

Record attendance in Sydney sparks fresh ideas at Sections Congress

IEEE'S biggest leadership gathering, IEEE Sections Congress, was held at the International Convention Centre in Sydney, Australia on 11–13 August 2017. This triennial event followed the Region 8 Committee Meeting held at the same venue two days earlier.

Sections Congress gathered a record number of attendees with more than 1,200 of them from 165 countries. As many as 200 speakers and 50 exhibitors took part. Five different tracks provided more than enough opportunities for delegates to gain information and training skills. Participants had a great opportunity to network and build relationships with other volunteers within IEEE.

One of the most important aspects of Sections Congress is making recommendations to shape the future and goals of IEEE. All IEEE Regions can make proposals and then the top three are announced on the last day. The final recommendations this time were:

Develop an incentive program for corporations to join IEEE as 'Corporate Member'.

Develop (or expand existing) training programs and/or create partnerships with external organizations to allow members to provide STEM activities to pre-college students. Provide 'canned' or 'in a box' style demonstrations and presentations that local Sections can deliver to pre-college students. Re-evaluate a 'Junior IEEE' membership program targeted at pre-college students.

Strengthen and recognize Industry/Academia/Government Collaboration/Partnerships. In order to achieve this, the following is recommended:

- Create a Section Award for Industry/
- Academia/Volunteer collaboration

 Organize multidisciplinary Industry/ Academia/Government events focused on 'hot' issues

Develop a public communications platform to develop projects and share results
Create a 'dating' platform to communicate industry issues, searching for solutions and possible applications of research results.

While Section Congress shapes the future of the whole of IEEE, the Region 8 Committee Meeting focuses on the future of IEEE within Europe, Middle East and Africa.

... continued on page 3 🕨



Above: Region 8 Committee Meeting attendees. Below: Sections Congress in full swing.







YP news.....8–9 Student news......9–12



Brains, robots, AI... and loads of kids: IEEE Members' Open Day in London

on page 3

UNITED Kingdom and Ireland Section held its first Members' Open Day (MOD) on 7 October 2017, hosted at the University of Westminster. The event attracted IEEE members and non-members alike, not to mention large numbers of school pupils, teachers and parents keen to participate in the various STEM activities taking place.

After a welcome by Section chair Ali Hessami, MOD kicked off with a keynote lecture by Prof Steve Furber of the University of Manchester, who spoke about his SpiNNaker project to model a neural network using one million ARM chip cores. Steve is famous for having been one of the Acorn RISC Machine chipset's original designers while an employee of Acorn Computers back in the 1980s. As part of her talk entitled 'Trust

me, I'm an Engineer', Prof Merlyne

DeSouza, UK&I Section's STEM officer, introduced the STEM workshops that ran throughout the afternoon. These were attended by a great many youngsters and parents from a number of schools, invited by the Section through the University of Westminster's Outreach team.

MOD's Robotics for Humanity competition was introduced by Prof John Gray and Dr Mary He, chair and the secretary respectively of the Robotics

Metamorphic Walker crawls into the robotics competition



Your (almost) new editors: Alistair Dabbs and Bojan Nikolic.

We went offline for a bit but we're here again now

WELCOME back and thanks for hanging in there. It's been a while since our last issue of IEEE Region 8 News but circumstances contrived to make it impossible to produce further issues before the end of 2017 as we had intended. Such are the challenges of volunteering.

Now that we have returned in time to shrug off the cold of winter and look ahead to spring, the issue in your hands should bring matters up to date. Despite our tardiness, many of you have faithfully continued to send us news and articles about the events, conferences, workshops, open days, training sessions and other member-initiated projects you have been attending and organizing - for which we are extremely grateful. These pages attempt to include as many of these outstanding stories as possible.

With our quarterly publishing

cycle back on track, IEEE Region 8 News now also puts a gently reorganized editorial team at your service for 2018. Bojan Nikolic has been joined in the editor's chair (don't worry, it's a big chair) by exproduction supremo Alistair Dabbs whose professional background in IT journalism and publishing technology opens up interesting possibilities for the newsletter's future.

If you organize IEEE member events or direct IEEE projects within Region 8, no doubt you will be hearing from one or either of us soon enough - if you haven't already. Our readers are interested in your news.

Finally, our very fond appreciation goes out to the previous editors Zhijia Huang and Roland Saam for their unrelenting hard work, irrepressible humour and exceptional professionalism. Thanks, guys!

Alistair and Bojan

HISTELCON to return in 2019 after Japan detour

REGION 8 Committee has given its approval for IEEE HISTELCON, the Region's flagship conference on engineering history, to take place next year in United Kingdom and Ireland Section.

Held every two years, IEEE HISTELCON (History of Electrotechnology Conference) was hosted most recently in Kobe, Japan in August 2017. Taking a Region 8 conference to Region 10 on this occasion reflects the growing worldwide interest in the origins and historical development of technical discoveries within IEEE's fields of interest. The event was cosponsored by all nine IEEE Sections in Japan, along with technical cosponsorship by Region 8.

During the course of the two-day conference, 31 papers were presented along with an

2 IEEE Region 8 News March 2018

exhibition of Japan's 23 IEEE Historic Milestones. A list of these can be read at: www.ieee-jp.org/ section/kansai/histelcon2017/ program/technical/image/ exhibition list all-2.pdf

HISTELCON 2019 has been proposed to take place at Strathclyde University, Glasgow, Scotland in August or early September 2019. The proposed primary theme is 'historic computers', and the conference will include a mix of invited keynote lectures alongside submitted and reviewed papers.

As usual, IEEE members and Student members will benefit from reduced registration fees, as will members of co-sponsoring organizations.

We will keep you up to date on HISTELCON 2019 as details are confirmed.

region8news

IEEE Region 8 News is published quarterly by the Region 8 Committee of the IEEE, and distributed free with IEEE Spectrum to more than 70,000 IEEE members. This edition and back issues can be read online and downloaded from the Region 8 website. Opinions expressed in IEEE Region 8 News are the authors' own and do not necessarily represent the policies of their employers or IEEE Board or Region 8 Committee.

IEEE Region 8 website ieeer8.org

IEEE Region 8 News download page r8news.ieeer8.org

Send us your news and articles r8news@ieee.org

Editors Alistair Dabbs a.dabbs@ieee.org Bojan Nikolic bnikolic@ieee.org

Printing & mailing

Theresa Smith tlsmith@ieee.org



Operating Committee (OpCom)

Director Margaretha Eriksson (Sweden) director@ieeer8.org Director-elect

Magdalena Salazar Palma (Spain) director.elect@ieeer8.org Past-director

Costas Stasopoulos (Cyprus) past.director@ieeer8.org

Secretary Jan Verveckken (Benelux) secretary@ieeer8.org

Treasurer Ralph Kennel (Germany) treasurer@ieeer8.org

Vice-chair Member Activities Antonio Lugue (Spain) vc.member.activities

@ieeer8.org Vice-chair, Student Activities Efthymia Arvaniti (Austria) vc.student.activities @ieeer8.org Vice-chair, Technical Activities Christopher James (UK and Ireland)

vc.technical.activities @ieeer8.org



Delivery problems?

