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CONFERENCE REPORT

ComSoc Young Professionals at ICC 2018

By Nury Gabriela Ramirez Cely, ComSoc YP Committee Chair

In collaboration with the ICC 2018 organizers, the ComSoc Young Professionals Committee organized the "Meet and Greet" event on May 21, 2018. Approximately 50 postgraduate students attended the event and had the opportunity to talk, laugh and get to know a little bit more about ComSoc's global leaders.

Nury Ramirez, ComSoc YP Committee Chair, gave the welcoming words and shared some of her experiences inside IEEE since she was an undergraduate student. She discussed how IEEE ComSoc was a key pillar for her to win a scholarship to travel to Mexico for her post degrees studies and made all participants laugh when she mentioned that she met her husband at IEEE. Nury invited the students to see the value that IEEE ComSoc can provide for their professional and personal growth, as it was for her.

Students were having drinks and talking to each other, and then they received encouragement to talk to ComSoc leaders who were also in the room. Prior to the event, these leaders shared some facts about themselves to Nury, something unique that would be hard to figure out from their Linkedin profile. During the meeting, the students had all of these facts in sheets and they were encouraged to form groups and discover, for example, who brought a cow to a class once or who had long red hair.

Gagangeet Singh Aujla and Anish Jindal presenting findings on the riddle

Ali Ghrayeb, Roberto De Marca, Khaled Letaief with Nury Ramirez, YP Commitee Chair.

Genya Ishigaki, Tham Nguyen, Jane Frances Hollanes Pajo, and Shayan Monabbati talking with Dave Michelson.

After one hour of talking, two teams completed the riddle and won. Team#1 included Genya Ishigaki, Tham Nguyen, Jane Frances Hollanes Pajo, and Shayan Monabbati; team #2 included Gagangeet Singh Aujla and Anish Jindal. Each of them

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ComSoc Young Professionals and Board of Governors leaders at the Meet and Greet event.

CONFERENCE REPORT

National Big Data and Technologies Workshop 2018 in Pakistan

By Kashif Bashir, IEEE ComSoc Lahore Chapter Chair, Pakistan

The IEEE ComSoc Lahore Chapter, in collaboration with the IEEE Lahore University of Management Sciences (LUMS) Student Branch Lahore Section, organized a two-day event, the "National Big Data and Technologies Workshop 2018" on 24-25 March 2018. The event was hosted by LUMS Pakistan.

In the context of the emergence and recent advancement of big data industries around the world, this workshop was organized to enable the participants become familiarized with the concepts and receive the hands-on experience of some of the tools and techniques used both in industry and academia. The program covered three lab sessions and five very informative talks on various applications of machine learning and artificial intelligence. A total of 130 participants from both industry (36 percent) and the academia (64 percent) attended the workshop.

At the start of this event, in his welcome note, Dr. Shahid Masud, the Dean of the LUMS School of Science and Engineering, stressed the importance of big data and artificial intelligence and thanked all the speakers and said that this workshop would be beneficial to inspire more interest in intelligence-based applications in academia and industry, and that it would solidify our efforts for a quick adoption of such technologies in our society.

Dr. Faisal Sheikh from KICS UET Lahore, in the first technical talk of the event, presented a talk on "Deep Learning and Applications." In his talk, Dr. Sheikh presented his work on Optical Character Recognition and General Pattern Recognition to digitize historical manuscripts. Next, Dr. Rana M. Gufran from FAST National University of Computer & Emerging Sciences (NUCES) Faisalabad delivered a lecture on "Gradient Descent Algorithm and its Variants." In the third talk of the event, Prof. Dr. Mian M. Awais from LUMS presented his work on "Muweshi Paal (Animal Farmer) System." He explained that the aim of this system is to provide "virtual veterinary services" to indigent animal farmers in remote areas.

