

# IEEE COMSOC LAHORE SECTION

Kashif Bashir, Chair

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## ADVISOR OF IEEE COMSOC LAHORE SECTION

Prof. Dr. Amjad Hussain,  
Chair IEEE Lahore Section



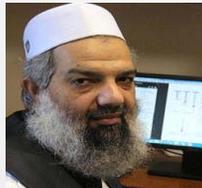
Prof. Dr. Waqar Mahmood  
Director KICS UET Lahore



Prof. Dr. Bhawani Shanker  
Chair IEEE Karachi Section



Prof. Dr. Tariq Jadoon  
HOD EE LUMS Lahore



## COMMITTEE OF IEEE COMSOC LAHORE SECTION

Dr. Yasir Saleem, UET, Pak



Shahid Zulfiqar, UET, Pak



Usman Munawar, UET, Pak



Muhammad Hamza  
Ihtisham, PU, Pak



CHAIR MESSAGE:



*Mr. Kashif Bashir*

*"I feel honored to serve humanity in field of communication through IEEE COMSOC Lahore Section. I believe that IEEE should promote technical event as well as build industry–academia relation. I will try my best to give maximum benefits to students from IEEE COMSOC Lahore Section. "*

# CONTENT

- Events in 2017
- World Telecom Day 2017
- COMSOC Summer School 2017
- Awards and Publications
- Future Directions

# LIST OF EVENTS/ACTIVITIES IN 2017



1. IEEE Orientation at Bahria University Lahore (9 Jan 2017)
2. IEEE UET Award Celebration (Best student Branch 2016)(26 Jan 2017)
3. IEEE Lahore Section 1<sup>st</sup> executive meeting (27 Jan 2017)
4. IEEE Orientation at UET Lahore (13 Feb 2017)
5. IEEE Teacher in Service Program (TISP) MOU Signing of ComSoc Summer School (16 Feb 2017)
6. Seminar on Telecommunication and Future Technologies (28 Feb 2017)
7. COMSOC Lahore Section Meeting (14 March 2017)
8. Technical Visit to Punjab Safe City Authority (26 April 2017)
9. IEEE Lahore Section Meeting (5<sup>th</sup> May 2017)
10. World Telecom Day (16<sup>th</sup> May 2017)
11. Asia Pacific IEEE COMSOC Summer School (11-14 July 2017)
12. IEEE Lahore Section Executive Meeting (28 Sept 2017)
13. IEEE PSYWC' 17 Technical Track 4 speakers(13-15 Oct 2017)
14. Technical Visit to PTCL Data Center (14 Oct 2017)
15. All Pakistan IEEE Section Meetings (13 Oct 2017)

# COMSOC MEETINGS 2017



1. IEEE UET Award Celebration Meeting (26 Jan 2017)
2. IEEE Lahore Section 1<sup>st</sup> executive meeting (27 Jan 2017)
3. COMSOC Lahore Section Meeting (14<sup>th</sup> March 2017)
4. IEEE Lahore Section Meeting (5<sup>th</sup> May 2017)
5. IEEE Lahore Section Meeting (20 June 2017)
6. IEEE Lahore Section Executive Meeting (28 Sept 2017)
7. All Pakistan IEEE Meeting Islamabad, Lahore, Karachi at Psywc' 17 (13 October, 2017)

# EVENTS HIGHLIGHTS



# MEETING HIGHLIGHTS



1<sup>st</sup> IEEE LAHORE SECTION EXECUTIVE COMMITTEE MEETING 2017  
27<sup>th</sup> January, 2017 | FAST – NU Lahore, Pakistan



# IEEE COMSOC CONDUCTS A WORKSHOP ON TISP (TEACHER IN SERVICE PROGRAM) 16 FEB 2017

- COMSOC held a workshop titled 'TISP (Teacher in Service Program)' on 16<sup>th</sup> February 2017  
TEVTA Teachers
- Speaker
- Dr Ghalib Shah give workshop on IOT
- Mr Fawad and Tayyeb give workshop on BTS  
and BSC 6000
- Mr. Rizwan's give workshop on the topic of  
Autonomous Robots with Artificial Intelligence.
- Technical Tour to Huawei telecom and IT  
Center



## SEMINAR ON TELECOMMUNICATION AND FUTURE TECHNOLOGIES DELIVERED TO COMSATS SAHIWAL ON 28<sup>TH</sup> FEBRUARY 2017

- welcome note presented by Mr. Kashif Bashir, HUTIC Manager UET Lahore and Chair IEEE COMSOC Lahore section
- A comprehensive session on the topics of 2G, 3G, 4G and 5G was presented by HUTIC UET Lahore's official Mr. Tayyab. IEEE COMSOC International books were distributed among the students who excelled in their fields
- A presentation on Internet of Things and its future opportunities was delivered by Ms. Maham



# WORLD TELECOM DAY 16 MAY 2017

1. Chief Guest of the occasion Mr. Edward Zhang, Vice President of Huawei Enterprise Wireless Solution. Top Industry Partners join the celebration.
2. Prof. Dr. Amjad Hussain Director Fast NU discussed on technology enhancements and communication development.
3. Mr. Javed Aslam, Executive Vice President Technical PTCL ,How PTCL connects us to the world.
4. Director KICS, Prof. Waqar Mahmood too talked about the importance of Big Data.
5. Mr. Sajjad Kirmani, CEO, Infogistic, revealed his views on legacy systems, advancement in technology, Big Data, cloud computing and telecom explosions in Pakistan.
6. Mr Fysal Gill, Senior Director, Speed Cast, Technology and Satellite Systems.
7. Mr. Moeez Ahmad Faizi and Deputy Chief, Telecom Punjab Safe City.
8. Mr. Kashif Bashir, IEEE ComSoc Lahore Section Chair, elaborated the Big Data impacts on the masses and told the panel about conducting more future events of these kinds