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.

Vol 21 No 1 March 2018

Extra copies?

If you would like extra copies of IEEE Region 8 News for distribution at your IEEE events, please email a request to r8news@ieee.org before the deadlines below, specifying quantity and delivery address. Please type 'R8 News Extra Copies' in your email subject line.

Submitting articles

We welcome news, event reports, articles and letters from any member of IEEE. You can email these to the editor at r8news@ieee.org, either putting your text directly in the body of the email or in an attached document, as you wish. We gratefully accept any photos or graphics accompanying your articles but please make sure they are undoctored high-resolution image files. You can read our full guide to writing and submitting articles at https://goo.gl/hiiTpj

Deadlines for upcoming issues

June 2018 issue	deadline: 15 April 2018
September 2018 issue	deadline: 15 July 2018

REGION 8 OPERATING COMMITTEE OFFICERS 2017-2018

Professional Activities

Jan Haase (Germany) professional.activities.officer

eieeer8.org

Region 8 News

Appointed Members

Awards & Recoanition Costas Stasopoulos (Cyprus) awards.and.recognition.officer @ieeer8.org Chapters

Amara Amara (France) chapters.officer@ieeer8.org Conferences

Péter Nagy (Hungary) conferences.officer@ieeer8.org

Educational Activities Sohaib Qamar Sheikh (UK and Ireland) educational.activities.officer

@ieeer8.org Action for Industry

Marios Antoniou (Cyprus) action.for.industry.officer @ieeer8.org

Membership Development Andrejs Romanovs (Latvia) membership.develop nent.officer @ieeer8.org

Ad-hoc Members

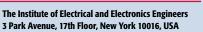
Electronic Communications George Michael (Cyprus) electronic.com @ieeer8.org

Assistant Secretary, Social Media and Web pages Dora Fourou (Greece) assistant.secretary@ieeer8.org

History Activities Tony Davies (UK & Ireland)

history.activities.officer @ieeer8.org

Life Members Charles Turner (UK & Ireland) life.members.officer@ieeer8.org



IFFF prohibits discrimination in its activities For more information, visit www.ieee.org/web/aboutus/ whatis/policies/p9-26.html

(UK & Ireland) r8news@ieeer8.org Sections Congress Coordinator Marko Delimar (Croatia)

sections.congress.coordinator @ieeer8.org Standards Coordinator

Alistair Dabbs and Bojan Nikolic

David Law (UK & Ireland) standards coordinator @ieeer8.org

Student Representative Ines Inacio (Benelux) student.representative @ieeer8.org

Young Professionals Sara Barros (Benelux) young.professionals.officer @ieeer8.org

Women in Engineering Youmna El-Bitar (Lebanon) women.in.engineering.officer @ieeer8.org

Region Vitality Coordinator Aleksandar Szabo (Croatia) region.vitality.coordinator @ieeer8.org

Voluntary Contribution Fund Andreas Koltes (Germany) voluntary.contribution.fund. officer@ieeer8.org

Africa Area Chair Gloria Chukwudebe (Nigeria) africa.area.chair@ieeer8.org

region news

Record attendance in Sydney sparks fresh ideas at Sections Congress

▶ continued from page 1...

This was best seen in presentations and a debate of the two candidates for the role of Region 8 Director-elect 2019-2020: Antonio Luque (Spain) and Rafal Sliz (Finland). Region 8 vice-chairs for 2018 were also chosen during the meeting, attendees opting to reelect the existing incumbents: Antonio Lugue (Member Activities), Efthymia 'Femia' Arvaniti (Student Activities) and Christopher James (Technical Activities).

The host cities of the next Region 8 Committee Meeting and SYP Congress were announced. The Greek capital, Athens, will host Committee members and Section Chairs in March 2018.

while the second largest city in Portugal, Oporto, will host Student Members and Young Professionals across the Region at the end of July.



For the first time, the Meeting welcomed a representative of the newly formed IEEE European Technology Centre in Vienna, Austria: senior director for European Business Operations, Clara Neppel. Under her leadership, the Centre should advance IEEE's position as a global organization, facilitate global relations, expand IEEE's activities with stakeholders as well as increase presence of members and volunteers within IEEE. Region 8 leaders will collaborate with Clara to shape her role as well as the services to be provided.

Reports and presentations from Sections Congress can be found at: http://sectionscongress.ieee.org

Reports from Region 8 Committee are at: www.ieeer8. org/category/committee/ meetings/2017-august-sydney/ Bojan Nikoli





Above: Sections Congress begins! Below: IEEE.tv in action. Below left: Region 8 Committee Meeting in session.





Right: One of the hugely popular STEM workshops. Below, from left: Ansgar Koene, Ali Hessami, Mike Hinchey and Keeley Crockett





▶ continued from page 1...

UK&I's first IEEE Members'

and Automation Chapter. The finals, held in the afternoon, pitted six entries against each other with presentations, a poster session and live demonstrations. The winner was Metamorphic Walker by Shuangjia Xu, Cheng Peng and Zhao Tang of King's College London and Tianjin University, China.

The afternoon's events also featured a panel discussion on Ethics in Technology between Dr Keeley Crockett, Prof Mike Hinchey and Ali Hessami, chaired by Ansgar Koene, and musical entertainment by Dr Peyman Heydarian and accompanying musicians. A BBC TV documentary on dust storms as a consequence of climate change was screened, presented by its scientific advisor, IEEE member Hamid Pouran, and its producer Neil Cameron.

MOD was also an opportunity for IEEE Chapters, Societies and Affinity Groups to engage with attendees, from all-day exhibition stands and talks in the lecture room.

Updates were given by the Section's Educational Affairs officer, Zeyad Al-Shibaanyon,



on education and professional development initiatives. Section leaders for Student Activities (Veronika Nesheva and Lee Crudgington), Young Professionals (Noel Gomes) and Women in Engineering (Keeley Crockett and Princy Johnston) gave an overview of their roles, plans, existing initiatives and achievements in developing services for members. Brian Harrington, vice-chair for the Section's Professional Registration Committee, spoke on the significance of professional registration, recognition and certification as a key member value.

Warm thanks go to the University of Westminster for its active and generous support in hosting the event, plus the superhuman efforts of Prof Izzet Kale and his team. Dr Sevket Cetinsel and Paul Hampson.

Alistair Dabbs

Building an action plan to bring more members into IEEE

HELD in Bratislava, Slovakia on 19–20 May, last year's Membership Development workshop was very well attended with 24 participants from 20 countries within the Region 8. Post-event feedback suggested an extremely positive outcome.

The first day's sessions covered a basic introduction to Region 8 and Membership Development, with the host Section presentation. Later, the team was guided to a beautiful city tour followed by an exquisite networking dinner.

The second day was filled with MDfocused presentations, interactive sessions and brainstorming sessions. Everyone participated to the fullest and managed to learn from each other. Towards the end, a comprehensive joint action plan was generated which all the MD organizers agreed to take to their respective Sections and implement according to their

Blockchain

own needs and customized requirements.

