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REGIONAL REPORT

The Pacific Telecommunications Council: Mobilizing the Big Connections in Asia-Pacific ICT

By By Jason O'Rourke and Stephen McClelland, Pacific Telecommunications Council

The Pacific Telecommunications Council (PTC) exists to make, and mobilize, big ICT connections in the Asia-Pacific region. Big connections are needed between leaders in the world of ICT in terms of advancing dialogue and professional relationships. Big connections are also needed between identifying the new ICT technologies now emerging and understanding the possibilities they represent. But the biggest connections of all are needed for the two billion people unable to participate in the digital society because they lack ICT facilities.

Chartered as a non-profit organization with a central secretariat in Hawaii supporting a portfolio of international activities and membership services, PTC is enabling these ICT-related connections to be established between thousands of professionals, companies, and interest groups from more than 40 countries across the Asia-Pacific region.

INTERNATIONAL, INTERDISCIPLINARY, AND COMMUNITY-BASED CONNECTIONS

PTC's annual conference, held in Hawaii each January, is firmly established in the industry calendar as the largest event of its kind in the region. It drives professional conversations and collaborations across ICT communities as diverse as submarine cable, satellite, and data centers as well as mobile and telco/carrier interests. In each case, experts look to PTC for insights into emerging technologies and market outlook. The modern ICT market is complex and dynamic, so PTC promotes broad participation with many perspectives to take account of new, unexpected demands and developments.

PTC activities are diverse, responsive, and frequently big picture and visionary in scope. Among many topics, recent PTC programs have considered the future of the Internet, discussed the impact of video on traffic, debated the upsurge of social media growth in resource allocation, assessed a new era of international Internet regulation, evaluated the lessons learned about ICT response in the 2011 Japanese tsunami, and considered the technical context and implications for upcoming 8K HDTV, and even intelligent car.

Now, in the upcoming PTC '17, another major theme has been identified: the issue of gigantic change at the heart of the industry. This mega-trend change is forcing all players to confront new customers, relationships, technologies, and perhaps even new identities. In short, these are changing realities.

"PTC'17: Changing Realities will present attendees with major insights and contexts to discuss how their business, customer demand, the global economy and global regulatory environment are all changing simultaneously," concludes PTC CEO Sharon Nakama. "Opportunities for every ICT executive and professional certainly lie within these dynamic changes, ready to be unearthed in a new year



Author Joe Weinman interviews Red Hat's Margaret Dawson and Salesforce's Ryan A. Servatus (left to right) during the keynote panel "Prospects in the Cloud" at PTC'16.



PTC Members Yasuo Sato, Tom Cooper, Jagadish Rao, Shinichi Nabekura, and Masaaki Sakamaki (left to right) enjoy networking at the Members Soiree.

at PTC'17, through the unparalleled dialogue and networking our annual conference is known for."

PARTNERSHIP AND POLICY CONNECTIONS

Achieving this broad approach requires partnership and collaboration in many different ways. Like-minded non-profit groups such as the Pacific Islands Telecommunication Association (PITA), Sub-Optic, and the World Teleport Association (WTA) frequently collaborate in PTC program creation. PTC and the IEEE Communications Society and their members in the ICT sector have an especially evident joint interest in discussing the emergence and impact of new technologies and practices that can meet the needs of the region.

ICT complexity also presents regulatory and policy challenges. Emerging areas such as the Internet of Things, another current PTC program interest, present highly complex scenarios and demand that ICT policy be viewed in many different ways with different stakeholder perspectives. PTC attracts key regulators, policymakers,

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IEEE Activities in Iraq: The IEEE International Conference Multidisciplinary in IT and Communication Science and applications (AIC-MITCSA 2016)

By Sattar B. Sadkhan, Chair of IEEE ComSoc Iraq Chapter

The IEEE Iraq Section, the IEEE ComSoc Iraq Chapter, and the IEEE CIS Iraq Chapter, scientifically support the “Jaffar Al-Sadiq University” in Baghdad in its hosting of the IEEE International Conference on Multidisciplinary in IT and Communication Science and Applications (AIC-MITCSA) 9–10 May 2016.

The Conference represents one of the great challenges facing the Iraqi scientific community in the last two years, since the last IEEE International Conference (ICECCPCE 2013) at Mosul Technical College 17–18 Dec. 2013. Six months after that conference, Iraq passed through a very critical and difficult time due to the occupation by ISIS forces of many Iraqi cities, such as Mosul, Tikrit, Anbar, and Faluja. More than five universities were closed in these cities, and this had a great effect on the Iraqi scientific community. From that time, the IEEE Iraq section tried to attract many universities to hold the international conferences with the scientific sponsorship of IEEE, to send a great message to the world, that the Iraqi Brain, exists, even though the environments is very difficult! And these efforts succeeded when “Jaffar Al-Sadiq University” organized this conference, which was important in the history of the Iraq scientific activities.

The planning efforts started in June 2015, when groups from both Al-Sadiq University (IT College) and the IEEE Iraq ComSoc Chapter decided to have weekly meetings at Al-Sadiq University to plan the details and determine the requirements of the conference.

