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Scan me with your smartphone to reach the R8N website.

The keynote talks, gala dinner and Honors Ceremony took place in the main hall while the bustling exhibition space thrived just next door

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Sections Congress convenes in Region 8 for historic first

AMSTERDAM, Netherlands played host to some 1,000 delegates attending IEEE Sections Congress on 22–24 August, marking the first time the event has taken place outside North America.

Held every three years since 1984, Sections Congress provides IEEE Section leadership with a priceless opportunity to influence the future of IEEE. The theme for SC2014 was 'Inspiring Our Leaders of Tomorrow', comprising three program tracks: Enhance Member Satisfaction, Improve Volunteer Experience and Reach Globally with Local Touch.

One key purpose of SC2014 was to encourage discussion on a shortlist of recommendations so that the Primary Section Delegates attending could vote on them. The top five recommendations were:

- Include free access to IEEE Digital Library as a member benefit. Promote other IEEE services and products based on their usage and preferences (adopt Google Business Model).
- Develop an incentive and recognition program for companies that invest in full or partial support of their employees' IEEE membership dues.
- Introduce loyalty rewards such as publication access, conference fees, standards for continued membership.
- Provide a tool to build, promote, record, host and broadcast technical events at the local level and make them available to IEEE members.
- Enhance vTools for better usability by volunteers and provide a training program to the Sections.

SIGHT

In recent years, IEEE has placed great emphasis on Humanitarian Technology Activities, instituting the Humanitarian Ad Hoc Committee (HAHC) in 2011. As part

...continued on page 2 ▶

Look inside this issue for more photos of the Region 8 Committee meeting and Sections Congress 2014, held consecutively in August at Amsterdam RAI

...as its host Benelux Section warms up with R8C meeting

IMMEDIATELY before Sections Congress, on 21–22 August, Amsterdam was also the venue for the 103rd IEEE Region 8 Committee meeting, organised and hosted by Benelux Section.

The Region's director, secretary and treasurer, and appointed officials representing Student Activities, Membership Activities and Technical Activities, gave their reports, along with several guest presentations. It was the last such meeting to be chaired by Martin Bastiaans as Region 8 director, so we would like to thank him for his time and effort dedicated to the

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From left: Jacek Zurada, IEEE President Roberto de Marca, Region 8 director-elect Costas Stasopoulos, Josef Modelski and Region 8 director Martin Bastiaans

Milestone celebrates how Polish team initially cracked the Enigma code

IN front of the Mathematics Institute, Polish Academy of Sciences, Warsaw, an IEEE Milestone has been dedicated with the citation: "First Breaking of Enigma Code by the Team of Polish Cipher Bureau, 1932–1939. Polish Cipher Bureau mathematicians Marian Rejewski, Jerzy Różycki and Henryk Zygalski broke the German Enigma cipher machine codes. Working with engineers from the AVA Radio Manufacturing Company they built the 'bomba' – the first cryptanalytic machine to break Enigma codes. Their work was a foundation of British code breaking efforts which, with later American assistance, helped to end World War II."

The impressive and well-attended ceremony began with an international seminar entitled 'From First Breaking of Enigma Code to Modern Cryptography', held at the prestigeous Senate Hall of the Warsaw University of Technology, Warsaw. The IEEE Milestone

...continued on page 5 ▶

Sections Congress 2014

Amsterdam, Netherlands ▪ 22–24 August 2014

IEEE president Roberto de Marca

SC2014 Steering Committee chair Magdalena Salazar Palma

Keynote speaker Luc Van den hove

▸ continued from page 1...

of a strategic effort toward member engagement, HAHC has instituted a program called Special Interest Group on Humanitarian Technology (SIGHT). Its mission is to bring together members and IEEE OUs working in humanitarian fields and to encourage and promote them in activities that use humanitarian technologies; increasing awareness of members of the potential of their work to improve the standard of living of underserved populations; to engage with NGOs, Civil Society Organizations, UN Organizations, Corporates and other similar bodies to synergize efforts in delivering useful and sustainable technologies in their operations.

If you are interested in SIGHT, please contact program manager Holly Schneider Brown, sight@ieee.org.

IEEE Foundation

The IEEE Foundation cultivates resources and relationships to advance IEEE's core purpose to foster technological innovation and excellence to benefit humanity. It fulfills its purpose by awarding grants to innovative projects and other fund activities. The IEEE Foundation invites grant applications exclusively from IEEE organizational units for projects that address the predefined theme identified by the IEEE Foundation for each year.

Please visit ieeefoundation.org for more information if you are planning a project or have an ongoing project.

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IEEE TV

Remember, you can watch the 2014 IEEE Honors Ceremony and other highlights of SC2014 at ieee.tv.

Zhijia Huang

IEEE Medal of Honor recipient Jaylant Baliga

Region 8 Committee

Amsterdam, Netherlands • 21–22 August 2014

busy schedule of the role over the past two years and welcome his support on the committee as past director from next year. From January 2015, our new director will be Costas Stasopoulos.

Furthermore, by the time this issue reaches you, we will have the result of elections for IEEE president-elect and Region 8 director-elect. Please check the main IEEE and Region 8 websites for the results.

Elections took place during R8C for its new Opcom members from 2015. Our thanks go to current members for their hard work: Ali El-Mousa, Brian Harrington, Aleksandar Szabo, Pablo Herrero and Carl Debono. From 2015, the team will comprise Christian Schmid (secretary), Brian Harrington (treasurer), Dusanka Boskovic (vice-chair Member Activities), Mona Ghassemian (vice-chair Student Activities) and Igor Kuzle (vice-chair Technical Activities).

Milestones

R8C announced the Region's newest IEEE Milestone, dedicated on 5 August, marking the first breaking of the Enigma code by the team of Polish Cipher Bureau, 1933–1939, in Warsaw, Poland. This is the first Milestone for Poland Section.

It celebrates Polish Cipher Bureau mathematicians Marian Rejewski, Jerzy Różycki and Henryk Zygalski in breaking the German Enigma cipher machine codes in the years leading up to World War II, as they worked with engineers from the AVA Radio Manufacturing Company to build the first cryptanalytic machines. Read more on this extraordinary story on pages 1 and 5 of this issue.