It was an amazing and a successful event that will go a long way in ensuring enhanced membership with the Region. Many thanks to all attendees and congratulations to Czechoslovakia Section, led by Matej Pacha, for achieving a great job hosting the workshop. Further workshops will be planned in 2018, so please consider the opportunity to join us next time.



Above: Getting down to business inside the workshop.



Want to learn the basics of blockchain tech?

WIN this book in our FREE PRIZE DRAW!

JUST a year ago, the financial markets saw Bitcoin prices overtaking gold for the first time, reaching a value of \$1,290 per unit. Prices continued to rise at an incredible rate through the course of the year, by mid-December approaching \$20,000.

Its value plunged sharply just before the New Year to settle at just over half that figure but that still means Bitcoins bought at the beginning of 2017 were worth ten times as much 12 months later. No wonder so many people are fascinated by cryptocurrencies at the moment.

But the technology that makes it work isn't just for the financial and retail sectors: blockchains are increasingly being used for everything from container shipping and energy supply to tracking provenance for legal ownership and automatically compiling data from environmental sensors.

Get up to speed with the basic technology behind it all and see how you might tap into its power yourself with the help of this easy-to-read blockchain primer. *Blockchain* for Dummies explains the fundamentals and helps you set up your own Bitcoin wallet and get started with Ethereum, Ripple and various other public, private and permissioned systems.

Best of all, here at *IEEE Region 8 News* we are giving away a copy of this book to one lucky reader. To enter, send us an email at **r8news@ieee.org** using the subject line *Blockchain for Dummies*, giving just your name and IEEE Section.

We'll gather the entries and use a randomizer to pick one on **15 April**. If you are the lucky winner, we will contact you directly to request your postal address so we can send you the prize.

It costs nothing to enter – just a quick email – so why not give it a try?

Engage with other IEEE members interested in this technology by joining the Blockchain community on IEEE Collabratec: https://ieee-collabratec.ieee.org/app/ community/102/Blockchain/activities

RULES: This is a free prize draw. No purchase is necessary. Names and email addresses of entrants will be stored securely for the purpose of this prize draw only and removed from our system as soon as the prize has been accepted by the winner. Contact details will not be used for any other purpose or shared within IEEE or with any other organization.

OpCom decisions taken in Dubai

REGION 8's Operating Committee (OpCom) convened in Dubai on 10-11 November last year.

It was reported that the first African Student and Young Professionals (SYP) Congress took place in Abuja, Nigeria in September *(see page 9 in this issue)*, with Martin Bastiaans in attendance to represent the Region. We understood an East Africa SYP was planned in Uganda for 23–24 November but had received very little additional information.

The next Region-wide SYP Congress was set for 24-29 July, to be held in Porto, Portugal.

A proposal was made to create a Region 8 magazine containing technical content. OpCom agreed to form a committee to define its content and format, with consideration for the Region's overall communication strategy incorporating *IEEE Region 8 News*.

After running as an ad hoc committee for some years, Humanitarian Activities has been granted Standing Committee status, with Ruba Abu-alrub as chair for 2018. Improving collaboration with EPICS was targeted, as was further assistance for SIGHT groups which, despite success in their creation, often don't know how to start the real work.

The Committee heard a proposal for a new Far East Subsection in Russia.

Dates and venues were set for the next round of meetings. After Region 8 Committee on 9–10 March in Athens, Greece, OpCom will convene in Limassol, Cyprus on 2-3 June, followed by the autumn Region 8 Meeting R8 meeting, probably in Belgrade, Serbia, in early October.



3-7 June 2018

'Towards Self-healing, Resilient and Green Electric Power and Energy Systems.'

ENERGYCON 2018 will be the fifth IEEE International Energy Conference, organized by IEEE Cypress Section and the KIOS Research and Innovation Center of Excellence of the University of Cyprus, in partnership with IEEE Region 8.

energycon2018.org

section news

region news

LIFE MEMBERS Why not give retiring members a reason to stay?

THE future development of Life Member activities in IEEE has been under active consideration throughout 2017. There is some dissatisfaction about their general lack of vitality in all 10 Regions: the need for reform has become imperative.

New proposals have been put forward by a special IEEE Task Force to address this problem. Its main recommendation proposes that all older members would be placed on a par with Life Members. The 'older' members considered here typically include both retired members and those approaching retirement. Another way of labelling this group is as 'long-serving' members, such as those with 30 years or more of membership in IEEE.

In the case of Region 8, for example, this could mean that in addition to the roughly 3,000 existing Life Members, perhaps another several thousand would be included, which would help to re-energize the Life Member Affinity Groups (LMAGs). There are 13 LMAGs in the Region, with the recent addition of the Lebanon LMAG. But even in the Sections with LMAGs, because of geographical spread across the Section, it is often difficult to organize viable events and meetings. Increasing the number of active 'older' members in each LMAG would make possible more attractive events and meeting to be organized.

It would also enable collaborative ventures with other IEEE (and non-IEEE) groups to be organized. In recent years IEEE policy has been aimed at engaging more effectively with the outside world. It has developed programs that are designed to support communities internationally, such as EPICS (Engineering Projects in Community Service), SIGHT programs (Special Interest Groups on Humanitarian Technology) and HAC (Humanitarian Activities) projects. IEEE members of all ages have volunteered their practical skills and expertise to run projects serving specific local needs in the fields of energy supplies, communications and the Internet. There are some excellent opportunities for Life Members to participate in these programs.

Victor Fouad Hanna (France Section), the 2018 Region 8 Life Member Coordinator, and I have been working together in the IEEE Life Member Committee (LMC) on proposals to re-energize the existing LMAGs and to encourage the creation of new LMAGs in Sections with significant numbers of Life members. All LMAGs are being asked to publicize their presence and activities on their Section websites, to inform older members of the benefits on offer, and to include contact details of their officers.

> Charles Turner 2017 Region 8 Life Member Coordinator c.turner@ieee.org





Former Region 8 Director Jean Lebel is guest of honour for Swiss IEEE Day

CELEBRATIONS for IEEE Day 2017 were held by Switzerland Section at the Swiss Federal Institute of Technology in Lausanne (École Polytechnique Fédérale de Lausanne or EPFL) on 2 October with 30 guests in attendance. The event recognized the date in 1884 on which leading engineers and inventors of the era first gathered to share ideas and inspiration, and formed the IEEE.

The main venue was Adrien Palaz Auditorium located in MED and whose completion was supported by a philanthropic gift to the EPFL from former Region 8 Director Jean Lebel in honour of his grandfather, the EPFL's spiritual father.

Following opening remarks from Switzerland Section chair Maria-Alexandra Paun, the keynote talk was delivered by Martin Vetterli, president of EPFL and an IEEE Fellow. Mr Vetterli acknowledged the role of IEEE through his career and emphasized the importance of IEEE magazines in keeping members up to date with developments in their chosen fields. He praised the initiatives that brought people together who would not otherwise have met. He concluded his talk by giving appreciation to Jean Lebel as our guest of honour.

