details, see: www.ieee.org/web/education/technical\_english.

Elena Grigorieva IEEE Russia Northwest Section Press Attaché

## **Education Activities Board presents awards to two IEEE South Africa Section members**

AT ITS November meeting in New Jersey, USA, the Education Activities Board (EAB) honoured the following members of IEEE South Africa Section.

The Meritorious Achievement Award in Informal Education was presented to Nico Beute "for exceptional leadership in pioneering, organizing and managing the IEEE Teacher-in-Service Program in South Africa".

The EAB Pre-University Educator Award was presented to Helena Jeanetta Coetzee "for creating opportunities for the engagement of South African pre-university students in science and engineering projects nationally and internationally".

IEEE EAB Awards recognise individuals and companies for their contributions



to education. For the year 2010, nominations for eight EAB awards remain open until 30 April. You can visit the

IEEE EAB web pages to read full descriptions and download the helpful document Awards – Preparing a Suc-

cessful Nomination by Alfred MacRae. You can also email: victor.fouad\_hanna@upmc.fr. Victor Fouad Hanna

# Top science and literature award in UAE

EESA M Bastaki has received the highest honour in United Arab Emirates' Awards for Science & Literature.

The award was presented by His Highness, Sheikh Khalifa Bin Zayed Al Nahyan, President of UAE, on 2 December (UAE National Day). Mr Bastaki said he was "much honoured to receive this award from His Highness and I hope to serve my country in science and technology for the betterment of humanity in UAE and the rest of the world".

#### Dr Eesa M Bastaki

Faculty of Engineering United Arab Emirates University

### Comms forum TELESIKS attracts technical papers and more

FROM 7–9 October 2009, the Faculty of Electronic Engineering in Niš, Serbia, hosted TELSIKS 2009, the ninth biennial International Conference on Telecommunications in Modern Satel-



lite, Cable and Broadcasting Services. The event was organised with the National Society for Microwave Technique, co-sponsored by IEEE and supported by the local government.

Alongside technical papers, the conference also included a workshop entitled *Trends in Multimedia Communications* by Kamisetty Rao from University of Texas and Zoran Bojkovic, University of Belgrade.

Two round-table discussions followed on the strat-

egy of development in the Republic of Serbia 2009–14 and Accreditation in Higher Education. Presentations from the industry, an IET journal exhibit, and a historical talk on Nikola Tesla widened the interest. Serbia and Montenegro Section also held a committee meeting and Women in Engineering Chapter meeting.

A reception was organised by the Mayor of the City of Niš, and TELSIKS 2009 offered again a forum for promoting ideas in the field of talecommunications.

of telecommunications.

Bratislav Milovanovic

Chair of Serbia and

Montenegro IEEE MTT-S

Chapter

bratislav.milovanovic

@elfak.ni.ac.rs

## MTT-S Chapter Chairs get together in Rome



Józef Modelski, Region 8 director, welcomes the participants. Photo: Shmuel Auster, MTT/AP Chapter Chair, Israel

WITH 25% of its members in Region 8, the IEEE Microwave Theory and Techniques Society has 40 Chapters and Joint Chapters in our region. In September 2009, in conjunction with the European Microwave Week, the annual Chapter Chairs' Meeting took place in Rome. It gave us an opportunity to exchange experiences among the individual chapters, to share best practices.

For the first time, representatives of all Chapters worldwide were invited to participate. Daniel Pasquet opened the meeting and Region 8 Director Józef Modelski spoke about the importance of local chapters and student branches. MTT-S president-elect Samir

EI-Ghazaly told us about MTT-S's rapid growth due to initiatives in China and India. Other speakers introduced the administration, member and geographic activities, website and content.

Moderated by Jan Machác the Region 8 Chapter Coordinator chairpersons reported their major events, such as conferences, seminars, workshops and lectures held and organised in the past year.

Guests from the Singapore Chapter and Japan Chapter introduced the Asia-Pacific Microwave Conference in Yokohama in December 2010

Daniel Pasquet & Jan Machác MTT-S Chapter coordinators www.mtt.org

## **Photonics scientists meet up in Pisa to discuss future Internet**

PHOTONICS IN Switching 2009 arrived in Italy for the first time, with support from the IEEE Photonics Society, and sponsors Ericsson and Telecom Italia.

The conference is an exciting forum to present new ideas for optical switching. The steady increase in demand for bandwidth in telecom networks is due to internet users and corporate services.

Optical networks and photonic technologies can be

combined for scalable transport infrastructures capable of supporting high-capacity connections.

The Internet of the future will be faster than nowat least one hundred times more data than at present. Light signals rather than electric are more eco-compatible. Nearly 200 contributors came from Europe, from Japan, USA and Korea.

We had a plenary session, with outstanding scientists such as John Bowers, Yoshio

Itaya and Rodney Tucker; two topical workshops on digital photonics and optical packet switching; 18 technical sessions; and an exhibitor area. An enjoyable social program included a tour of historic Pisa, and wineries in San Gimignano and Gaiole in Chianti.