A Milestone was also dedicated on 25 September at the Rheinfelden Hydroelectric Power Plant in Germany for its work between 1898 and 2010. This is the first Milestone for Germany Section.

A third Milestone, for the first generation and experimental proof of electromagnetic waves 1886–1888, is due to be dedicated soon in Karlsruhe, Germany.

IEEE Medals

Four Region 8 members were honoured with IEEE medals during Sections Congress: Rüdiger Urbanke (Switzerland Section) and Thomas Richardson; Franz Laermer and Andrea Urban (Germany Section); Lyndon Evans (Switzerland Section) and David Neil Payne (UK & Ireland Section).

Section name change

The United Kingdom & Republic of Ireland Section has been renamed 'United Kingdom & Ireland Section', which may be shortened to 'UK & Ireland Section'.

Executive director updates

Total IEEE membership was reported as 382,808, and students and eMembers now have immediate access to a printable version of their membership cards.

SASB has approved two new Industry Connections activities for standards in the areas of Green Power Generation and Surgical Robotics. EPICS in IEEE now involves 51 approved projects in 17 countries. Some 110 IEEE volunteers participated in the Teacher In-Service Program Training Workshop in Dubai on 13–14 June.

IEEE Spectrum celebrated its 50th birthday this year with a Special June issue predicting what the next 50 years may bring.

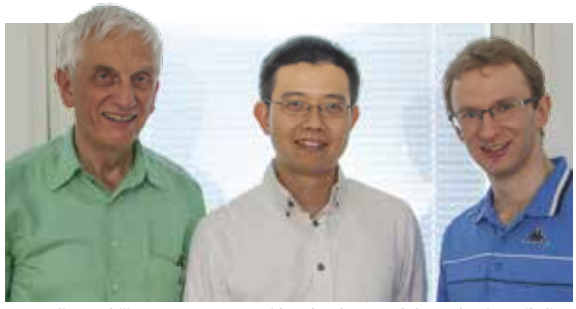
Zhijia Huang

Above: Opcom and delegates rub shoulders

Left: Q&A time for the candidates for the next Operation Committee

Above: Martin Bastiaans leads the proceedings

Right: coffee breaks provided an opportunity to network with international colleagues between sessions



Your editors: Zhijia Huang (centre) with Roland Saam (left) and Bojan Nikolic

Events big as they come – from SYP to R8C to SC2014

IT has been a really busy summer this year, full of great IEEE events. This issue represents a photo album of these important activities and we hope you can join us next time.

The season kicked off with a very successful Student and Young Professional Congress (SYP) held in Krakow, Poland, organised by a group of enthusiastic Student Members and Young Professionals with help from SAC and YP committees. We encourage those who participated in SYP to bring the passion back to your local Student Branches, YP AGs and Sections to inspire the next generation of volunteer leaders and help to bring in more new volunteers. Read our SYP report on page 10 in this issue.

The next event was the Region 8 Committee Meeting held in Amsterdam, at which delegates received reports and updates from committee members and guest speakers. You can read our summary on pages 1 and 3 in this issue, and further reports are on the Region 8 website.

R8C led straight into IEEE's triennial Sections Congress, to which our production editor Alistair Dabbs also attended in person to engage with volunteers and officials, and experience IEEE's uniquely international breadth in person. Read our report on SC2014 on pages 1–2.

On the theme of engagement, we want Region 8 members to keep in contact throught all channels. Social media is one way in which we would like to engage you, especially Student Members and YPs.

Finally, a new member has joined the *IEEE Region 8 News* team: Bojan Nikolic (**bnikolic@ieee.org**), who will focus more on Students and Young Professional news.

Zhijia Huang

TUL honours past director of Region 8 Josef Modelski

ON 2 July, Jozef Modelski, past director of Region 8, was awarded the title of Doctor Honoris Causa of the Technical University of Lodz (TUL). Professor Modelski was recognised as a distinguished scientist of worldwide authority, with the citation "for the integration of the scientific community in Poland as well as for the promotion of Polish achievements abroad."

The ceremony was attended by 300 guests, including representatives of government and of the Polish Academy of Sciences, colleagues from several Polish universities and friends.

Following the presentation of the award, the Laureate delivered a lecture on the theme: 'What we owe to the microwaves'.

Modelski was Region 8 director from 2009–10 and will be familiar to readers of *IEEE Region 8 News* for his articles about the IEEE Technical English training programs he founded in Warsaw.

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News & articles
r8news@ieee.org

Student News email
r8news@ieee.org

IEEE Region 8 website
www.ieeer8.org

Editors
Zhijia Huang
zhijia.huang@ieee.org
Roland J Saam
r.saam@ieee.org
Bojan Nikolic
bnikolic@ieee.org

Editorial production
Alistair Dabbs
a.dabbs@ieee.org

Printing & mailing
Theresa Smith
tlsmith@ieee.org

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Please notify all problems regarding membership, publications delivery and change of address directly to IEEE member services. See website www.ieee.org and email member-services@ieee.org.

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Deadlines for upcoming issues

February 2015 issue ..... *deadline: 1 December 2014*
May 2015 issue ..... *deadline: 1 March 2015*
August 2015 issue ..... *deadline: 1 June 2015*

region 8 IEEE

REGION 8 OPERATING COMMITTEE OFFICERS 2014

Operating Committee (OpCom)