At the inauguration of the auditorium, three actions were agreed upon:

Persuade the bank to keep the Wallis hydraulic electricity plant of Alpiq under Swiss flag control. (So far so good: Alpiq is going to keep it.)

Organize future annual IEEE Days in the auditorium.

Publically unveil the "cuvée Adrien Palaz".

Mr Vetterli was presented with a bottle of the above and more was served to attendees later at the closing drinks reception. Mr Lebel presented the EPFL Student Branch and Mr Vetterli with biographies of Adrien Palaz.

The morning session comprised a series of seminars on life and career testimonials by women engineers and scientists. The afternoon included a talk entitled 'Personality and legacy of Prof Erna Hamburger in Lausanne' given by Solange Ghernaouti. After contributions from Sabine Suesstrunk and Kristin Becker, this led to a panel discussion on the leaky pipeline of women from PhD studies toward professorship. A networking drinks reception concluded the event.

Mathieu Coustans Chair, EPFL Student Branch

First IEEE Milestone of 2018 to celebrate the birth of flat panel displays in Dundee

IEEE'S Historic Milestones program honours historically significant achievements in technical fields all around the world with distinctive bronze plaques installed at each site. More than 40 of these have already been dedicated within Region 8 and the numbers continue to rise.

The first Milestone to be unveiled within the Region in 2018 will celebrate the research into amorphous silicon TFT switches by Walter Spear and Peter LeComber in Dundee, Scotland (United Kingdom and Ireland Section). Their work during the late 1970s and early 1980s led to the development of flat panel displays, now at the heart of modern televisions and computer screens.

The dedication event will take place on 5 April at the Physics Department of Dundee University, followed by an afternoon symposium. You will be able to read a full report in our next issue.

Other Milestones installed by Sections in Region 8 over the course of last year have included those honouring:

 First publication demonstration of television, 1926 (UK & Ireland)
Gotland high voltage direct current link, 1954 (Germany)

Zenit parabolic reflector L-band pulsed radar, 1938 (Ukraine)

 Object-oriented programming, 1961 (Norway)

First exploration and proof of liquid crystals, 1889 (Germany)

Submissions for further Milestones in Region 8 currently going through the approval process include those for Antonio Pacinotti's dynamo with slotted ring armature (Italy), Jan Czochralski's process for growing single crystals for semiconductors (Poland and Germany), and the birth of Wi-Fi (Benelux).



Main photo: Frank Goddard of NASA talks life sciences on the big screen while Ali Hessami acts as master of ceremonies. Left, from top: Fellow Christmas lecturers Hamid Pouran, Neil Cameron and Kawal Rhode.

NASA life scientist delivers keynote at inaugural 'Christmas Lecture'

IN the tradition of the Royal Institution Christmas Lectures, instigated back in 1825 by Michael Faraday himself, United Kingdom and Ireland Section held its own inaugural Christmas Lecture in London on 8 December 2017. The venue was the classic-era Regent Street Cinema, now part of the University of Westminster but in 1896 the site of the Lumière Brothers' first public showing of moving pictures to a paying audience in Britain.

Already full of seasonal mince pies – a seemingly inexhaustible supply was available in the foyer to guests upon arrival – nearly 100 attendees made their way into the main auditorium for an afternoon of accessible, public-friendly talks on scientific topics. Prof Izzet Kale of the University and Section chair Ali Hessami introduced the event.

The opening keynote lecture was delivered by Dr Francis Lindsay from NASA's Goddard Space Flight Centre, who spoke via videoconference on the giant projection screen about NASA's remote sensing technologies and life sciences programs. Despite not being able to attend in person, Dr Lindsay interacted remarkably well with the audience and even fielded questions at the conclusion.

Continuing the theme of mapping weather patterns, the keynote was followed by a fresh showing of the BBC TV documentary *Dust Storm*, previously presented at the Section's Members' Open Day in October. The film's scientific advisor IEEE member Hamid Pouran and its producer Neil Cameron were on hand yet again to introduce and explain the background behind the documentary, which focused on efforts to predict dust storms in the Middle East through satellite tracking.

Prof Kawal Rhode of King's College London gave the closing lecture, investigating how emerging robotics and imaging technologies are being used in real-world medical treatment. This was followed by a networking reception back in the foyer.

The University recorded the entire two hours of lectures on video and has made it freely available to everyone to watch at leisure at https://goo.gl/TKTcxm – although bear in mind you will have to supply your own mince pies...

Alistair Dabbs



TSP celebrates its 40th anniversary in Barcelona

THE 40th anniversary of the International Conference on Telecommunications and Signal Processing (TSP) was celebrated in Barcelona, Spain on 5–7 July last year. Under the patronage of Region 8, Spain Section, Czechoslovakia Section and SP/CAS/COM Joint Chapter, and Croatia Section Communications Chapter, the conference was organized by 16 universities from Europe and Asia for academics and researchers.

The event serves as a premier annual international forum to promote the exchange of the latest advances in telecommunication technology and signal processing. In line with this mission statement, TSP 2017 provided a great opportunity for more than 185 researchers from 40 countries across six continents to demonstrate their exciting achievements in their fast-evolving fields of research.

During the three-day event, the technical program included plenary speeches by four world-renowned keynote speakers: Prof Alejandro Frangi (University of Sheffield, UK), Prof Schahram Dustdar (TU Wien, Austria), Prof Mérouane Debbah (CentraleSupélec, France) and Prof J A Tenreiro Machado (Polytechnic of Porto, Portugal).

Some 180 papers were presented in 30 oral sessions. Three workshops and three special featured sessions provided participants with a great opportunity to meet prominent representatives of emerging scientific disciplines of telecommunications and signal processing.

In co-operation with Czechoslovakia Section SP/ CAS/COM Joint Chapter, the authors of the best three student papers were presented with awards during the conference gala dinner by the Technical Committee. The overall winner was given a plaque to mark the achievement, along with free IEEE Student Membership for 2018.

The next TSP will take place in Athens, Greece on 4–6 July 2018. For more information please visit http:// tsp.vutbr.cz

Norbert Herencsar

TSP general co-chair and Czechoslovakia Section SP/CAS/COM Joint Chapter chair

Skoric takes amateur radio comms lecture on tour

MIROSLAV Skoric of Austria Section organized and participated in several educational activity events in Poland and Uzbekistan during 2017.

The first was a tutorial session at the 24th International Conference on Computer Networks (CN2017), held in Zamek na Skale in the south-west of Poland. Mr Skoric provided a half-day lecture on amateur radio communications and introduced various electronic devices to the audience. In Rzeszow he gave a seminar for students and teachers at Politechnika Rzeszówska (Rzeszów University of Technology).



The tour finished in Krakow with an informal discussion with local technology enthusiasts. The whole program confirmed expectations that amateur radio in Poland is alive and well.