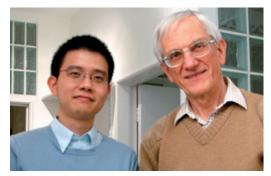
You are welcome to Photonics in Switching 2010 and contribute topics for the future development of optical networks.

Giancarlo Prati



March 2010 region⊗news

### Member activities: engage in the debate



Your editors: Zhijia Huang and Roland Saam

THANK YOU to all the contributors who wrote the stories you see in these pages. What you read is a small window on the activities which our members organise. This side of the IEEE - Members Geographical Activities (known as 'MGA' in IEEE lingo) – is every bit as important to me as Technical Activities ('TAB').

Why? During my 50 years as a member, I've belonged to several technical societies. But I am not an academic. and not attracted to conferences - their core activity. IEEE section and chapter

events fill my need for technical and social contacts. Networking is easier when events happen locally and when any member can get involved in organising them. They deserve your support!

The first of a series of articles by Roger Pollard appears this issue, on pages 11-12. 'Open Access' is a hot topic which concerns the financial future of IEEE, so please read the article and engage in the debate.

Please send in your news and developments to R8NEWS@ieee.org.

Roland Saam

## regionsnews Vol 13 No 1

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#### **REGION 8 OPERATING COMMITTEE**

Bylaws and descriptions of the committee offices — refer to www.ieee.org/r8

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Past-Director V/C Strategic Jean-Gabriel Rémy jean-gabriel.remy@industrie.

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V/C Technical Activities Fritz Bekkadai (Norway) fritz@bekkadai.net

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member-services@ieee.org

### **MELECON 2010**

www.melecon2010.org

26-28 April 2010 • Valletta, Malta

MELECON 2010 is one of the flagship conferences of IEEE Region 8 - an international forum presenting design methodologies, techniques and experimental results in emerging electro-technologies.

### **Electron Devices Society** award goes to East Ukraine

THE EAST Ukraine Section AP/AES/ED/EMB/GRS/MTT/ NPS Societies Joint Chapter won the IEEE Electron Devices Society Chapter of the Year Award for 2009.

This award recognises the quantity and quality of the activities and programs implemented during the oneyear period 1 July 2008 to

30 June 2009. A certificate and cheque for \$1,000 was presented at the 2009 International Electron Devices Meeting on 7 December 2009 in Baltimore, Maryland, USA.

Congratulations to the Chapter and Dr Oksana Shramkova, Chapter Chair.

Peter Magyar



The Institute of Electrical and **Electronics Engineers** 3 Park Avenue, 17th Floor New York 10016

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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 put 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 put 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.ieee.org/go/r8news.

#### **Deadlines for upcoming issues**

| June 2010 issue     | deadline: 1 April 2010   |
|---------------------|--------------------------|
|                     | deadline: 1 July 2010    |
| December 2010 issue | deadline: 1 October 2010 |
| March 2011 issue    | deadline: 1 January 2011 |

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### **SIBIRCON 2010**

http://sibircon2010.sibsutis.ru

11-15 July 2010 • Irkustsk, Russia

SIBIRCON 2010 is one of IEEE Region 8's flagship events – an international conference focusing on computational technologies in electrical and electronics engineering.

## **Energy and Environmental Crisis at PES WSA Chapter**

IN DECEMBER 2009, at the Saudi Electricity Company, IEEE PES Western Saudi Arabia Chapter organised two technical lectures, presented by Kurt R Richter.

A review of energy resources and energy consumption per capita was related to CO2 emission and temperature increase. The

role of renewables to achieve 2020 target was explained.

Richter's second lecture 'Nicola Tesla's European Time' discussed the contributions of this marvellous inventor, along with details of his life. Tesla's inventions are behind half of the topics covered by IEEE societies.

**Bander Allaf** 

## France marks 125th at historic monument

IEEE FRANCE Section organised an event for the 125th anniversary of IEEE on 6–7 November 2009. It took place at the prestigious Royaumont Abbey, built in the 13th century, located 40km north of Paris.

IEEE President-elect Moshe Kam delivered a talk on IEEE strategy and challenges for its future. IEEE headquarters sent Peggy Lufkin to lead a workshop on the day-to-day operations of their organisational units and this was well received.

Ten technical presentations by outstanding speakers let us know about their research in progress, including topics on telemedicine and nanotechnologies.



The last five section chairs.

The event was well attended by 70 members, a memorable celebration of the anniversary year.

Daniel Pasquet

IEEE France Section Chair

d.pasquet@ieee.org



### **ENERGYCON 2010**

www.ieee-energycon.org

18-21 December 2010 • Dhahran, Saudi Arabia

ENERGYCON 2010 is the premier IEEE forum for the exchange of experience in the practical application of electronics, power and instrumentation in the Oil and Gas and Petrochemical Industries

# **South Africa celebrates IEEE's 125th anniversary**



The event speakers included Saurabh Sinha (second right), and Larry Chasteen (far right).

ON 23 October 2009, the IEEE South Africa Section joined several other IEEE organisations around the world in celebrating IEEE's 125 Years of Engineering the Future.