In the first lab session, Mr. Ahmad Nadeem, a data analyst at Energy Informatics Group (EIG), LUMS conducted the session on "Data Analytics Workshop using R" Part1. The attendees were first introduced to IDE, which is used for R and its coupling syntax. Participants used a data set on statistics of the Kickstarter project from Kaggle and applied different machine learning algorithms to predict certain future outputs, and gained an insight into data by introducing data visualization using Plotly. R was indeed one of the most important takeaways for the attendees, as they received hands on experience with machine learning

The Organizers, left to Right: Azan Bin Zahid , Shiza Shakeel , Efra Usmani, Dr. Wasif Tanveer Khan (Branch Counselor), Dr. Amjad Hussain (Chair, IEEE Lahore Section), Kashif Bashir (Chair, IEEE COMSOC Lahore Chapter), Wajahat Baig , Kashmala Usmani , Darakshan Fazail and Taha Ali.

In the second lab session, Mr. Mazhar Javed Awan from the University of Management & Technology (UMT) Lahore first delivered an introductory lecture on how SQL is used in big data analytics and its useful features such as distribution of data across a cluster, parallel data processing, and its support for different machine learning algorithms. The lecture was followed by a 90-minutes hands-on workshop during which participants implemented the learned concepts.

Then Mohsin Ali, senior manager from Infogistic, presented a talk on big data in health

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CHAPTER REPORT

IEEE ComSoc Harbin Chapter Members Reach a New Milestone

By Weixiao Meng, Chair, and Shuai Han, Vice Chair, IEEE ComSoc Harbin Chapter, PRC

In order to attract more talent and enhance its international influence, the IEEE ComSoc Harbin Chapter organized a series of recruiting events targeted to faculty and students of northeastern universities in China since 2018.

The core volunteers made a significant effort to promote IEEE and ComSoc. Chapter Chair, Prof. Weixiao Meng, and Vice Chair, Dr. Shuai Han, organized a publicity meeting at which they described the history, development and current influence of the IEEE ComSoc Harbin Chapter. Faculty members also shared the functions of IEEE ComSoc with their students and encourage them to start their professional careers with a ComSoc student membership. At the same time, the Harbin Chapter also made full use of multimedia social networks. After making contact with professors who are focusing on information and communications engineering in northeastern universities, QQ and WeChat membership groups were established among universities and various organizations, mainly oriented toward teachers, master and Ph.D students. In those groups, the chapter issued the relevant notifications for the recruiting events and sent warm invitations to the potential teachers and students. In order to organize some activities afterward, the Harbin Chapter raised funds for customize T-shirts for the new members and guests.

As a result of the meticulous preparations, many teachers and students responded positively. The number of active members in the IEEE ComSoc Harbin Chapter had reached 121 by April, 2018. According to the IEEE Current Grade Description, there is one associate member, 38 graduate student members, 51 members, 12 senior members, 17 student members, and two affiliate members. Among the 121 members, 64 are new members who joined since last September, and more than 50 percent of the new members are student or graduate student members.

Through data analysis, we can find that the IEEE ComSoc Harbin Chapter membership is the absolute majority in the Harbin Section. They mainly focus on computer sciences and information, engineering and technical communication.

Also, the Harbin Chapter nominated Ms. Qian Chen, a Ph.D. student member, as the student chair, serving in an important bridge role between the chapter and all kinds of students.

In the future, the IEEE ComSoc Harbin Chapter will organize a series of lectures and academic activities for members in different areas to boost communication and cooperation. It is believed that with the joint efforts of all members, the Harbin chapter will develop in a better way.

CONFERENCE REPORT

A White Paper–Seminar at LED-Expo in Thailand: "LiFi's True Story vs Fake News"

By Keattisak Sripimanwat, Chair of the IEEE ComSoc Thailand Chapter

An annual event sponsored by the Electricity Generation Authority of Thailand, involving a number of LED manufacturers, lighting and energy policy makers, academia, and many others, was organized on 11-13 May 2017. It included an industry panel, business matching, an exhibition, a lamp design contest, seminars, and other activities. Among popular LED application areas for the niche market, visible light communication (VLC) is a promising technology. IEEE ComSoc and the ECTI-Telecom chapter then presented a combined topic of lighting and communication with a two-hour talk in this expo. The presentation was focused on the widespread controversy of VLC migration being "LiFi (Light Fidelity)."