Director
Martin Bastiaans (Benelux)
m.j.bastiaans@ieee.org

Director-Elect
Costas Stasopoulos (Cyprus)
costas@ieee.org

Past-Director
Marko Delimar (Croatia)
m.delimar@ieee.org

Secretary
Ali El-Mousa (Jordan)
a.elmousa@ieee.org

Treasurer
Brian Harrington (UK&RI)
b.harrington@ieee.org

V/C Member Activities
Aleksandar Szabo (Croatia)
a.szabo@ieee.org

V/C Student Activities
Pablo Herrero (Germany)
pablo.herrero@ieee.org

V/C Technical Activities
Carl Debono (Malta)
c.debono@ieee.org

Appointed Members

Young Professionals Program Chair
Rafal Sliz (Finland)
rafal.sliz@ieee.org

Membership Development Chair
Antonio Luque Estepa (Spain)
aluque@ieee.org

Professional Activities Chair
Urmet Jänes (Estonia)
urmet@uninet.ee

Region 8 News Editor in Chief
Zhijia Huang (UK&RI)
zhijia.huang@ieee.org

Region 8 News Editor
Roland Saam (UK&RI)
r.saam@ieee.org

Sections Congress Coordinator
Athanassios Skodras (Greece)
skodras@ieee.org

Student Representative
Christian Schmid (Austria)
chms@gmx.net

Chapter Coordination Chair
Elya Joffe (Israel)
eb.joffe@ieee.org

Conference Coordination Chair
Jan Haase (Austria)
janhaase@ieee.org

Educational Activities Chair
Niovi Pavlidou (Greece)
niovi@auth.gr

Industry Relations Chair
Terje Gjengedal} (Norway)
terje.gjengedal@hotmail.com

Standards Coordinator (ad interim)
David Law (UK&RI)
david_law@ieee.org

Awards & Recognition
Charles Turner (UK&RI)
charles.turner@kcl.ac.uk

Electronic Communications Coordinator
George Michael (Cyprus)
xeirwn@ieee.org

Voluntary Contribution Fund Coordinator
Daniel Pasquet (France)
d.pasquet@ieee.org

History Activities Coordinator
Tony Davies (UK&RI)
tonydavies@ieee.org

Life Members Coordinator
Jacob Baal-Schem (Israel)
j.baal.schem@ieee.org

Women in Engineering Coordinator
Joyce Mwangama (South Africa)
joyce.mwangama@ieee.org

IEEE
Advancing Technology for Humanity

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

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Enigma and the code-breakers

A true-life wartime spy thriller that began with three Polish mathematicians

The Enigma cipher machine

ENIGMA was an electrically wired rotor machine: a sequence of ciphers is generated by the motion of rotors inside the unit. It was one of several cipher machines that were developed in Germany for military use after World War I.

During the 1930s, a trio of Polish mathematicians – Marian Rejewski (1905–1980), Henryk Zygalski (1907–1978) and Jerzy Różycki (1909–1942) – resolved the Enigma cipher machine and broke through its coded messages. Working with engineers from AVA Radio Manufacturing Company, they built the *bomba*, the first cryptanalytic machine designed to attack Enigma.

The Reichsmarine of Germany began using Enigma cipher coding machines in 1926, and the Reichswehr adopted it in 1928. The Polish Cipher Bureau had achieved many successes during the Polish-Soviet War of 1919–1921, and during the 1920s it monitored radio signals resulting from German military exercises. In 1928, the Bureau encountered coded messages that were thought to be generated by a cipher machine because of the randomness of their letters. Intelligence services of other countries declared that it was impossible to break these codes.

Both English and Polish versions of the dedication plaque are embeded in the monument

By the end of 1932, Rejewski had determined the wiring of the rotors of the military version of Enigma. The French had forwarded him two German manuals that described its operation, and he devised a system of equations that modelled the permutations of the six indicators at the beginning of Enigma messages, which were used by the sending operator to transmit the message setting to the receiving operator.

In December that year, Rejewski received from the French the setting sheets for September and October. This allowed him to substitute for some of the unknowns in his system of equations and solve for the wiring of the rotors.

The Polish codebreakers developed various techniques to determine the settings, resulting in the production of two codebreaking machines – one machine to produce a catalogue of patterns and another to determine the rotor settings. In 1934, Rejewski was able to exploit patterns, which he called 'characteristics', produced by the six-letter indicators at the beginning of Enigma messages.

Working with the engineers at AVA – Radio Manufacturing Company, Warsaw, the team built the famous *bomba* codebreaking machine. The six *bomby* (plural in Polish for *bomba*) searched through all 105,456 rotor settings for those that exhibited patterns that could be determined from the indicators after a sufficient number of messages were intercepted. As there were three rotors and three positions for rotors in Enigma, there were six possible rotor orders – therefore requiring six *bomby*.

In July 1939, as war with Germany loomed over Poland, the Polish codebreakers met just outside Warsaw with British and French codebreakers to outline their successes in breaking Enigma. The British and the French were each given an Enigma double and information on the methods used by the Polish team to solve daily keys.

With the German invasion of Poland on 1 September 1939, British codebreakers at Bletchley Park took over the work on Enigma. British mathematicians Alan Turing and Gordon Welchman and engineers Harold 'Doc' Keen and Thomas Flowers developed cryptanalytic machines to attack Enigma and other German ciphers.

An IEEE Milestone at Bletchley Park in the UK commemorates the development of the Turing-Welchman *bombe*. The British *bombe* and the Polish *bomba* were used together: the *bombe* searched for patterns in Enigma messages, while the *bomba* searched for patterns in Enigma indicators.

When the US entered the war, US Navy mathematicians at Naval Communications in Washington, DC, designed cryptanalytic machines to attack Japanese ciphers and machines to assist the British with the attack on naval Enigma.

These codebreaking machines were engineered by Joseph Desch and colleagues at the Naval Computing Machine Laboratory located at National Cash Register Company in Dayton, Ohio. One of the machines to attack naval Enigma was the US Navy cryptologic *bombe*, commemorated with an IEEE Milestone at the Naval Computing Machine Laboratory.

Ryszard Jachowicz
Chair, Poland Section

From left: vice mayor of Warsaw Włodzimierz Paszyński, IEEE president Roberto de Marca, chair of IEEE Poland Section Ryszard Jachowicz and mathematician Marian Rejewski's daughter Janina Sylwestrzak

Milestone dedicated in Warsaw

▸ *continued from page 1...*

plaque dedication ceremony then-took place on a square in front of the Mathematics Institute, Polish Academy of Sciences.

Many distinguished representatives from IEEE were in attendance, including IEEE president Roberto de Marca, VP Technical Activities Jacek Zurada, director Div IV Jozef Modelski, Region 8 director Martin Bastiaans and members of Poland Section along with its chair Ryszard Jachowicz.

The ceremony was attended by some 300 people, with representatives from local government, the Polish Academy of Sciences, Polish Federation of Engineering Associations, Association of Polish Electrical Engineering (SEP), the French Chambre d'Affairs and the First Secretary of the British Embassy in Warsaw. Also in attendance was a significant number of high ranking Polish army officers, family representatives of the awarded mathematicians and many others.