Visiting Tashkent, Uzbekistan for 10 days, Mr Skoric delivered a half-day tutorial session at the IEEE/IFIP International Conference on Information Science and Communications Technologies (ICISCT 2017), followed by a keynote during the conference opening, and finishing with a four-day radio training course for students and teachers at TUIT (Tashkent University of Information Technologies).

There will be opportunities to give more tutorials and workshop sessions on these topics in future. Prospective amateur radio instructors from Region 8 and beyond should contact Mr Skoric at **skoric@ieee.org** for help coordinating new activities. THE 24th edition of the International Conference on Computer Networks took place last June in Stonemout Castle located in the heart of the Klodzko Valley, Poland.

More than 70 scientists, researchers, students and practitioners gathered from many countries to share their experiences and discuss problems associated with widely understood computer networks, teleinformatics and telecommunications, new technologies, queuing theory, innovative applications and distributed computer systems.

Four keynote lectures were delivered on change detection and mining unstructured data, blockchains, time-spatial population mobility retrieval and network models of biological structures. More than 60 regular papers were presented.

Conference participants were also able to get together socially over a gala dinner, barbecue, volleyball and boules, as well as an organized outing. This year the trip was to Klodzko Fortress, a unique fortifica-

Network models of biological structures and blockchain keynotes feature at CN2017



tion complex best known for its extensive network of underground tunnels.

The next edition of the conference is planned for June 2018, returning to its origins at the Silesian University of Technology in Gliwice, Poland. Proceedings from all the conferences since 2009 are indexed in ISI (Web of Science). They will also be indexed by DBLP, EI, Scopus and Inspec.

For more details about CN2018, visit the website at cn.polsl.pl



From ministries to humanitarian programs: Iraq builds relationships

IRAQ Section has been actively engaged in organizing engineering events throughout the past year and more, managing and technicalsponsoring eight international conferences at different Iraqi universities. This has been extremely challenging against a backdrop of the severe security environment in Iraqi cities at the moment.

A further 12 workshops were organized during 2017, for which the Section was able to build excellent scientific relationships with three Iraqi Ministries: Oil, Electricity and Communication. A further three university workshops were held specifically to support student activities.

These events were designed to help share knowledge, of course, but also to spread the word about the role of IEEE in our professional life and our future, also promoting engagement between academia and those working in industry.

Through its industrial ambassador, Prof Sattar B Sadkhn, Iraq Section organized a workshop at the Ministry of Oil. The workshop's main aim was to enhance the relationship between Iraqi IEEE members and the Ministry, encouraging the latter to co-operate with the Section in its many activities planned within its scientific fields of interest.

One of these activities was the holding

of the 2017 International Conference on Environmental Impacts of the Oil and Gas Industries: Kurdistan Region of Iraq as a Case Study (EIOGI). A further key international conference is planned for 2018 at Al-Karkh Science University, on the topic of the oil and gas industries in Iraq.

Since 2014, the Section has been involved a humanitarian-social program to assist students from displaced families. Guided by Prof Sadkhan, social activities have been organized in a number of Iraqi cities, including Erbil, Kirkuk, Baghdad, Babylon, Karbala, Najef and Wasit.

One of the institutions that was partly set up to welcome these students is Al-Azdy Primary School in Babylon. Every two months, volunteers from Iraq Section visit the school to spend a whole day with the students, lifting their spirits and helping give them direction for the future.



Setting goals and increasing activity pay off for Italy

REGION 8 has commended Italy Section for two years in a row to recognize the great teamwork by its volunteers. At the end of 2017, it won the award for Outstanding Section Membership Recruitment Performance. Earlier in March, it was given the Outstanding Section Award for 2016.

These achievements were the result of Italy Section reinforcing some critical goals and substantially increasing its activity.

The International Forum on Research and Technologies for Society and Industry (RTSI), for example, has enjoyed increased success since launching



in 2015. This flagship event is organized completely by the Italy Section. RTSI 2016 saw the first meeting of the Section's Industry Relation Committee with several companies, with the

Section chair Tiziana Tambosso with past chair Ermanno Cardelli.

participation of a Region 8 representative and more than 20 different industries contributing to the discussion. In addition to visits and meetings, the committee, with the contribution of Chapter chairs and other volunteers, continues to strengthen relationships with industry through participation in the Region 8 Mentor and Internship Programs.

The activities of the Student Branches were reinforced in 2016 with the establishment of a new Student Branch and of two Student Branch Chapters. RTSI was also the occasion for an important Young Professionals event focusing on innovative prototype implementations, systems and technologies. Young …continued on next page ►

section news

▶ continued from page 7...

Professionals were given the opportunity to discuss systems, applications, prototypes, or proofsof-concept with senior researchers and people from industry.

Several continuing education courses were organized by Chapters. In addition, a new dedicated university orientation tool has been made available on the Section website for undergraduates and graduate students in all branches of IEEE. All educational proposals, study and research programs and PhD courses at Italian Universities are listed and linked.

Activity among the IEEE Chapters in Italy Section has been particularly fervent. Recognitions for their activity included a Largest Membership Increase Award for the Photonics Chapter and Best Chapter Awards for IMS Chapter and AP/MTT/ED Joint Chapter. Four new Chapters launched in 2016 alone: Broadcast Technology, Consumer Electronics, Dielectric and Electrical Insulation and Information Theory.

Affinity Groups in the Section have been thriving. The Life Member Affinity Group was revitalized at the end of 2016, and the recently approved Women in Engineering (WIE) Affinity Group has been very active.

A new IEEE Historic Milestone in Italy was dedicated at the Politecnico of Milan to the invention of high-speed multiplier architecture by Luigi Dadda in 1965. The bronze plaque was unveiled at a ceremony on 29 September 2016.

The Section boasts a Section Awards Program enriched in the last year by six new awards: Honorary award, Distinguished Service Award, Industrial Distinguished Lecturer Award, Best Chapter Award, Exemplary Student Branch Award, Best Demo Competition for Young Professionals.

IEEE members in Italy are kept informed through a twice-yearly newsletter covering updates on the Section and its committees, Chapters, Student Branches and other activities and announcements.

Not least, Italy Section understands that recognition through awards should be a starting point for new and exciting projects. A laurel is not a decoration but a plant to grow!

> Tiziana Tambosso and Daniela Proto





National Engineering School of Monastir (ENIM), Tunisia Kido ovnloro ENIM and

Kids explore ENIM and discover a potential career

A highly motivated scout group

took part in this event, having fun

throughout the day right up until the

evening. It included a tour of vari-

ous departments at ENIM where the

children experimented with robotics

through an Arduino workshop and

learnt how to create a game from

their future and they seemed impa-

tient to grow older and change the

world through engineering.

They were so optimistic about

Scratch.

ENIM'S Women in Engineering (WIE) Affinity Group marked its first participation in the STAR Program last year, being awarded second place in December for its "exem-

plary achievements" during 2017.