Some 230 delegates attended the celebration, which was held at a formal banquet at the Johannesburg Country Club, Woodmead.

"For 125 years IEEE members around the globe have made countless con-

tributions that have helped benefit the future," declared Saurabh Sinha, Chair of IEEE South Africa Section. "Through this event, we recognise and celebrate these efforts and promote continued innovation for positive change."

A technical lecture was delivered, entitled 'Missile Defence and Early Warning Radars'. This is available at our website www.ieee.org.za. The lecture was presented

by Dr Larry Chasteen, an IEEE distinguished lecturer of Aerospace and Electronic Systems Society (AESS).

The chairman thanked EE Publishers (Pty) Ltd, who cosponsored the event. Appreciation to AESS for sponsoring our international speaker. Sincere thanks to all guests and sponsors who made the event a great happening!

Kim Ullyett EE Publishers (Pty) Ltd kim.ullyett@ee.co.za

## **Anniversary hailed at University of Patras**

THE IEEE Greece Section celebrated IEEE's 125th Anniversary at the University of Patras in December 2009.

The ceremony was at the Museum of Sciences and Technology, located in the heart of the University's Campus, with an exhibition for the evolution of telecommunications. Students from



the IEEE Student Branch University of Patras came and listened to Athanassios Skodras tell the story of 125 years history of the IEEE.

Costas Stasopoulos introduced Region 8 and its significant role in the success of IEEE. Vassilios Makios from Corallia Cluster Initiative delivered a very interesting presentation on 'Innovating in Microelectronics' and encouraged young engineers to get actively involved in IEEE.

> A Skodras Greece Section Vice Chair

### TISP supports technical education in South Africa

THE IEEE Teacher in-service programme (TISP) is a preuniversity program initiated by IEEE South Africa Section in August 2006.

TISP develops lesson plans which are available to the public via IEEE's TryEngineering Portal, www.tryengineering.com, and during the Technology Education Conference.

Nico Beute beuteN@cput.ac.za

March 2010 region@news



LEBANON SECTION held a general assembly and a 125th Anniversary Celebration on 29 October 2009.

Seventy members, including the executive committees of the Section, Chapters and Student Branches attended. The general assembly was opened with the

## **IEEE 125th anniversary hailed at general assembly in Lebanon**

Lebanese National Anthem followed by IEEE One Voice video. Nine presentations reported on the activities of society chapters (Communications, Computer, Circuits and Systems, Power), GOLD and student branches

(American University, Beirut; Beirut Arab University; Notre Dame University; Université Saint-Joseph). Following the presentations, certificates of appreciation were given to students from the different branches and to Dr M Adnan Al-Alaoui, the first Chairman of the IEEE Lebanon Section, in recognition of his work.

Imad H Elhajj Secretary ie05@aub.edu.lb

## Applying CI to real-life problems in Egypt

THE IEEE Computational Intelligence Chapter in Egypt aims to apply computational intelligence (CI) to real-life problems – 'Mimicking Nature for Problem Solving' – and to tell students about it. Workshops, public lectures and competitions have been organised on the topics of intelligent systems, multi-agent systems, neural networks and evolutionary computation, and smart environments. A



program of lectures is under way, covering industrial applications and multimedia signal processing, and neurodynamic optimisation. Check it out at: http://ieee-cis.org/

Rabie A Ramadan and Hani Hagras

## Djerba Island hosts five technical meetings for Tunisian members

ON 7–9 November 2009, five technical meetings were organised in Djerba Island, South of Tunisia. The 3-day event was attended by 35 IEEE Tunisian members from Computational Intelligence (CI), System Man and Cybernetics (SMC), and Signal Processing (SP) Societies.

The CI Tunisia Chapter organised two talks under the Distinguished Lectur-

ers Program, presented by James Bezdek on 'Visual Clustering in Relational Data' and 'Fuzzy Clustering in Very Large Data Sets'. The SP Tunisia Chapter presented Sergios Theodoridis: 'Adaptive Processing in a world of Projections' and 'Support Vector Machines: A Geometric View Point'. The SMC Tunisia Chapter coorganised the Panel Session

'New Trends- CI in Systems Design'. IEEE SMC Student Branch Chapter in the National School of Engineers of Sfax took charge of a booth to promote the society.

Contact chapter chairs:

Adel M Alimi (CI)
eee.org/r8/tunisia/cis
Ilhem Kallel (SMC)
ieee.org/mu/tunisia-smc
Chokri Ben Amar (SP)
ieee.org/r8/tunisia/sps



### **Lebanon Communications Workshop attracts around 230**

THE IEEE Communications Society Lebanon Chapter, in collaboration with the IEEE American University of Beirut Student Branch, organised the 3rd IEEE Lebanon Communications Workshop on 21 November 2009 at AUB.