The plaque celebrates the development of the first cryptoanalytic machines. It is the Polish Section's first IEEE Milestone.

EPICS protects schools from lightning strikes

IN Uganda, climate change has been dramatic and continues unabated. This year it has rained continuously and with the changing weather patterns, lightning has killed or injured pupils at schools throughout the country.

Lightning hazards are partly attributed to widespread deforestation because several tree species known for conducting lightning are among those being cut down. Replacing them could take many decades.

Through the EPICS in IEEE program, engineering students at Kyambogo University, Uganda, with Kyambogo College science and Kiswa primary school, have come together to design lightning arrestors for installation into two schools in the central region: Kiswa primary and the Child Learning and Development Centre at Kyambogo.

The overall project goal is to reduce the number of lightning-based injuries in Ugandan communities. Other goals include:

- For students at Kyambogo College and pupils at Kiswa primary to be attracted to future engineering related career paths.
- To increase awareness of the dangers of lightning.
- To enable engineering students to develop, build and install lightning arrestors and related technologies.
- To get Ugandan communities to accept the need for lightning arrestors.

Project teachers and students were impressed: "It is amazing that we actually moved step-by-step to design, construct, test and install lightning arrestors to control the fatal and injurious effects of lightning to our dear pupils and students".

The project has reduced vulnerability to lightning-related injuries and deaths. The school is now a safety model in the area in terms of reducing lightening threats.

Many additional benefits were discovered as pupils were inspired by the project and learned fundamental technical skills.

In turn, the engineering students involved were able to translate their engineering knowledge into practical solutions. They gained confidence in their engineering competences by mentoring science students of Kyambogo College School in applying engineering skills.

EPICS in IEEE management provided key resources and guidance to the project. They developed a spirit of teamwork by sharing roles with high school students, primary pupils, engineering students, NGO staff, school staff and the nearby community.

The lightning arrestor project touched only a small area in Uganda but it demonstrated how it was possible to involve the government, the private sector, civil society and the development partners to achieve its goals.

Lwanga Herbert
lwangaherbert@ieee.org

MTT-S invites Chapter chairs to Gdańsk to learn best practice

ON 17 June, IEEE Microwave Theory and Techniques Society organized the Chapter Chair Meeting in the beautiful historical city of Gdańsk in Poland in conjunction with Microwave and Radar Week. Representatives of all Region 8 Chapters of MTT were been invited and were entitled to make use of a travel grant.

This very friendly meeting provided a lot of fundamental information on how to run Chapter events successfully and how the Society and the Section can give support. The main task of Chapters and their chairs is to represent the Society to their members.

For this reason, MTT-S takes a great deal of care of Chapter volunteers at meetings like this. It's also a great opportunity for participants to meet their colleagues, with whom they can exchange ideas and share experiences.

The meeting was chaired by its organizer Jan Macháč, the Region 8 MTT-S coordinator. Welcome talks were given by MTT-S past president Richard Snyder, IEEE Div IV director Józef Modelski and Region 8 coordinator Elya Joffe. Wojciech Krzysztofik, IEEE AP/AES/MTT chairman, joined in with a poster session showing best practice.

Some 28 attended and later enjoyed a barbeque long into the night.

Thanks go to the MRW organizers for establishing such a warm and pleasant atmosphere.

Jan Macháč, MTT-S Region 8 coordinator
Daniel Pasquet, MTT-S AdCom member, MGA chair

AFRICON 2015

Addis Ababa, Ethiopia • 14–16 September 2015

IEEE Region 8 flagship conference of the African continent, providing a platform for academics and industry professionals from all over the world to share ideas and present their latest research

http://africon2015.org

R8 director gives university talk in much-awaited visit to Iran

"YOU are truly exemplary!" wrote Region 8 director Martin Bastiaans in the branch guestbook.

As a part of his much-awaited visit to Iran, Prof Bastiaans paid a visit to the historical city of Isfahan, aptly named 'Half of the World' as it is home to two UNESCO World Heritage Sites.

He visited Isfahan University of Technology on 19 May and gave a presentation on Region 8 committees and activities in some detail to more than 100 Electrical and Computer Engineering students and the faculty.

Mahmud Fotuhi Firuzabad took to the stage to present his section's achievements over the past year. He concluded his presentation by announcing that the IUT Student Branch had been chosen as winner of Iran Section's 2014 Distinguished Student Branch Award. This was not a first, since IUT Student Branch had won this award previously in 2010.

At the end of the ceremony Mehdi Moallem joined Prof Bastiaans and Prof Fotuhi to congratulate branch members and to reward them with a certificate of appreciation for their valued services and contributions.

Aliakbar Tadaion
Iran Section Newsletter editor

Tunisia hosts four-day summer school on Computational Intelligence

ON 11–14 August, the Tunisian Chapter of the IEEE Computational Intelligence Society organized a summer school on Computational Intelligence Theory and Applications (CITA 2014).

The program included 13 talks presented by nine speakers from USA, Netherlands, Canada, Turkey, Italy, United Kingdom, Germany and Tunisia. Over the course of four days, it included a doctoral consortium and an evaluation exam at the end.

Participants also enjoyed a gala dinner and an excursion to Bardo museum, Carthage and Sidi Bousaid village.

Among the speakers, we note the participation of Okyay Kaynak – an IEEE Fellow; UNESCO chair on Mechatronics, Bogazici University, Turkey and the Harbin Institute of Technology, China – as distinguished lecturer from the IEEE CI Society.

Thirty participants came from nine countries: Belgium, Egypt, Algeria, Senegal, Spain, Qatar, Lithuania, United Kingdom and Tunisia. The summer school was a good opportunity to share skills, methods and insights, and to exchange ideas, experiences and thoughts.

An award for the best student presentation was delivered in the closing session to Ruben Verhack from Ghent University, Belgium.

As always, an IEEE booth was organized by the IEEE Sfax Subsection in order to encourage participants to join IEEE and its technical societies.