Among the group's projects directed at school students was an event called 'Next mission is: Exploring ENIM'. Created

by WIE members and held at ENIM itself, the event was designed to show both girls and boys that WIE is not exclusively for girls. It gave a chance for young people to explore the world of engineering with a view to encouraging youngsters to become future engineers.

yp news

New Egypt YP board takes up reins from departing team

EGYPT Section received a request from its Young Professionals committee to step down at the end of last year due to work commitments abroad for the chair and vice-chair. Accordingly, the whole board decided to vacate their positions in order to give way to a new appointed committee.

We would like to thank Amgad, Khaled, Amin and Sally for their work during the previous period and they have continued as active Egypt Section volunteers to ensure the smooth transition to the new YP team. The Section has appointed the following members to continue the current YP board assignment to the end of 2018: Ahmed AboElSaoud (chair), Mohamed Tarek (vice-chair), Ahmed Abd ElKader (secretary), Mohamed ElShazly (treasurer) and Mohamed Amin (past chair).

Samir Shaheen

So how do other countries handle gender bias?

ALTHOUGH the number of women in engineering is steadily increasing, they are still under-represented in the field of electrical engineering. In Germany especially, the proportion of women pursuing a technical career is far below the average in other European countries.

To strengthen WIE in Germany, a face-to-face inter-group meeting at national level was organized in Berlin last May involving a wide range of participants, including students, professors and professionals working in industry.

We held open and constructive discussions looking at, among other things, the current situation of women at technical universities and considered whether being a woman influences her professional career in a male-dominated environment.

As some participants originated from other countries, we also compared the situation of women in engineering in Germany to those of other parts of Europe. One interesting finding was that while good students at schools in France, Spain and Italy are pushed by teachers and professors to become an engineer independently of gender, in Germany there seem to be a division of girl tasks and boy tasks starting at primary school. This leads women during their educational development to move further and further away from technical areas.

To counter this, we developed goals for further action to encourage and support women in the field of electrical engineering in Germany.

The workshop was concluded with a tour through the architecturally striking former Berlin Tempelhof airport, a historically protected landmark and a symbol of the eventful history of Berlin itself. It is partly an expression of the Nazi ideology of its day and served in World War II as a weapon production site using forced labour; at the same time, Tempelhof is also a symbol of freedom, becoming famous for the Air Lift of 1948–49

The next step for WIE Germany is to create a wider network for enabling active exchange between members as well as a mentoring platform. If you want to be part of this, join us by contacting at wie.de@ieee.org





Africa convenes its first SYP Congress, hosted in Nigeria

NIGERIA took the lead to host the first African Student and Young Professional (SYP) Congress, held at Baze University in the city of Abuja on 8–10 September 2017. The event was attended by 102 IEEE members and 20 invited guests from Nigeria, Ghana, Sudan, Kenya, South Africa, Uganda, Egypt and the Netherlands.

Amongst the 10 plenary and keynote speakers were Nigeria's minister of Communication Technology, Adebayo Shittu, and the IEEE MGA vice presidentelect, Martin Bastiaans. There were six workshops and a WIE panel session. Other activities during the three-day event included a city tour and visits to Lower Usman Dam, Katempe Hill and the Nike Art Gallery where the delegates were welcomed in African fashion and had an opportunity to inspect artefacts and take memorable photos.

The PES Workshop on renewable energy was facilitated by Tunde Salihu (Nigeria), the Continuous Education workshop by Rading Reinhardt (Kenya), IEEE SIGHT by John Funso Adebayo (Nigeria), and TISP and EPICS by Tamer Moneir Mousa Nassef (Egypt). The Strategy of Work workshop was led by Olabode Ojo, director of engineering at Phase3 Telecom (Nigeria), while the workshops for Entrepreneurship and Young Professionals were facilitated by Mohammed El-Dallal (Egypt). A presentation on 'Getting Ready for the Digital Economy' was delivered by John Matogo, the IBM University leader for East Africa.

The WIE panel session featured five experts – Gloria Chukuwdebe, Amina Batagarawa, Lebogang MM Madise, Patience Enahoro and Chidimma Ibeh-Dimnwobi – who discussed the topic 'Women in Africa: Challenges and Successes'. The panel was moderated by Toyin Oluwaniyi, co-founder of Eduteen foundation.

Ten judges inspected the work of seven Student Branches in a poster session. University of Ibadan Student Branch was announced as the winner while the first runner-up was Obafemi Awolowo University. Prizes for the poster session were sponsored by Smile Telecom.

Although financing was a big challenge, the organizing team managed to overcome this with the full support of the Region 8 and Nigeria Section. The seven members of the team, comprised of experienced and new volunteers, were led by Nigeria Section's YP chair, Abdullateef Aliyu.

We hope that the huge success of ASYPC 2017 will be the beginning of a new era in IEEE activities in Africa. We are very grateful to our sponsors Prof Tahir Mamman (vice-chancellor of Baze University), Phase3 Telecom, Smile, Ntel, GreenICTi, IAS, PES, Nigeria Section, AHCAA, Young Professionals AG, WIE, IEEE SIGHT and IEEE- EAB.

> Abdullateef Aliyu YP chair, Nigeria Section

> > student news



Opole hosts inaugural national meeting of YP groups from all around Poland

FOR the very first time Poland Section's Young Professional Affinity Group, together with students from Opole Student Branch, organized a national meeting which took place in the beautiful city of Opole.

The goal of the meeting was to integrate and activate the undergraduate and graduate IEEE community in Poland and establish an innovative link between students, young professionals, scientists and industry. Moreover, the event was intended to create a place with great conditions for interaction, development of networking skills, learning of the various engineering professions and discovering IEEE benefits.

The meeting gathered together Student Branch and YP representatives from Opole University of Technology, Warsaw University of Technology, Lublin University of Technology, West Pomeranian University of Technology and AGH University of Science and Technology.

Attendees took part in a technical plenary session, professional workshops and social evenings. On the last day there was a company visit to IFM Ecolink where attendees visited the modern production lines and become familiar with 'Industry 4.0' related topics.

The meeting was supported by the Faculty of Electrical Engineering, Automatic Control and Informatics at Opole University of Technology, the Association of Polish Electrical Engineers, Student Research Group ELEDYN and Poland Section's Women in Engineering Affinity Group.

> *Piotr Graca*, Poland YP chair *Andrzej Waindok*, Opole Student Branch counsellor

Particle swarm paper wins top prize at SPC

LUCIJA Brezočnik from the University of Maribor won the 2017 Region 8 SAC Student Paper Contest with her paper entitled 'Feature selection for classification using particle swarm optimization'. It is understood that Ms Brezočnik is the first woman to take the top prize in nearly 30 years.

All five finalists presented their papers during EURO-CON 2017 in Ohrid, Macedonia. The runners-up were



Lucija Brezočnik (right) receives her award from Region 8 Director Margaretha Eriksson.

Ely De Pelecijn from KU Leuven, Mathieu Jadin and Gautier Tihon from the Universite Catholique de Louvain, Istvan Taczi from the Budapest University of Technology and Economics, and Tim Thielemans from KU Leuven.