Referring to the amazing coined word similar to the traditional WiFi, LiFi has been in use for many years with an astonishing impact, such as a hundred times faster than WiFi, up to a hundred billion dollars forecasted market value, impressive news from the world's top media, and multiple awards from various organizations. A few unforgettable quotes were created, such as "Forget WiFi: meet the new LiFi Internet" and "Wireless data from every light bulb." Various demo-clips have also gone viral. Eventually, two sides of the same coin have been unveiled recently appearing both as true stories and fake news.

In this second time at the LED-Expo, a VLC white paper was debuted with a talk structured chronologically from the basics of visible light through the development of optical communication, to the final proven surveys on patents, publications, prototypes, standards, marketing reports, and news on the main media. Audiences were also asked to consider four basic criteria throughout the talk, specifically whether LiFi is low-cost LED or high-cost and a more complex laser/LED, fixed wireless communication or with mobility, dual lighting with data or communication solely, one way (simplex) or full duplex-optical communication.

LED-Expo 2017, Bangkok

Among those six surveyed topics, clear evidence of this eye-catching technology is on only the patent (i.e. a Korean mobile phone company is the top assignee, and the chairman of the IEEE 802.15.7 task group (2009) is listed as the top inventor). Meanwhile, the remaining five menus fall into the shadow of doubt!

Briefly, it is highly surprising how LiFi impresses people without independent reviews neither on claimed prototypes nor those magic videos. And even in peer reviewed publications claiming beyond Gb/s experiments, they are too far from practical communication environments. However, a number of media reported those labs were set up as the world's milestone wording with "tested," "real environment," "true pictures," and "LiFi: 100 times faster than WiFi." Moreover, the definition of this WiFi counterpart has been migrating gradually as many traditional optical free space products also renamed themselves to LiFi. Not only that, a signal from a fixed lamp or even a blinking LED on children's shoes are called LiFi as well.

In this seminar, all surveys were verified by 25 audiences. They were also invited to re-investigate rumors of LiFi and its multi-billion dollar market report, meanwhile a fixed definition

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CHAPTER REPORT

Artificial Intelligence Leaders Forum

By Leo Hwa Chiang and Ewell Tan, IEEE Singapore Office

There are many technologies nowadays that attract our attention. Artificial Intelligence (AI) is one of these fascinating technologies. Recognizing the importance of AI for driving enterprise strategies, the IEEE Singapore office brought together the IEEE Communications Society, IEEE Computer Society and IEEE Standard Associations to partner with Alpha Global Network (AGN) to organized an AI Leaders Forum to help participants gain insights about AI and what they should expect from it and how to fit it into their business model.

This forum was held at the ParkRoyal on Beach Road Hotel in Singapore on 15 May 2018. Many high profile AI experts and early adopters shed light on how and where business can apply AI effectively. Prof. Simon Chesterman, Dean of the Law School at National University of Singapore (NUS) chaired the conference. Dr. Ettikan Karuppiah, Director of Developers Ecosystem from NVIDIA, gave an opening keynote speech and shared his views on the leading AI breakthroughs from various industries. Dr. Bin Ma, Principal Engineer from Alibaba, delivered his talk on how speech and language processing are going to transform in the near future. Dr. Thomas Ho, Department Head, Smart Energy and Environment at the Institute for Infocomm Research (I2R) A*STAR, discussed how AI is transforming smart cities and

Mr. Leo Hwa Chiang, Director of Singapore Operations, IEEE Asia-Pacific Limited gave a speech at the forum.

energy around the world, for instance, applying AI to elevators to reduce energy consumption.

After an intensive morning session, participants and speakers had a networking lunch. While the food was delicious, the conversation about AI and Machine Learning (ML) were still carrying on. After the appealing lunch, Chris Auld, Principal

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BIG DATA/*Continued from page 2*

care. In the last technical talk of this event, Dr. Ali Hammad Akbar from the University of Engineering & Technology (UET) Lahore presented his research paper, "Indoor Localization Using Wi-Fi: Top Five Technologies," on application of machine learning algorithms on fingerprinting data to improve indoor localizations. His work showed that the performance of the top five algorithms obtaining an average accuracy of more than 95 percent.