Habib Kammoun, CIS Tunisia Chapter chair
http://sites.ieee.org/tunisia-cis/

Above: Okyay Kaynak, IEEE distinguished lecturer, presents his talk on Intelligent Systems

Left: Manuel Roveri, IEEE CIS Student Activities committee chair, explains Supervised Learning

The conference room was full with nearly 100 attendees actively participating in the presentations

Pretoria welcomes back South African AP/MTT/EMC Joint Chapter Conference

ON 5–6 May, South Africa held another successful conference of the South African IEEE AP/MTT/EMC Joint Chapter, with five plenary talks and 37 technical presentations, attracting 93 registered delegates.

The aim of the conference was to bring together engineers and researchers from both the South African industry and academia who work in fields related to Antennas and Propagation (AP), Microwave Theory and Techniques (MTT) and Electromagnetic Compatibility (EMC). The conference covered research and development activities centred around the Square Kilometre Array (SKA) radio-astronomy project, antennas, radar and remote sensing, active and passive microwave devices, electromagnetic wave propagation and radio frequency spectrum management, computational electromagnetic modelling, and electromagnetic compatibility.

The main conference organizer Johan Joubert said: "We achieved the aim and also were honoured to have five plenary talks by distinguished guests from around the globe, including Prof Theodoros Samaras of Aristotle University of Thessaloniki, Dr Giuseppe Addamo of CNR IEIIT Torino, Prof Guy Vandenbosch of Katholieke Universiteit Leuven, IEEE EMC-S Distinguished Lecturer Dr John Norgard of NASA, and Dr Quentin Williams of CSIR Meraka Institute."

The conference brought new international collaboration opportunities, especially with European researchers. Albert Lysko said: "Prof Vandenbosch was invited via a partnership with EU Collaboration in Science and Technology (COST) Action IC1102 VISTA. The discussions during and outside of the conference, especially with the South African Department of Science and Technology, are expected to open new opportunities".

This conference is usually held biennially. The tradition dates back to the very first conference called The South African Institute of Electrical Engineers (SAIEE) Symposium on Antennas and Propagation, held at the CSIR Conference Centre, Pretoria in May 1983, and the First Joint Symposium on Antennas and Propagation/Microwave Theory and Techniques held in August 1986, together by SAIEE and IEEE.

Gratitude was expressed to the sponsors: University of Pretoria, CSIR Meraka Institute, DS Communications, CST, EM Software & Systems, ANSYS, GEW Technologies, Protea Electronics, Inala Technologies and Concilium Technologies.

http://ceatup.co.za/ieeeconferences

Chapter Chair Albert Lysko (left) and Conference Chair Johan Joubert discuss follow-up events

EUROCON 2015

Salamanca, Spain • 8–11 September 2015

IEEE Region 8-sponsored forum for the exchange of ideas, and open and direct discussion on the development of circuits and systems, multimedia, information and communication technology, and energy and power systems

http://eurocon2015.usal.es

'Humanlike motion' paper wins Young Author award

IEEE Robotics & Automation Society Italian chapter announced the winner of the sixth edition of its Young Author Best Paper Award, sponsored by IEEE Italy RAS Chapter.

The winner was Andrea Maria Zanchettin for presenting the paper 'Achieving humanlike motion: Resolving redundancy for anthropomorphic industrial manipulators' by AM Zanchettin, L Bascetta and P Rocco, published in *Robotics Automation Magazine*, IEEE, 20(4):131–138, December 2013.

Gianluca Antonelli
Chair, Italy RAS Chapter

Gianluca Antonelli presents the Young Author Best Paper Award to Andrea Maria Zanchettin (left) and welcomes 2015 chair Lucia Pallottino (right)

ABB Oman training program looks at the energy industry

ON 24–28 August, a training program 'World of Industrial Operations' was held at ABB Oman. Dr Dharmasa – Oman Section Membership Development and branch counselor at Caledonian College of Engineering – reports on the comprehensive and interactive program.

The program covered topics such as energy-saving practices in residential and industrial installation, and technical specifications of high and low voltage devices for varying weather conditions.

Site visits included demonstrations of energy savings at Cube, Oman, and the development of power products at Al –Hassan, Int-Elect Industries, Ray International, Oman.

Free downloadable power engineering technical software is available on ABB website which is extremely useful for teaching. Practicing engineers can find useful development at the ABB-Lab at Caledonian College.

An attendee said: "It was the best training of that type that I had ever attended and the course inspired me to create the next Generation of Engineer in Oman".

HISTELCON 2015

Tel Aviv, Israel ▪ 16–21 August 2015

Historical symposium for the exchange of ideas on engineering and technology history within IEEE Region 8 from different technological fields

www.ieeeghn.org/wiki/index.php/Histelcon

ITS Tunisia Chapter launches with well-attended meetings

ON 3 March, the Tunisian Chapter of the IEEE Intelligent Transportation Systems Society received its approval. Chapter activities began with the the organization of the 3rd International Conference on Advanced Logistics and Transport, in Yassmine Hammamet, Tunisia.

Some 80 participants attended the program that included six plenary talks and awards for best paper and the best student paper. An IEEE booth organized by the IEEE Sfax Subsection promoted IEEE and the ITS Society membership.

The conference was a good opportunity to share skills, methods and insights; to exchange ideas, experiences and thoughts; and to create values by implementing new ideas. For more information on the event, visit www.icalt.org.

On 5 May, at the Institute of Transport and Logistics in Sousse, the Chapter organized an ITSS distinguished lecture, presented by Wei-Bin Zhang from the University of California, Berkeley, USA and ITS Society VP conferences.

Prof Zhang's lecture gave details about the California PATH program research as well as the main parts of intelligent transportation systems: Advanced Traffic Management Systems; Traveler Information; Public Transportation; Commercial Vehicle Operation; and Vehicle Control.

The talk was attended by 180 faculty members, graduate and undergraduate students. Audiences showed great interest in the lecture, and were impressed by the recent developments and novel ideas.

Habib Kammoun
ITS Tunisia Chapter chair
http://sites.ieee.org/tunisia-itss/

Bottom: distinguished lecturer Wei-Bin Zhang (third left) with ITS Tunisia Chapter members

Faculty members in ISTLS with Wei-Bin Zhang

Young Professionals: the year in review

2014 has been an action-filled year and new events have made it a very exciting time to be part of IEEE Young Professionals!