{ IN BRIEF }



IEEE spirit is alive in Tuzla again! The Student Branch at the University of Tuzla, Bosnia and Herzegovina was revived in 2017 and held its first event on 14 April, hosting Bosnia and Herzegovina Section chair Meliha Selak who gave a lecture on the topic 'Power System Protection – Where We Are Today'. Visiting IEEE members Dušanka Bošković. Vedad Bečirović and Selma Hanjalić presented their experiences working as IEEE volunteers in Bosnia and Hercegovina with an emphasis on PES Chapter activities.

The Student Branch at Czech Technical University (CTU) in Prague, Czech Republic co-organized last year's flagship Prague Embedded Systems Workshop (PESW) in cooperation with members of the Digital Design Research group in the Faculty of Information Technology. The Student Branch also organized the 2nd Student Poster Session, for the presentation of Bachelor and Master theses.

PESW 2018 takes place on 28–30 June. For details, see http://pesw.fit.cvut.cz/2018/



Last January, 20 students from National Engineering School of Monastir (ENIM), Tunisia had the chance to learn more about aeronautics and to introduce IEEE to new members during a visit to the Avionav factory in Borgine, Sousse. Avionav is a leading Tunisian company specializing in the manufacture of light aircraft.



ISET Radès University, Tunisia No-code or all-code? ISET Radès does both

ISET Rades Student Branch Computer Society organized a Coding Party and a WordPress workshop at the University. The workshop was organized free of charge for students, including non-IT students, to teach them how to create personalized websites using WordPress after several classes without any coding skills required.

The Coding Party demanded the exact opposite: participants' coding skills were tested during this competition in which each team was composed of a maximum of three members. Running alongside the twoday coding competition were social activities such as a gaming tournament, chess matches, Monopoly, X-box gaming and film entertainment. Counselor Mr Charfi and head of department Mr Kouki were present to talk about IEEE and encourage students to join the Branch.

All competition entrants received participation certificates and the top three teams won prizes, presented by our director, Mr Harigua. First place was taken by a team from ISET Radès, second place from ENSTAB Borej Cedria and third place from ISG Tunis.

> Aymen Ben Saada Student Branch chair

Tanta University, Egypt Student Branch marks decade with training

TANTA Student Branch celebrated its 10th anniversary in 2017 by organizing a mid-year training event at Tanta Higher Institute for Engineering and Technology on 4–9 February.

The Student Branch was founded by three volunteers in 2007: Ahmad Abo Elsaoud, Maged El-Elaimy and Bassem Taha. Their vision was to "Promote the level of technicality within the surrounding community". The opening ceremony of the mid-year training event brought back some old memories when past-volunteer and the second secretary of the Branch, Gehad Nagib, gave a talk entitled 'How to find your way'.

The event mission, in its sixth year, was to deliver a high-quality technical training program enriched through practical applica-



tions. Training was divided into nine technical tracks: solar energy, classic control and plc, 3Ds MAX software, AutoCAD software, web and cloud, security, embedded systems, internet of things and problem solving. About 200 students from different universities attended the event, along with 14 invited speakers including previous and current volunteers Ahmad Fouda, Ayman Alaa, Hassan Elshenawy and Yossef Essam.

Tanta Student Branch has also been organizing its annual MIU ('Made In University') competition for the last seven years, aiming to create a different way of learning – a hands-on approach in which experience is gained through completing projects. The main goal is to increase technical and non-technical skills of students in their first years of college.

During this year's edition of MIU (the 8th), past-MIU leader Aya Omer hoped to encourage the attendees to develop their career path and make their own projects through to MIU 9. A session about personal skills was given by life coach Hossam El Ghoroury.

Turkey's EGAP initiative tackles ignorance

THE Elif Gizem Akkaya Science and Technology Project (EGAP), co-ordinated by elected volunteers from Turkey Section's Student Branches, is entering its second year. While nine Student Branches were involved last year, this number has already jumped to 20.

Elif Gizem was a student in the Computer Engineering department at the University of Turkish Aeronautical Association (UTAA) in Ankara, while also volunteering within IEEE. She lost her life in a terrorist bomb attack on civilians on 13 March 2016 in Ankara Güvenpark. She was just 19.

By naming the project after Elif, volunteers in Turkey Section's Student Branches can remember her not just personally but in terms of education, science, technology and engineering. If terrorism is born from and fed by ignorance, EGAP represents a hope that ignorance can be overcome for the benefit of humankind.

The main purpose of the project is

to instill in the younger generation the principles of science, technology and engineering, and also raise awareness of the opportunities of studying at university. To meet these objectives, Student Branches voluntarily provide support to the EGAP by choosing a high school to which they give practical technical training in fields of their own choice.

This can typically involve months of training in basic electronics, robotics, coding, energy, biomedical and other fields, encouraging high school students to think technically and consider the options of going to university and entering an engineering profession.

The exhibition element of the project comes at the end of the training period, when the high school students are able to put their own ideas into practice using the knowledge and materials they have received. They get the opportunity to present their projects on an exhibition day, held in the spring semester, attended by academics, university students, IEEE volunteers, the press and other high school students who trained within EGAP.

The aim is to build their self-confidence and let them rub shoulders with academicians, university representatives and fellow high school students.

This year's exhibition date has been set for 27 April at the University of Turkish Aeronautical Association (UTAA), Ankara.

Anyone wanting to support the project can do so in a variety of ways, from offering sponsorship to help meet expenses to providing and organizing the training sessions. For more information and to get involved, contact ega.kurumsal@ gmail.com or follow the project on social media:

www.facebook.com/egaprojesi www.instagram.com/egaprojesi www.twitter.com/egaprojesi

Asım Köroğlu EGAP press-publicity coordinator asim.koroglu.tr@ieee.org

National Engineering School of Tunis (ENIT), Tunisia To attack the academic year, we went into retreat

ENIT Student Branch held its first IEEE Retreat on 12 August 2017 at the Elspace social innovation hub. By arranging a retreat in professional space away from the university environment, the intention was to benefit from fresh vibes to increase creativity and innovation.

It was a great success. Diverse activities took place, from icebreakers and work plan presentations to group brainstorming and general discussion.

This unusual event – a first as an activity in Tunisia – helped the Student Branch get a clearer vision about our work this year. We are drawing our own path to success, to reach higher goals and to meet higher expectations.



Two general assembly and teambuilding exercises were run last year. The first general assembly was designed to welcome newcomers to the Student Branch, introducing the crew and providing a deeper look into IEEE. The event also served as an ice-breaker between new members, achieved by grouping everyone into teams and assigning them a variety of thematic tasks.

A second general assembly was held on 8 November. This began with a one-hour meeting to evaluate work in progress. Coders of Xtreme were rewarded with a certificate of participation and members were evaluated and divided into categories based on their work through the previous period. We even initiated a new feature of choosing a 'member of the month', which came as a surprise to everyone. The winner gets a prize from the Student Branch, so the aim is to boost all members to give their best and to move forward.

The event closed with a presentation of the next period's agenda and programs.



The Student Branch celebrated IEEE Day on 4 October with an event that gathered a huge number of visitors. It was an epic day for everyone to get away from the stress and forget for a moment about school and studying.