The workshop attracted around 230 participants. Opening remarks from Dean Zaher Dawy, Ibrahim Hajj and Lebanon Section Chair, Elias Nassar, were followed by a plenary session on mobile networks. Technical sessions followed with speak-

ers from industry and from the Lebanese Telecom Regulatory Authority. The workshop concluded with an interactive panel discussion on the impact of electromagnetic radiation on health.

http://ewh.ieee.org/r8/lebanon/com/ieee\_lcw.html

# Industry flocks to meetings in Iraq



The meeting at Al Mustansirya University.

THREE WORKSHOPS were held in one week during 6–10 November 2009.

In Basra City in the South of Iraq, with Dr Nidaa (secretary of Iraq Section), we organised two workshops. We had a very good turnout of engineers from industry, the oil ministry and the electricity ministry. The total participants of these two workshops was about 200 engineers.

For the third, I travelled to Baghdad, to the engineering college in Al Mustansirya University. 65 academics

from the communication engineering and computer engineering departments filled the hall.

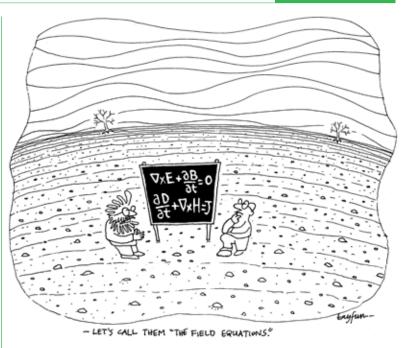
I am very glad that Iraq Section's activities in the Iraq scientific area are becoming better known: this is a very important sign. Please contact me for information about future events and let me know if you would like to help volunteer to organise activities in the near future.

> Sattar B Sadkhan Chairman Iraq Section drengsattar@yahoo.com



Two meetings were held in Basra City (the first shown above, the second below), attracting a very good turnout.





## **Port Harcourt Subsection sees relaunch under Nigeria Section**



THE IEEE Port Harcourt Subsection (under the Nigeria Section) serves over 200 IEEE members residing in Port Harcourt. The area has two major universities, each with an IEEE Student Branch.

The rebirth of the Subsection was celebrated in June 2009. Nigeria Section Chair Tunde Salihu, Past chair Isaac Adekanye, and thirty active members attended the meeting. We are planning great

events in 2010 and will be involved in IEEE activities in Nigeria and beyond.

Raphael Onoshakpor
IEEE Port Harcourt
Subsection Chair
raphael.onoshakpor@ieee.org

## **Coordination meeting establishes Lebanon PES/PE/CAS Joint Chapter**

LEBANON SECTION has a new Power Electronics/Power and Energy/Circuits and Systems Joint Chapter.

Bander Allaf, the PE Society's chapters representative for Region 8, visited Lebanon to meet the new chapter officers in Beirut. He also spent some time to talk over in detail the Society's resources, awards, contests, distinguished lecturer program, membership development, and chapter plans for 2010.



Ahmed Adra will chair the new Chapter. For more information, please go to:

www.ewh.ieee.org/r8/lebanon /SocietyChapters.htm.

**Bander Allaf** 

March 2010 region@news

section news student news

# **Bundeswehr University reveals unique approach to accelerated courses**



IEEE JOINT IAS/PELS/IES German Chapter met on 6–7 August 2009 in Munich, Germany. Our hosts were the Bundeswehr University Munich, the University German Federal Armed Forces, and FEAAM GmbH.

The meeting started with a guided city tour in Munich. At Weisses Bräuhaus we enjoyed typical Bavarian beer, food and much cosiness. This evening was a good opportunity to talk and discuss fields of interests with each other in a friendly atmosphere, to meet old friends and to make new ones.

The next day we were welcomed by Ingo Hahn and heard Dieter Gerling describe the Bundeswehr University, one of the two universities in Germany which are financed by the ministry of defence. Electrical Engineering and

Information Science is one of seven departments of the university, along with the Institute for Electrical Drives and Actuators. 3,700 students are registered, including 360 women, 150 foreign officers and 50 civil students.

Some things differ from other German universities and seem to be really special for the chapter members. To accelerate courses, students study in trimesters, so that they can achieve their masters degrees after 3.75 years. The studies must be finished after 4 years, and on average 80% finish successfully.

While typically the bachelor and master students are members of the German Bundeswehr, there is only a limited number of military PhD students. PhDs graduate after 3 years.



Peter Magyar tests a Segway vehicle.

Prof. Gerling mentioned that discipline and punctuality seems to be natural for his students, which leads to high efficiency and makes the short study times possible. Unusual for a German university, it is organised as a campus, where all facilities for living, studying, shopping are present.

The lessons and the research issues are free, as in a civil university. The professors are not members of the German Bundeswehr. This means that not only military research projects are at hand, but many projects with industrial partners too.

The institute can offer special laboratory equipment for research and development, due to the good financial support by the ministry of defence.

For more information please visit our website at: www.ewh.ieee.org/r8/germany/ias-pels.

Stephan Beineke and Ingo Hahn

### University of Porto, Portugal

# Test-driving electronic vehicles at IECON 2009

THE IEEE Student Branch from the University of Porto, Portugal, welcomed a group of visitors from Japan led by Yoichi Hori, IEEE Fellow (University of Tokyo), and Hiroshi Fujimoto (Yokohama National University).