Within Region 8, the number of YP Affinity Groups increased through the Revitalization and Initialization Program. Seven sections were approached to start Affinity Groups and, as of September, five were in the final stages of their application. As a result of this effort, there are now 40 YP Affinity Groups (out of the Region's 56 sections).

One of the highlight events of 2014 was the Students and Young Professionals Congress, which tootk place in August in Krakow, Poland. We ran two workshops opened to all participants. It was rewarding to see the Young Professionals profile becoming more prominent and we hope it will be even better at the next SYP congress.

Without doubt, the most important process of this year has been the successful transition from GOLD to Young Professionals. The old GOLD image has been reborn under a new name, a new logo, and a fresh outlook and eagerness to grow and evolve. The high social network visibility that we have enjoyed has helped greatly in this transition.

The criteria for becoming a Young Professional has been extended from 10 years after graduation to 15 years, with the option of remaining past this period, leading to a significant increase in the number of Young Professional members in the Region.

We have launched an Event Exchange Program with the aim of creating a database of past events from the Region to serve as an idea-generator for chairs regarding what activities they could organize and how to do it.

Concerning awards, this year's winner of the Region 8 Outstanding Young Professional AG Award was Nigeria, a result of their continual good work and high-quality events. Croatia AG received the 2014 IEEE Young Professionals Hall of Fame Award.

This is the second year we open nominations for the Region 8 Young Professional Exceptional Volunteer Award. This award is intended to recognize an individual's outstanding contributions within the Region's young professionals. In 2013, there were three winners due to the impressive quality of applications: Khaled Mokhtar (Egypt), Tomislav Pokrajcic (Croatia) and Andreas Neumeier (Germany). Nominations must be endorsed by either a Section chair, another member of the Executive Committee or the Young Professionals AG chair.

The Region 8 YP subcommittee members also participated in the Section Congress held in Amsterdam. We reviewed our work until then and developed ideas and plans for the future. Based on the increased membership numbers with the 15-years policy, those sections without active Affinity Groups will be contacted as part of the Revitalization and Initialization Program, supported by webinars and useful lists of interesting speakers. The Event Exchange Program has also been restructured, with selected features to be implemented before the end of the year.

YP Subcomittee interview a potential new volunteer

Overall, we are pleased with the achievements we have made during 2014 and are deeply grateful to all the Young Professionals volunteers in Region 8 who have made it all possible. A huge thank you to all of you and warm congratulations to the Affinity Groups of Croatia and Nigeria!

Region 8 Young Professionals Subcommittee

Above: the Region 8 'Outstanding' award is presented to Nigeria's YP Affinity Group

Right: Croatia's YP Affinity Group picks up the YP Hall of Fame Award

Portugal's Young Professionals ease students into their first job

IEEE Young Professionals Portugal has launched a new project entitled 'Young Professionals Internships'.

With YPi, the YP Affinity Group in Portugal aims to create a strong link between companies and Student Branches by helping the integration of academic students into the industrial environment. This could give students an early contact with the labour market and enable companies to identify future employees.

Miguel Marques, chair of YP Portugal, explained: "In the current social-economics context, where the young unemployment rate keeps breaking new records every day, the secret to succeed is often to adopt a good strategy when applying to a new job. With this in mind, YPi is a great way for students and Young Professionals gain experience, have their first contact with the business world and interact with new technologies and paradigms".

YP Portugal will provide students and Young Professionals with many opportunities to engage with 'including programs', providing the means and tools to ensure students can better integrate into their first job.

According to the operations director of Critical Manufacturing, Teresa Carreiro: "This program is an excellent opportunity for students to complement the academic instruction, integrating them in real industrial environment and giving them the opportunity to cooperate directly with ambitious projects.

"For the company, the ability to cooperate with IEEE and the access to motivated Students and Young Professionals gives us a competitive advantage over traditional internship programs that we already had in the past".

About YP Portugal

IEEE Young Professionals is an international community of enthusiastic, dynamic and innovative members and volunteers. IEEE is committed to helping young professionals evaluate their career goals, polish their professional image, and create the building blocks of a lifelong and diverse professional network.

For more information, please visit our website **yp.ieee-pt.org** or send an email to **yp.portugal@ieee.org**

Leadership and concept app workshops trigger ideas at SYP

MORE than 300 volunteers experienced four days full of presentations, workshops and fun activities at the Students and Young Professionals Congress which took place in Krakow in August.

The Region 8 Young Professionals subcommittee was present and organized two workshops. The first was entitled 'IEEE Student Afterlife – Young Professionals: recognize your leadership gene', in which participants had a chance to share what they want from IEEE, learn how the various Young Professionals programs can meet their requests and discuss what exactly makes a good leader.

For the first activity, each participant was asked to write on a piece of paper three things they expect or need from the IEEE as part of their volunteering life, after which all the ideas were read out to everyone.

After about 20 minutes, we had gathered more than 60 unique ideas regarding what existing benefits motivate volunteers most, but also what can be improved in the near future. The main part of the workshop was an open discussion about what skills a successful leader should have, how the participants' views of which are the main leadership traits differ, and how young professionals can develop them.

The second workshop was more group-work oriented and was called 'IEEEApp – Concept development'. As the name suggests, after being divided into groups, participants had the better part of an hour to develop an idea for an IEEE mobile application, before presenting their concept to the other groups.

From event calendars and speakers database to networking and games, participants delivered truly impressive ideas. At the end of the workshop, two groups were voted as winners and received Young Professionals materials.

Overall, the visibility of Young Professionals at the SYP congress has increased in comparison to previous years, and the organized workshops sparked many interesting ideas on which volunteers, as well as the Region 8 Young Professionals Subcommittee, can act with fresh motivation.

We trust all members who participated in this year's SYP congress had an amazing time and we look forward to playing an even greater role in the next one. And remember, always network responsibly!

Flavia Dinca
Region 8 YP Subcommittee

IEEE Academic at SYP – two years on

STUDENTS and Young Professionals Congress (SYP) gave volunteers the opportunity to meet fellow volunteers, share their experiences and learn from the best practices and projects from other Student Branches in their Region.