The program was very diverse from IEEE success stories to games, choreographies and WIE charity booths. It was dedicated to many things: learning, helping others and, of course, having fun.



■ IEEE Xtreme 11.0 came to ENIT with the Student Branch yet again organizing the event. Members never stop impressing us with their incredible programs: they think about even the smallest details.

After the check-in came the various activities that gathered all the categories from coders to art lovers. The night passed in a blink of an eye with all the fun music, video games, film projection and the spirit of coders who spent 24 hours with no sleep but determined to fulfil the mission.

■ ENIT's Women In Education Affinity Group have achieved amazing work and made endless efforts over the last year. A yoga session right after exams week featured the incredible coach Maissa Ghribi on 11 November helping get rid of all the stress and negative vibes. After that, an innovation workshop took place in collaboration with TEMS Chapter, to unleash the creativity and innovation of Student Branch members.

A workshop titled 'How to succeed our life project', led by Leila Ammar, was aimed at women engineers to prepare them and push them to dive deep into the professional world. Another workshop session, led by leadership coach Amina Ellouze, amazed us with her memorable sessions about how to reach the leader in you.



As an exceptional closure before winter vacations and as a part of STAR program, the WIE Affinity Group set up a booth for a whole week at ENIT as a preparation for its visit to SOS Gammart on 26 November. The visit was primarily focused on educating the children and to offer them a glimpse of the opportunities in the world out there, from scientific experiences to an aeronautic exhibition that astounded them.



Qatar University

Students take a look behind the scenes at telecommunications giant Ooredoo

FEMALE students from Qatar University Student Branch visited the international telecommunications company Ooredoo at its headquarters in Doha, Qatar last March. The company has a customer base across the Middle East, North Africa and Southeast Asia. The students were given the opportunity to step behind the scenes of 4G LTE, mobile and fibre services of the company.

After a presentation about Ooredoo's current and future plans for 5G, supernet and more, the next stop of the trip was the company's innovation lab, in which current solutions are displayed, and experts spend their time brainstorming new ideas. Innovations displayed included SMART Solutions for Education & Visual learning, Enterprise and SME, Security, Medical and Smart Homes. The students were able to explore and discover each station for themselves.

The final destination of the visit was to a local site – a base station, handling telecommunication connections for that area for 2G, 3G and 4G services, as well as cables for fiber optics and landlines.

It was a great opportunity for the visitors to see in person what they had been learning during lectures in theory. Our thanks go to Ooredoo for hosting such a valuable and memorable visit.

University of Thessaly (Lamia), Greece

STEM workshop aims at teaching the teachers



MEMBERS of the University of Thessaly (Lamia) Student Branch, assisted by volunteers, were invited to participate in a STEM workshop on 13 December 2017, organized by the Regional Primary Education Directorate of Central Greece. More than 200 teachers attended the event, which took place at an elementary school in Lamia.

The workshop included lectures and hands-on tutorials. Student Branch members organized five TISP sessions based on previous IEEE TISP projects that had been organized locally in the past, and teachers were shown small projects that introduced a practical exercise and the more exciting side of science. The projects involved putting participants into teams and giving each the appropriate educational resources they would require for their project but only limited materials. Participants, working as a team, had to plan ahead in order not to waste precious materials and compete with other teams in building various structures. These projects were inspired by course plans at tryengineering.org.

Projects included making a boat that floats on water, constructing the tallest tower to support a particular weight, building a functioning big wheel, assembling a glider able to fly the furthest and building a robot arm able to lift and hold an object.

Afterwards, some teachers were motivated to invite Student Branch members to explore potential ways for further collaboration. *Anastasios Mexias*. SB chair

Oleksiy Yanyk, SB secretary



■ 'Security for everything, everyone, anytime' was the theme for the 8th Scientific Workshop organized by the University of Thessaly (Lamia)'s Student Branch on 21 March last year.

The event attracted more than 400 attendees, mainly students of the University of Thessaly and the Technological Educational Institute of Central Greece. The amphitheatre was crowded during all the presentations from six renowned researchers and professors from academia. The Student Branch's presentation concluded the session.

During the second part of the workshop, participants were intrigued to attend a 'capture the flag' competition during which 16 teams consisting of between two and four students got an opportunity to test their hacking skills. This was followed by a music party and an award ceremony.



Contestant during the technical report presentation at Gheorghe Asachi of Iasi, TIEplus 2017.

TIEplus contest puts virtual prototyping skills to the test

TIE (Techniques of Interconnection in Electronics) is a professional student contest that's well-known among university and electronic industry communities in Romania and neighbouring countries. It involves designing a PCB using industry standard CAD tools during a four-hour session. TIE is held each year during spring at a hosting university in Romania and its 26th edition took place in 2017.

However, during the 2015 technical workshop, a new contest idea was defined and presented as extension of the traditional TIE, focused on simulation technologies for PCB design, referring mainly to SI & PI design. The newly born concept became a reality on 6 November 2015 as the first edition of TIEplus.

This time, the subject involved the signal integrity simulation of a multi-board video acquisition system. After a two-week solving period, the contestants met at the Stefan cel Mare University of Suceava and presented their solutions to the technical committee at an open meeting. Each solution was discussed and potential improvements were outlined.

A second edition of TIEplus was hosted in April 2017 at the Technical University Gheorghe Asachi of Iasi, with a focus on Power Integrity simulations for high speed memory systems.

TIEplus can be seen as one step further in the direction of promoting expertise in the field of virtual prototyping for electronic packaging. The aim is to create a collaborativecompetitive environment in which the candidates present their technical solutions for the proposed subject, but also exchange ideas on simulation approaches and get in touch with other PCB design professionals.

The contest uses an online platform for all information exchange between contestants and committees. TIEplus organizational efforts are coordinated by Continental Automotive Romania in partnership with Politehnica University of Bucharest and supported by simulation software companies CST and ANSYS.

The 2018 edition final presentations will take place on 19 April at the University of Pitesti. Complete schedules and details on TIE and TIEplus events can be found on the official website www.tie.ro. The TIEplus timeline and important notifications can also be followed on Facebook at www.facebook.com/ TIEplus.Challenge

Catalin Negrea

ISSAT Sousse, Tunisia Turning kids into young engineers through coding

THE Industry Applications Society at ISSAT Sousse, in collaboration with the University's WIE Affinity Group, organized three sessions of the Young Engineer program – an initiative launched in 2016 and supported by the IAS Student Branch Chapter – at Hayjadid 2 primary school (Eljem–Mahdia) in which children learned the basics of programming.

The first session took place on 12



November, during which we showed the kids how to use Scratch to program a video game. The second session ran on 18 November, similar to the first but involving

more challenging exercises. The raised level of difficulty helped the children to develop their potential.

The third session, entitled 'The league of the young engineer', was styled as a competition among the children, giving us a good idea of the levels that everyone had achieved – very satisfying!

Khoubayb Layouni IAS ISSAT Sousse SBC chair