They gave an interesting presentation of their research on motion control of electric vehicles (EVs). Visitors were given a test drive in one of the EV prototypes. An EV culture has emerged among our student members.

Rui Araújo Student Branch Chair



### UAE GOLD Chair wins Khalifa Award for Education

FADI ALOUL, IEEE UAE GOLD Chair, has been declared the 2008-9 winner of the prestigious Khalifa Award for Education. A special presentation ceremony was held at the Center for Documentation and Research in Abu Dhabi. The Khalifa Award was established to reward the efforts of all who excel in the educational field, to celebrate their efforts and creativity, and to recognise their work in research, projects and programs everywhere.

Soha Jawabreh WIE Coordinator, Sharjah, UAE soha@ieee.org

## **IEL academic consortium set up in South Africa**

IEEE SALES and Marketing, in cooperation with IEEE South Africa Section, hosted an event in June 2009 that led to the establishment of a new academic consortium in Southern Africa.

The consortium partners are the universities of Johannesburg, Pretoria, the Witwatersrand, South Africa (UNISA), Botswana, Cape Town, Tshwane Univ. of Technology, North-West Univ.,

Stellenbosch Univ. and the Polytechnic of Namibia. The partners now have access to IEEE's largest online collection, IEL (www.ieee.org/iel).

IEEE South Africa Section Chair, Saurabh Sinha, EBSCO Publishing and South African National Library and information Consortium (SANLiC), are the local promoters of this effort.

Judy Brady J.Brady@ieee.org

## **Educational collaboration** with Northern Greece groups

THE IEEE Joint Vehicular Technology and Aerospace & Electronics Systems Greece Chapter is collaborating with groups from educational institutions in Northern Greece. In December 2009, Joint Chapter Chair Fotini-Niovi Pavlidou visited the

Technological Educational Institute of Serres. 150 participants heard about plans for chapter and IEEE activities and future events in Northern Greece.

For more details, see: ewh.ieee.org/r8/greece/avtc. Fotini-Niovi Pavlidou

s region&news

### regionsstudent news

www.ieee.org/r8sac

#### Watch out...

... there are new faces you should know. The 2010 Region 8 Student Activities Committee includes Eva Lang as Chair, Amélie Anglade as the Student Representative, Pablo Herrero as the Awards and Contests Coordinator, George Paunovic as Student Paper Coordinator and the new kids on the block: Muhammad Mustafa (Jordan) and Jorge Soares (Portugal).

2010 will also be the first time in eleven years that Martin Bastiaans will not be on board SAC anymore. Martin received the 2009 MGA Larry K Wilson Transnational Award "for significant contributions to the IEEE volunteer experience and member engagement throughout the world". Thank you, Martin, for your service, your friendship and the countless hours of work you put into making Student Activities in Region 8 the best-known around the globe. We will look out for you in your future IEEE endeavours. We wish you all the best and will for sure keep you as one of our biggest fans.

A big Thank You also goes to Sau-

rabh Sinha, the South Africa Section Chair, who sparked the Counsellor Program and to Yasemin Baser, who did a great job on the Awards and Recognition Board.

#### **Congress coming soon**

The next Region 8 Student Branch and GOLD Congress is coming up soon! The 2010 edition of this biennial event in the student arena is hosted by the Student Branch Leuven, Belgium. The team there is ready to welcome around 300 students, GOLDies, IEEE volunteers and friends. They are working heavily on shaping the best congress ever seen - offering a wide range of training sessions on how to effectively run a student branch or GOLD Affinity Group, how to improve management skills and of course all about IEEE. Please visit the SBC website at www. sbcleuven.org.

#### Do you deserve an award?

The awards season has just started. If you or your friends have made some note-worthy achievements, ran the greatest and biggest stu-

dent events in your place, did some extraordinary project, or have shown true leadership and a brilliant personality in IEEE fields, why not get rewarded for it? Every year, one student will be chosen to receive the Larry K Wilson Student Activities Award for extraordinary achievements. Deadline for submissions is 31 March. If you are chosen to be the award winner, you will receive an award plaque and three years' free IEEE membership.

#### **Website competition**

Does your Student Branch have a cool website? Why not enter the Website Competition and get a chance to win cash prizes and reputation? The winners of the regional contest in 2009 were Bilkent University (Turkey), Cairo University (Egypt) and Fatih University (Turkey). On global level, the website of the Cairo University SB even came in third! Congratulations to all branches, keep up the great work!

The deadline for the 2010 edition is 15 April. We're happy to receive your submissions.

#### **Get technical**

There is also a technical side to your IEEE membership (in case you did not know!).

The link between your student experience at your student branch and the technical and professional side of IEEE are the societies. Becoming a member of a technical society allows you to be at the leading edge in your technical field, to get a close insight into what is going on in your area and to get connected to the leaders of your profession. And here's the good news: you can also form a Student Branch Technical Chapter as a link to your favourite Societies. This only requires a minimum of six students or graduate students in one or two societies. Find out more at www.ieee.