During the education track of the old SBC held in July 2012 in Madrid, a presentation entitled 'Contributing for Education Innovation: The Fall of the Chalkboard' shared the results of a pilot project organized by the IEEE-IST Student Branch at the Technical University of Lisbon.

That pilot project – IEEE-IST Academic – was the seed of the current IEEE Academic, an international project promoted by volunteers of IEEE and a platform for students and professors to work together in putting multilingual educational resources online for free.

At SYP 2014 in Krakow, Rui Costa, the founder and coordinator of IEEE Academic, presented the project to attendees, showing that small activities done locally can scale up to become large IEEE-wide projects.

There was also a workshop about IEEE Academic Pre-University during which volunteers were able to learn the full workflow of developing an IEEE Academic targeting pre-university students.

Two years after that first presentation, IEEE Academic is being developed in 58 universities in 21 different sections from Regions 2, 8, 9 and 10. It is becoming living proof that the local efforts of Student Branches can help their communities – and other communities all over the world – by leveraging the unique network provided by IEEE.

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

Robotics workshop is aimed at young scouts

AAST Cairo Student Branch held a robotics workshop in the JOTA 56th (The Jamboree on the Air) & JOTI 17th (The Jamboree on the Internet) on air scouts camp at the Arab international scouts' center in Cairo, Egypt.

Sessions included basics of robots explained in a simple and easy way to reach the attendees of different ages and education. The workshop, which was very focused on bringing different knowledge together for the audience, had a great impact on the scouts, especially young kids in which they were very interactive with the workshop.

Ahmed Abd El Raouf
Mentor, AAST Cairo Student Branch

IEEE Academic Hellenic, Greece

IEEE Academic Hellenic is a gift to education

THANKS to the hard work of the dedicated volunteers of the IEEE T.E.I of Ionian Islands Student Branch, the IEEE Academic Hellenic has been launched this summer – and it is a great gift for the Greek educational system.

IEEE Academic Hellenic is growing fast since launch with more and more students and other individuals becoming part of this innovative educational program. Students and professors are working together to create educational material, giving everyone the opportunity to access it from everywhere for free.

Eleven new videos are now available in Greek, more videos and educational content will be uploaded soon. Find out more from http://academic.ieee.org/hl/contents

The IEEE Academic Hellenic Ambassadors
Stamatis Dragoumanos, Dora Fourou

The highlight event of 2014: Student and Young Professional Congress

THIS year's edition of our biggest student event in Region 8 – the Student and Young Professional Congress 2014 – was hosted in Krakow, Poland, from 6–10 August. To summarize SYP, we can say it was all about these three goals:

- Bringing IEEE students and young professionals closer to industry.
- Engaging students and young professionals and getting them excited about IEEE.
- Motivating students and young professionals to reach out and also get engaged in pre-university activities.

More than 300 Student Members and Young Professionals from 52 Sections attended the Congress. So did IEEE officials such as IEEE President Roberto de Marca, the three president-elect candidates and many other global volunteers and staff members. Special guests included representatives from industry and a group of high school students.

A great variety of interesting technical and non-technical workshops and plenary sessions provided great opportunities for interaction. A special event was the poster session in which Student Branches, IEEE societies and industry presented more thna 115 posters to exchange ideas and to learn from each other.

The multicultural evening was another successful event during the congress that highlighted the different cultures within Region 8: different colours, traditional costumes, delicacies and music from all over the Region, combined together with happiness, making it the event that everyone loved.

Let's hear what participants tell us about their experience:

"I was on top of the world when I was in Krakow with IEEEans enjoying the SYP events, the brilliant moments! R8 SAC <3"

Wadee Suleiman

"Words cannot describe how amazingly legendary this once-in-a-lifetime experience was :) !"

Giannis Mousmoutis

We would like to thank the Organizing Committee for delivering such a great Congress and for being a part of one of the best experiences in our lives. A big thank you to all the attendees that made this event so special.

See you again soon!

Your Region 8 Student Activities Committee,
Christian, Djordje, Elias, Femia, Pablo, Piotr and ***Youmna***

R8 STUDENT ACTIVITIES COMMITTEE

EMBS Student Chapter, Portugal

Boost for medicine and biology Chapter

IEEE-IST EMBS Student Chapter is the most recent technical sub-unit of IEEE-IST Student Branch, being the first student group of IEEE Engineering in Medicine and Biology Society established in Portugal.

This new Student Chapter was born out of the desire of a group of students with different engineering backgrounds, with common interest in applying engineering in medicine and biology. We are all passionate about the application of engineering principles to health and life sciences.

Over the next year, we will help our members to develop and strengthen their knowledge and ideas, giving them access to information, news, opinions and people that are shaping one of the fastest growing fields in science and technology. We will focus also in developing the participation on EMBS and IEEE community in Portugal and throughout the world.

We are filled with ideas and plans, focusing in a practical application of engineering in our field. We are already organizing some activities for the next months. Follow us at www.ieee-ist.org/embs.

Pedro Afonso
Chair, IEEE-IST EMBS Student Chapter

University of Sfax, Tunisia

Workshop on good presentation skills

IEEE Sfax Subsection organized a three-day Professional Activities workshop in collaboration with REGIM-Lab at University of Sfax, N-Training Center and Association of Sustainable Innovation in Tunisia in March 2014.

Of the 40 participants present at the first day, 20 participants qualified for the second, and only 12 for the third, the final day of the workshop. The selection was based on participants' motivation, a knowledge test and success of their presentations.

Following an introduction by Habib Kammoun on the benefits of Professional Activities, the workshop was mainly conducted by Nadhem Bardaa, director of the N-Training Center, beginning with a lecture entitled 'I love my work'. Two IEEE senior members participated as advisors.

The second day aimed to provide participants with techniques for planning, preparation and sequencing skills on how to make good oral presentations.

The final day was an opportunity for participants to improve their skills as trainers. They learned how to design a training session, present information, evaluate presentations and improve their individual and collective behaviors in and outside of the company.

The best five participants received the trainer certificate from the N-Training center.

Habib Kammoun, Sfax Subsection
habib.kammoun@ieee.org
Professional Activities: http://pa.ieeer8.org

TISP Workshop at SYP 2014

STUDENT and Young Professional Congress hosted a Teacher-in-Service-Program (TISP) workshop by Fabio Domingos and Ioannis Mousmoutis, Ad Hoc members of the IEEE Region 8 Pre-University Works Sub-Committee.