The Conference was successfully held 9–10 May 2016, and approximately 400 participants attended in the main hall of the Conference. Most of them were from Iraqi Universities, including Basrah, Kufa, Kerbala, Babil, Baghdad, Al-Mustansyria, Iraqia, Technology, Al-Nahrain, Diyala, and Kirkuk, and many ministries sent a representative, including Oil, Industry, Electricity, and Communication.

The Conference received 148 papers from the many countries. After careful reviewing, the Scientific Committee decided to accept 59 papers, nine from outside Iraq (UK, France, India, Iran, Bilarus, Poland, Malaysia), and 50 from Iraqi universities.

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One the weekly meetings of “volunteer group” from IEEE ComSoc Iraq chapter with academic staff from Al-Sadiq University.



Academic group from many Iraqi universities with the Chairman of Iraq ComSoc Chapter (Prof. Sattar B. Sadkhan).



Many students from different Iraqi universities participated in the (Final Year Projects Workshop).



A group of participants in the conference after the completion of the opening ceremony on 9 May 2016.

The 2016 39th International Conference on Telecommunications and Signal Processing (TSP), 27–29 June, 2016, Vienna, Austria

By Karol Molnar, TSP 2016 General Chair, and Norbert Herencsar, TSP 2016 Deputy Chair and IEEE Czechoslovakia Section CAS/COM/SP Joint Chapter Chair

The 39th International Conference on Telecommunications and Signal Processing (TSP) was hosted by the pulsing city of Vienna, Austria 27–29 June, 2016. Under the patronage of IEEE Region 8, the IEEE Austria Section, the IEEE Czechoslovakia Section, the IEEE Croatia Section Communications Chapter, industrial partners and exhibitors, CESNET Czech Republic, Flaxcom Holding Corporation Hungary, and Honeywell International s.r.o. Czech Republic, the TSP 2016 Conference was organized by eleven universities from the Czech Republic, Hungary, Turkey, Poland, the Slovak Republic, Slovenia, Croatia, Bulgaria, and Japan. The Conference serves as a premier annual international forum to promote the exchange of the latest advances in telecommunication technology and signal processing.

The mission of the TSP Conference is to support both novice and experienced scientists in gaining and sharing professional expertise, to establish new partnerships in a friendly and collaborative environment, to collect new ideas, and to create new cooperation between research groups from universities, research centers, and the private sector. In line with this mission statement, TSP 2016 provided a great opportunity to more than 180 researchers from 38 countries around the world to demonstrate their exciting achievements in fast evolving research fields. From a total of 274 submissions, the Technical Program Committee (TPC) of the Conference accepted 170 papers after a careful review process, including 130 oral and 40 poster presentations scheduled in 20 oral and 3 poster sessions, respectively. The technical sessions of the conference were focused on various topics, from information systems, network services and technologies, telecommunication systems, modelling, simulation and measurement, to analog, audio, speech, language, biomedical, digital, image, and video signal processing. All presented papers will be indexed by IEEE Xplore®.



Assoc. Prof. Norbert Herencsar with Keynote Speakers Prof. Ray-Guang and Prof. Ahmed Elwakil.



TSP 2016 General Chair, Assoc. Prof. Karol Molnar (Honeywell International s.r.o., Czech Republic) with Dr. Peter Nagy (IEEE Region 8 Conference Coordination Subcommittee Member, HTE, Hungary), Ms. Asilhan Kartci (Vice-Chairman of IEEE Student Branch of Brno University of Technology, Czech Republic), Prof. Ahmed Elwakil (University of Sharjah, UAE), Assoc. Prof. Norbert Herencsar (IEEE Czechoslovakia Section CAS/COM/SP Joint Chapter Chair and TSP 2016 Deputy Chair), Prof. I. Cem Goknar (Isik University, Turkey), Prof. Costas Psychalinos (University of Patras, Greece) and his students.

One of the important factors for the success of the TSP 2016 Conference was the presence of three world leading keynote speakers. First, during the opening day ceremony, Prof. Ray-Guang Cheng from the Department of Electronic and Computer Engineering, National Taiwan University of Science and Technology (NTUST), Taiwan, delivered a speech entitled “Machine Type Communications: Challenges and Perspectives.” This keynote speech
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Best Student Paper Award Ceremony during Gala Dinner.



Participants of the TSP 2016 Conference in Vienna.

and policy advocates from the region to discuss, propose, and share experiences in these new environments.

RESEARCH AND OUTREACH CONNECTIONS

The largely open and flexible nature of the PTC organization and approach has encouraged volunteer activity and allowed outreach to flourish. Several countries maintain affiliated PTC Chapters running national activities organized and hosted locally with their own programs.

PTC also supports and organizes a significant academic and research community interest. The PTC Young Scholar Program grants travel scholarships on a competitive basis to graduate students to enable them to present papers at the annual conference. For established researchers, paper publication in international journals is also encouraged.