Let us know how you are doing. Shoot us an email at *r8sac@ieee. org* or visit our website at *www.ieee. org/r8sac*. Looking forward to a brilliant, communicative and successful

Your Student Activities Team, Eva, Amélie, George, Jorge, Muhammad and Pablo

#### **University of Malta**

### **Robots battle it out in Malta**

IN OCTOBER 2009, the IEEE Student Branch at the University of Malta organised a 'Robot Wars' competition, followed in November by 'Robot Wars – The Revenge'.

All the robots were inspected to ensure that they abided by the regulations,

including dimensions set to a base of 350mm (W) x 450mm (L) x 400mm (H), and a weight not exceeding 12kg. Performance was judged according to weapon design, pushing power, aesthetics, functionality, manoeuvrability and agil-

ity. Thanks to our sponsors, GFI, Playmobil and the Malta Council of Science and Technology, each winner received a cash prize of €300.

Luana Chetcuti Zammit Secretary, IEEE Malta Student Branch luana.chetcuti@ieeesb.com



Princess Sumaya University for Technology, Amman, Jordan

## First meet for Middle East Student Branch Congress

IN AMMAN, the capital city of Jordan, IEEE members celebrated 125 years of Engineering the Future and the first IEEE Middle East Student Branch Congress in May 2009.

Organized by IEEE- Princess Sumaya University for Technology (PSUT) Student Branch, in partnership with IEEE-Texas A&M University at Qatar Student Branch, the ME-SBC accommodated 120 IEEE volunteers from

more than 10 countries, to share experience, develop soft skills and gain insights into technology. The highlight of the congress was the Delegation of Aspiration Contest, which assessed teamwork and management capabilities, with prizes that included the rights of hosting the 2010 ME-SBC.

Please visit the website **www.me-sbc.com** for the latest updates.

Muhammad Mustafa



March 2010 region@news 9



WITH OPEN source software, users enjoy the freedom to run, distribute, study and improve the software. 150 students attended our Software Freedom Day in September. This was organised in three sessions:

#### **Cairo University, Egypt**

## **Cairo Software Freedom Day pulls in 150 students**

'History of Operating Systems' by Hazem Nasef, 'Google Android' (an open source OS for mobile phones) with its applications, and 'Security in Open Source Software', instructed by Mohamed Sayed.

In October, IEEE CUSB held its welcome for over 100 IEEE

members. Branch chairman Hossam Ali described the IEEE and talked about what the branch has achieved so far, and how we can make it to be the best in Region 8. We organized a trip to Salah El-Din Citadel, one of the historical monuments in Egypt. This was to celebrate the IEEE 125th



Anniversary and act as an ice-breaker for new members. We also had six teams from our branch compete in IEEE XTREME with great enthusiasm.

Shady Ahmed

Cairo University SB Secretary



**Technical University of Lisbon, Spain** 

## Workshops and presentations at initial Iberian SB conference

THE FIRST bi-annual Iberian IEEE Student Branch Congress (ISBC) kicked off in Lisbon, Portugal, in October 2009.

Organised by the Instituto Superior Técnico and Instituo Politécnico de Castelo Branco Student Branches, the event lasted for three days with workshops, presentations and social activities. Over 70 IEEE Student Members from Iberia attended, as well as those from Regions 9 and 10. The next event will take place in Spain in 2011.

Isidoro Gomes
isidorogomes@ieee.org
Jorge Soares
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#### **Hamburg University of Technology, Germany**

### Hamburg hosts first Germany Student event

THE FIRST IEEE Germany Student Conference took place on the campus of Hamburg University of Technology on 14–15 May 2009. 70 electrical and computer engineering students from 11 universities presented their research.

Christian Schildbach from University of Erlangen-Nürnberg won the Best Paper Award for his work: 'Automated Measurement Setup for the Control-to-Output Transfer Function of Power Factor Correctors'.

www.ieee-student-branch.de





**Eindhoven University of Technology, The Netherlands** 

## Study trip to Munich takes in TU München, Nokia and BMW

FROM 23 to 27 September 2009, the IEEE Eindhoven Student Branch, together with the power electronics student association Waldur (Faculty of Electrical Engineering at Eindhoven University of Technology), organised a study trip to Munich, Germany for 24 members.

Highlights of the trip included: a visit to the TU München's high voltage lab and several others -electrical isolation and electrochemical corrosion; a trip to Nokia Siemens Networks, where their latest 40G and

100G optical fibre systems where demonstrated; and a tour to the BMW car production facilities (see photo, left), where the students had a chance to see complete production process from start with drums of sheet metal till completely finished cars, as well as the new electric Mini.

The trip ended with a fulfilling visit to the Deutsches Museum.