After a presentation of Pre-University Activities and TISP, a hands-on session was delivered, in which participants were divided into small groups and asked to build a tennis racquet using simple materials in 45 minutes. All the teams presented what they built and explained what they learnt during the activity.

A comparison between TISP and TISP 2.0 was given and guidance on how to organize a successful TISP workshop was demonstrated. The participants were highly motivated and we expect them to organize TISP workshops in their local areas soon.

IEEE R8 Pre-University Works Committee
r8puw@ieee.org

University of Birmingham, UK & Ireland

Birmingham to become one of the first 'activity hubs'

CHAIRS and representatives of more than 15 Student Branches gathered at the University of Birmingham on 12 September to share their student activity experiences. The inspiring key note speeches and lively atmosphere set the tone of the success of this event.

To begin with, Costas Constantinou gave an introduction of the hosting university and sincerely welcomed all attendees. Located in the heart of the British power industry, the university has always been an active participant in the IEEE community and is now dedicated to contribute more – that is, becoming one of the first 'activity hubs' in UK & Ireland section. The Student Activities Chair encouraged Student Branch chairs to take part in the pilot program and assist in assessing the long-term viability.

Xin Yao of the university's Computer Science department and president of IEEE's Computational Intelligence Society (CIS) was invited to the afternoon session and gave a speech about his current research topic and the overview of CIS community. Xiao-Ping Zhang seized this opportunity and gave a talk about 'Global Power Internet', as enlightening as many other brilliant speeches he has given in the past student branch activities.

Throughout the meeting, Student Branch chairs and representatives took turns to report their work in branch activities. It was convincing that the idea of collaboration between Student Branches has taken root in attendees. So instead of a scattered, disconnected organization, a more united Student Branch group is forming in UK & Ireland Section. The emerging 'activity hubs', without doubt, will provide more opportunities and aid in the bloom of IEEE student community.

Later in the afternoon session, Flavia Dinca from the University of Southampton gave an introduction to IEEE Young Professional Program. Teresa Schofield, past WIE chair, spoke about the Women in Engineering Affinity Group.

Hao Fu

Student Branches Austria Section

Student Branches join forces with YoungOVEs

THE Student Branches in the Austria Section and Austrian YoungOVEs met for a half-day workshop to discuss possibilities to strengthen the cooperation between the IEEE SBs and to extend it to include the YoungOVE, a comparable organization located in Austria.

Hosted by the Lakeside Labs on 18 June, nine representatives from almost all Austrian IEEE SBs and YoungOVEs followed the invitation of the Austria Section Student Branch Coordinator and discussed potential topics suitable for cooperation.

The IEEE SBs agreed to cooperate on the yearly organized Region 8 Student Paper Contest to increase participation and ease finding sponsors. A joint three-day excursion will also be organised, benefiting from the diversity of experiences, contacts and fields of expertise of the individual institutions.

Cooperation allows increasing efficiency by having each institution contribute according to its experiences and capabilities. It was also found that the institutions have backgrounds in different research fields. Having each institution suggest companies allows their members to broaden their horizon by visiting companies they would not have thought of otherwise. Regular meetings are scheduled not to lose focus of the cooperation.

Torsten Andre
Austria Section Student Branch coordinator
www.ieee-austria.org

Med Jamoussi and Sfax Faculty of Medicine, Tunisia

Tunisian Engineering Days pulls in 600 over the summer break

DURING three days from 31 July to 2 August, about 600 engineering students from different engineering schools in Tunisia participated in the 4th Tunisian Engineering Days in Sfax. The event was organized by the North American Tunisian Engineers Group (NATEG) in partnership with the IEEE Sfax subsection.

The summer camp brought together engineering and science students, faculty members, business leaders and experts from Tunisia, USA and Canada. This year's edition aimed to trigger discussions around engineering profession provision to common life, under the theme of "Succeeding in Engineering".

The program featured three keynote speakers: Josue Molina E (regional manager EMEA at ComputaMaps), Matthew Mengerink (chief technology officer for eBay's X.commerce and Magento divisions) and Joe Baeumel (president at Mobility Angler).

Twelve breakout sessions included professional and technical talks. In the professional sessions, senior speakers spoke about the importance role of leadership in engineering, job opportunities for engineers, leadership development, communication techniques, cooperative problem solving, and job interviews.

Four success stories were presented by renowned Tunisian engineers working in North America and 10 workshops were presented by students, including a TISP workshop, a roundtable discussion and social activities.

An IEEE booth was organized by the IEEE Sfax Subsection to promote student membership.

Habib Kammoun (PA SC member) and *Adel Alimi* (Sfax Subsection chair)
http://days.nateg.org

Ajman University of Science & Technology, UAE

AUST has become a success story in its own right – here's the proof

IEEE AUST Student Branch has proved to be one of the best IEEE Student Branches in UAE. For five consecutive years, AUST has won the most awards during IEEE UAE Student Day, a National-Level Engineering Competition whose ninth edition was successfully hosted this year by AUST. During 2010–2013, the branch collected 25 awards, with another seven added to this sum in 2014.

One of the highlights of 2014 was when AUST students topped the Innovation Category in Microsoft Imagine Cup 2014 and represented UAE in Pan-Arab Semi-Finals. In competitions that saw participants from all over UAE, the AUST students have won two awards in INNOVATOR 2014, five awards in Undergraduate Research Conference (URC) 2014 and also won prizes in the Engineering Ethics Competition.

Simultaneously, the Women in Engineering Affinity Group at AUST plays an active role towards the success of the Branch. In its first participation on an international level, the WIE team grabbed first position in the IEEE Day Photo Contest 2013.

The keys to the success of AUST students are hard work, unity, motivation, dedication and determination, along with the continued support, encouragement and constant guidance from the faculty members of the Engineering Department.

The Student Branch members of AUST extend a warm thank you to our Branch counselor Mustahsan Mir, WIE counselor Tazeen Sharif and our dean Fahar Hayati for their kind support and encouragement.

Saadia Shoaib
Event organiser, AUST IEEE Student Branch