In the last lab session, Mr. Ahmad Nadeem, a data Analyst from Energy Informatics Group (EIG), LUMS conducted the session on "Data Analytics Workshop using R" Part2.

Mr. Kashif Bashir, Chair of the IEEE Lahore chapter, presented the Lapin pin for the 65th anniversary of ComSoc to all the invited speakers at the workshop

At the end of the event, Dr. Amjad Hussain, Chair of the IEEE Lahore Section, gave a closing speech sharing his experience with the students and commending the effort of the IEEE ComSoc Lahore chapter and IEEE LUMS Student Branch Lahore Section and all those who organized this event and the participants as well for their motivation to learn about the new trends. At the end, souvenirs and certificates were distributed to the speakers and participants, respectively.

YOUNG PROFESSIONALS/*Continued from page 1*

called to the stage to each of ComSoc's leaders to reveal their "secrets" to the rest of the audience. IEEE ComSoc leaders such as Stefano Galli, Dave Michelson, Lajos Hanzo, Ricardo Veiga, Ashutosh Dutta, Ian Wong, Joel Rodrigues, Lisandro Zambenedetti, Roberto De Marca, Vincent Chan, Nei Kato, Susan Brooks and Khaled Letaief offered some warm words to the students.

Briefly, the event joined ComSoc students and experienced members who spent joyful and meaningful networking moments, which are the core reasons why members stay and be part of IEEE community.

If you are a ComSoc YP member and are interested in what the YP committee is up to, send us a note to comsocYP@comsoc.org! If you are not a ComSoc member, check here for all the benefits and join us today.

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LED EXPO/*Continued from page 3*

or an industrial standard was announced. Most audiences agree that LiFi is still experiencing a silent mutation and is being unnaturally promoted. Of course, misconceptions about those ambiguous stories are following continuously.

Finally on the positive side, an animation was created for our talk showing unlimited LiFi (replacing WiFi). It could be built only when there is no concern about the high cost and complicated technology behind it, because it is imagined only for James Bond or a SciFi movie!

The full presentation and the white paper are available for free at the Thai IEEE ComSoc & ECTI web site in order to promote VLC into the LED niche market, and also to shield our society from related fake news.

"Visible light spectrum is what humans can see, but some invisible stories behind LiFi have misled our society for almost a decade"

ARTIFICIAL INTELLIGENCE/*Continued from page 3*

Technical Evangelist Manager, South East Asia from Microsoft, presented how to transform business with AI in the cloud.

Machine Learning has been a top business priority for several years, Nikolay Novozhilov, Head of Digital Products from NTUC Link, discussed what are the lessons learned that would make ML projects more valuable to customers. Prof. Uno Takeaki, Principle of the Informatics Research Division/Director, National Institute of Informatics (NII) from Japan, highlighted the important rules of interpretability and how to analyze data using AI from a business standpoint.

Other prominent speakers included Dr. Su Yi, Director of the Corporate Technology Management Office from SMRT; Dr. Lawrence Wee, Chief Data Scientist from Allianz; Su Lian Hye, Principal Analyst from ABI Research; Christopher Muffat, Founder and CEO from Dathena; Jack Saunders, Managing Director & Vice President, Asia-Pacific & Advisory Services from ABI Research; Prof. Daniel Seng, Associate Professor/Director, LLM Programme in Intellectual Property and Technology Law & Information Technology from Faculty of Law, NUS; Prof. Dai Bing Tian, Director, MITB (AI), Assistant Professor from the School of Information Systems, SMU; Prof. Takako Hashimoto, Vice President, Chiba University of Commerce, Director, Institute of Economic Research; and Jace Saunders, Managing Director & Vice President, Asia-Pacific & Advisory Services, from ABI Research.

This forum successfully gathered approximately 140 participants, and the feedback from the audience was very rewarding. Participants gained insightful knowledge from the inspirational presentation by the C-suite speakers.