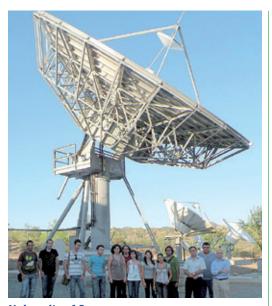
Gert-Jan van den Braak SB Eindhoven ieee@tue.nl

#### Alexandria Univ, Egypt WiMAX seminar attracts 200

IN DECEMBER 2009, the Alexandria Student Branch (www.alexsb.org) organised a seminar on '4G Systems – WiMAX and LTE'. The speakers, Essam Sourour and Ahmed Hamza (an engineer from SySDSoft), gave an introduction to mobile systems from design to operation. The seminar attracted more than 200 undergraduates from communication and electronics engineering.

Rukia Wadaat rukiawadaat@ieee.org

student news feature articles



**University of Cyprus** 

### **Students visit Hellas-Sat Earth Station**

IN SEPTEMBER 2009, the University of Cyprus Student Branch and IEEE Cyprus Section organised a visit to the Earth Station of the Hellas-Sat corporation, which owns the Eurostar E2000+ satellite.

Students learned about Hellas-Sat services, the technical specifications, and

the process of setting the satellite into geostatic orbit. Students were also taken to the control room, where engineers explained the need for continuous monitoring and for manual correction of its orbit.

> **Giorgos Michael** Student Branch Chair



**Madrid Polytechnic University, Spain** 

### SB probes deep space

IN NOVEMBER 2009, in collaboration with the IEEE Madrid Polytechnic University SB, 60 students from Seville visited the Madrid Deep Space Communications Complex - a NASA research centre in Robledo de Chavelas.

The purpose of this Complex is to process signals from deep space. Students also visited the Power Research Center, Environment and Technology (CIEMAT) and the UPMadrid Telecommunications Engineers School.

**Mateo Soto Ramos** 

Why you should be interested in **Open Access** 

#### **Roger D Pollard**

2010 IEEE Vice-President, Technical Activities

THIS COLUMN, the first of a series during my term of office, is intended to discuss issues which should be of interest to IEEE members in Region 8. The aim is not to advocate a particular position, but to encourage thoughtful participation in an on-going debate.

IEEE, with nearly 400,000 members, is the world's largest learned society advancing innovation and technological excellence. An important element of IEEE's mission is to deliver convenient, timely, and affordable access to scholarly and professional publications; en-

abling wide dissemination of research results and technical advances through 144 highly cited publications, over 1.000 conferences and more than 1,300 technology standards. [continued on page 12]

### How did you fare in last issue's Photo Quiz?

THE EDITORS would like to thank more than 40 members from 21 countries who e-mailed their answers in response to the Photo Quiz in the December 2009 issue of Region 8 News.

The magnetron from a domestic microwave oven was correctly identified by 32 entrants, but only a few of you explained the functions of the parts visible in the photo (above right).

The judge chose two winners: Nader Mechergui (Tunis) and Marco Scaglione (Torino, Italy).

There were also two special mentions. Ralph Rasshofer (Germany) sent some photos of historic World War II magnetrons from his personal collection (below right). We would also like to thank Gordon Orr (Germany) for telling us that he recognised the photo because a cockroach had got into his own microwave oven and caused a short circuit in the magnetron.

Hope you all enjoyed the

The Editors

#### Answers from the winners

#### Nader Mechergui

The photo shows a magnetron with magnet in its mounting box. The vertical plates aid in cooling the device by airflow.

#### Marco Scaglione

The device depicted is a 2.45GHz magnetron tube, commonly used in microwave ovens.

The short shaft protruding front-left is a quarterwave feeder intended to couple the RF energy into a short WR 340 guide that is then flared to match the oven cavity. The cooking volume is a small reverberant chamber working in 'food-stirred' mode (field uniformity is achieved by moving the edible target). The upper terminals supply the direct-heated cathode of the tube, while anode terminal is the device body.

Close to the cooling fins, the annular shape of the bias magnet can be guessed.



World War II magnetrons – photo courtesy of Ralph Rasshofer from his private collection.

#### Why you should be interested in Open Access

[continued from page 11]

IEEE's publications, delivered through IEEE-Xplore®, is a significant source of revenue and indirectly enables many of the activities of Sections, Societies and Councils.

The concept of 'Open Access' to the technical literature has come to mean its free availability on the public internet, permitting anyone to read, download, copy, distribute, print, search, or link to the full text of an article.

Recent open access initiatives have focused on tax-payer-funded research. The movement has been strongest in the life sciences where many of the funding bodies mandate open access publication as a condition of their research grants. There is a move for the European Commission to mandate open access to all publicly-funded research and it is likely that other governments in our region will follow.

However, technical literature costs money to produce or publish. Currently, the costs of most publishing in the subjects in which IEEE members are engaged are borne by the readers

"IEEE's publishing activities will not be able to survive without a sustainable business model"

or their employers through the charges that publishers make for subscriptions to their periodicals. It needs to be recognised that a move to totally free Open Access for all users implies that others will have to pay for the costs associated with operating the peer review process, editing, publishing and dissemination on the internet, as well as maintaining an ever-growing archive in perpetuity.

There are some important principles that underpin scholarly publishing:

Peer review is critical to

maintaining high quality and editorial integrity.