In parallel, PTC supports research into regional ICT development issues. PTC has sponsored specific research programs, on-line directories of ICT4D, and the publication of Broadband Reports offering in-depth, country-scale overviews. To date these have covered, respectively, Fiji, Myanmar, and Indonesia. Other PTC initiatives include the PTC Academy, which organizes in-country executive and professional ICT training and workshops.

NEW MOBILE ECOSYSTEM CONNECTIONS

The Asia-Pacific region has seen breakneck growth in mobile which, in a broadband age, may finally close the connectivity gap and offer many underserved populations the reality of a digital society they will need to develop their social and economic potential. The debate about this new mobile world and what form it should take has resulted in PTC initiating a second regional conference, Spectrum Futures, in Singapore.

Now in its third year, Spectrum Futures focuses on perspectives of what needs to happen in the mobile ecosystem of stakeholders, in terms of spectrum resource management, mobile business models, and regulatory interventions, to make this digital society happen.

This ecosystem is complex and intricate. In this new world of mobile ICT, there are many different players. Increasingly, many stakeholders are likely to be from outside the traditional world of ICT altogether. "We are really excited that this is our third Spectrum Futures conference in Singapore," says PTC CEO Nakama, "because it is uniquely positioned to bring together the whole ecosystem, including regulators, ISPs, app and infrastructure providers, as well as backhaul, to discuss how to connect the next two billion Internet users across South and Southeast Asia." But once again, the PTC approach in Spectrum Futures will be, as always, to facilitate professional relationships and dialog, ready to build the connections the Asia-Pacific ICT community will need in the future.

For more information, please visit www.ptc.org and www.spectrumfutures.org.

addressed challenges and analytical tools for designing and analyzing the random-access channel for 5G cellular networks. At the beginning of second day, Prof. Ram M. Narayanan from the Department of Electrical Engineering, The Pennsylvania State University, USA, delivered a keynote speech entitled "Sensing and Communications Using Ultrawideband Random Noise and Chaotic Waveforms." It was followed by another keynote speech related to a hot topic, "Fractional-Order Circuits and Systems: An Emerging Interdisciplinary Research Topic," by Prof. Ahmed Elwakil, Department of Electrical and Computer Engineering, College of Engineering, University of Sharjah, UAE. This talk aimed to provide an overview of the current status of research in this area, highlighting specific problems that need to be addressed and future perspectives.

In addition to regular sessions, the TSP 2016 Conference also featured the "6th SPLab Workshop of Signal Processing Laboratory" of Brno University of Technology, Czech Republic, and hosted four special sessions: "Fractional-Order Systems: Theory, Design and Applications," by Assoc. Prof. Jaroslav Koton, Brno University of Technology, Czech Republic, *et al.*; "Signal and Image Processing for Biometric Human Recognition: Theory, Methods, Applications and Systems," by Dr. Larbi Boubchir, University of Paris 8, France, and Prof. Ahmed Bouridane, University of Northumbria, UK; "Monitoring and Control Based on Image Processing," by Dr. Loretta Ichim and Prof. Dan Popescu, University Politehnica of Bucharest, Romania; and "Photonic Networks and Services: Theory, Design, Modeling, and Applications," by Dr. Josef Vojtech, CESNET a.l.e., Czech Republic, and Dr. Petr Munster, Brno University of Technology, Czech Republic. These special sessions provided a great opportunity to meet several prominent representatives of these areas, and have thrilling discussions on state-of-the-art results and future challenges of these emerging scientific disciplines.

Finally, in cooperation with the IEEE Circuits and Systems Society and the IEEE Czechoslovakia Section CAS/COM/SP Joint Chapter, to recognize outstanding technical contributions by students, as evidenced by the quality of the papers, their presentations, and their technical excellence, the main authors of the best four student papers received awards from the TPC during the Conference. The Best Student Paper Award consists of a certificate and an IEEE Student or IEEE Graduate Student membership for 2017.

Preparing for the 40th anniversary of TSP Conference, the organization committee kindly invites all telecommunications and signal processing professionals to the TSP 2017 event, which will be held in July 2017 in Barcelona, Spain. For more information please visit <http://tsp.vutbr.cz/>.

IRAQ CHAPTER ACTIVITIES/Continued from page 2

The Conference had two workshops:

- The Internet of Things workshop included two keynotes, one from Basrah University, and the second from the U.S. (Cisco), with direct communication of his lecture through Webex.
- The second workshop had the topic, "Iraqi Women in Science and Engineering: Status and Challenges," with four speakers from Al-Mustansyria University and Diyala University.

The Conference had another very interesting workshop: "The Last Year Projects of Undergraduate Students." In this workshop, 10 universities participated, and the Scientific Committee nominated six of these projects as best participated projects.

Many participants from Iraqi universities were surprised at the great success of this Conference, and they were very glad that Iraq sent a positive message to the world (through the support of IEEE), that the Iraqi brains exist, and that the Iraqi universities are open and the academic staff is working seriously to follow the progress of science and technology.

This scientific event is just one from many scientific workshops, lectures, and meetings held in many Iraqi cities recently.

GLOBAL

COMMUNICATIONS

NEWSLETTER

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