- Adaptable business models are necessary to sustain the enterprise.
- Scholarly and scientific publications should be more accessible with improved functionality to a wider public and the research community.
- Sustained archiving and preservation are essential to reliable publishing.
- The results of research need to be published and maintained such as to maximise creative reuse.

IEEE's publishing adheres to these principles but will not be able to survive without a sustainable business model if the majority of the material is made freely available under open access mandates. There are a number of possible models and we, in IEEE, need to carefully review the full spectrum of approaches.

Unlike the model operated in the life sciences, motivated by the understandable desire of patients to get timely access to new treatments, access to engineering, science and similar types of information is not as urgent. Delayed public access of 12 months or more can provide enough time for organisations publishing this content to recover their upfront investments without compromising the value of the information.

The payment of a publication fee, which is currently around \$3,000 for periodicals which use that model, is a way to recover the cost. However this will disadvantage authors where the funding levels cannot support publication fees or who reside in countries where such fees are unaffordable and make it impossible to publish their work in high quality journals.

I feel confident that IEEE members in Region 8 who contribute a significant proportion of the articles and are major users of IEEE's output, will engage fully in the debate.

### **Conference calendar**

Workshops, conferences & symposia in Region 8
See also www.ieee.org/web/conferences/home

#### **MARCH**

#### **PerCom 2010**

Eighth Annual IEEE International Conference on Pervasive Computing and Communications 29 March – 2 April 2010 Mannheim, Germany www.percom.org

#### **APRIL**

#### **CAVMAG 2010**

Radar System powered by Cavity Magnetron 19–20 April 2010 Bournemouth University, UK

www.cavmag2010.org.uk

#### **MELECON 2010**

15th IEEE Mediterranean Electrotechnical Conference 26–28 April 2010 Valletta, Malta www.melecon2010.org

#### **ESANN 2010**

European Symposium on Artificial Networks, Computational Intelligence and Machine Learning 28–30 April 2010 Bruges, Belgium

www.dice.ucl.ac.be/esann

#### MAY

#### **EEEIC.EU**

9th International Conference on Environment and Electrical Engineering 16–19 May 2010 Praha, Czech Republic http://eeeic.eu

#### **WFCS 2010**

8th IEEE International Workshop on Factory Communication Systems 18–21 May 2010 Nancy, France http://wfcs2010.loria.fr

#### ETS 2010

15th IEEE European Test Symposium 25–28 May 2010 Dorint Hotel Don Giovanni Praha, Czech Republic http://ets2010.felk.cvut.cz

#### **JUNE**

#### **ISCE2010**

14th IEEE International Symposium on Consumer Electronics 07–10 June 2010 Braunschwig, Germany http://isce2010.org

#### **MIKON 2010**

18th International Conference on Microwaves, Radar & Wireless Communications 14–16 June 2010 Vilnius, Lithuania www.mikon-2010.org

#### **IRS 2010**

11th International Radar Symposium 16–18 June 2010 Vilnius, Lithuania www.irs-2010.org

#### **ROEDUNET 2010**

RoEduNet IEEE International Conference 24–26 June 2010 Lucian Blaga University of Sibiu, Romania http://roedu2010.ulbsibiu.ro

#### **JULY**

### IEEE HealthCom 2010

Ambient Assistive Living for Better Health 01–03 July 2010 Lyon, France www.ieee-healthcom.org

#### **ISIE 2010**

IEEE International Symposium on Industrial Electronics 04–07 July 2010 Bari, Italy www.isie2010.it

#### Note to Organizers

Only IEEE co-sponsored conferences and workshops in Region 8 are eligible for free publicity here. Send details as a plain text message to r8news@ieee.org, putting R8 News Calendar in your subject line. Remember to state the event's full title, location, date and URL.

#### **IPCC 2010**

IEEE International Professional Communication Conference 07–09 July 2010 University of Twente Enschede, Netherlands http://ewh.ieee.org/soc/pcs

#### **SIBIRCON**

IEEE International Conference on Computational Technologies 11–15 July 2010 Irkutsk, Russia http://sibircon2010. sibsutis.ru

#### **OCTOBER**

#### **IIH-MSP 2010**

6th International
Conference on Intelligent
Information Hiding
and Multimedia Signal
Processing
15–17 October 2010
Darmstadt, Germany
www.igd.fraunhofer.de

#### **NOVEMBER**

#### Histelcon 2010

2nd IEEE Region 8 Conference on the History of Telecommunications 03–05 November 2010 Madrid, Spain www.aeit.es/histelcon2010

#### ISABEL 2010

3rd International Symposium on Applied Sciences in Biomedical and Communication Technologies 07–10 November 2010 Rome, Italy www.isabel2010.it

#### **DECEMBER**

#### **ICECS 2010**

IEEE International Conference on Electronics, Circuits and Systems 12–15 December 2010 Athens, Greece www.icecs2010.org

#### EnergyCon 2010

Towards Sustainable Energy 18–21 December 2010 Manama, Bahrain www.ieee-energycon.org