# ASIA PACIFIC IEEE COMSOC SUMMER SCHOOL 2017

(11<sup>TH</sup> -14<sup>TH</sup> JULY 2017)



# IEEE COMSOC Summer School Summary 26-29 July 2016

Number of researcher Participant: 35

Speakers: 18

I. International: 6 (USA)

II. National: 12 (LUMS, FAST, HITEC, COMSAT, Huawei, UET Lahore)

4 Days Event

Jointly organized by **Punjab University & KICS UET Lahore**

Event is featured in Teletimes international, Asian Telegraph, National newspapers. IEEE Communication Magazine



# MOU SIGNING OF ASIA PACIFIC IEEE **ComSoc**<sup>™</sup> Communication Society لاہور | Lahore COMSOC SUMMMER SCHOOL 2017



Parties: UET Lahroe, FAST NU Lahore, IEEE COMSOC and KICS UET

# DAY 1



Sr. No	Time* (Hrs)	Title	Presenter Name	Affiliations
1	11:45-12:30	A Technological View of Internet Censorship Research	Prof Dr. Zartash Uzmi	LUMS
2	12 30-01 00	USAID Full Bright Scholarships	Ms Asma	USA Education Service
<b>Lunch Break [1300-1400] Hrs</b>				
3	1400-1500	An Overview of Core Smart Grid Communication Technologies	Dr. Sobia Baig	COMSATS Lahore
4	1500-1600	Internet of Things and Its Enabling Technology	Dr. Ghalib Shah	UET Lahore
<b>Lahore Tour</b>				

# DAY 2

Sr. No	Time* (Hrs)	Title	Presenter Name	Affiliations
5	10:00-13:00	How to use Matlab to build a real-time receiver for commercial FM radio broadcast using an RTL software-defined radio (RTL-SDR)	Dr. Momin Uppal	LUMS Lahore
<b>Lunch Break [1300-1400] Hrs</b>				
6	1400-1500	Green Internet of Things - An Energy Harvesting Perspectiv	Dr. Faisal K. Shaikh	MUET Jamshoro
7	1500-1600	Polar Codes: An Introduction	Dr. Ubaid ullah Fiaz	UET Lahore
<b>Technical Visit to Punjab Safe City Authority [1600-17800] Hrs</b>				

# DAY 3



Sr. No	Time* (Hrs)	Title	Presenter Name	Affiliations
8	10:00-11:15	Shared Spectrum Access: Challenges and opportunities for the operators in 5G	Dr. M. Majid Butt	University of Dublin
9	11 15-12 30	An oversampled rate converter using sigma delta noise shaping	Dr. Hussain Mahdi	University Kebangsaan Malaysia
10	12 30-13 00	Paper/poster presentation	Researchers	Different Universities
<b>Lunch Break [1300-1400] Hrs</b>				
11	1400-1500	Industry Research Talk	Mr. He Gang	Huawei Technologies
12	1500-1600	Wearable Wireless Networks – From Theory to Practice	Dr. Muhammad Mahtab Alam	Tallinn University of Technology, Estonia
<b>13. (1600-1700) Panel Discussion " How to Elevate Research in Pakistan"</b>				
<b>Dinner and closing Ceremony</b>				

# DAY 4

Sr. No	Time* (Hrs)	Title	Presenter Name	Affiliations
14	09:30-10:30	Scholarship Opportunities	Dr. Waqar Baig	FAST NU Faisalabad
15	10:30-11:30	Wireless acoustic sensor network	Dr. Muhammad Tahir	UET Lahore
16	11:30-13:00	Paving the Way Towards 5G Wireless Communication Networks	Dr. Mohamed-Slim Alouini	King Abdullah University of Science and Technology (KAUST)
<b>Jumma Prayer Break</b>				
<b>Farewell Lunch and Certificate Distribution ceremony</b>				

# DAY 1 HIGHLIGHTS 11-14 JULY 2017

- **A Technological View of Internet Censorship Research**  
(Prof Dr. Zartash Uzmi, LUMS Lahore)
- *USAID Full Bright Scholarships*
- **An Overview of Core Smart Grid Communication Technologies**  
(Dr. Sobia Baig, COMSATS Lahore)
- **Internet of Things and Its Enabling Technology**  
(Dr. Ghalib Asad Ullah Shah, KICS Lahore)



# DAY 2 HIGHLIGHTS 11-14 JULY 2017

- **How to use Matlab to build a real-time receiver for commercial FM radio broadcast using an RTL software-defined radio (RTL-SDR)**  
(Dr. Momin Uppal, LUMS Lahore)
- **Green Internet of Things – An Energy Harvesting Perspective**  
(Dr. Faisal K. Shaikh, MUET Jamshoro)
- **Polar Codes: An Introduction**  
(Dr. Ubaid ullah Fiaz) UET Lahore



# TECHNICAL VISIT TO PUNJAB SAFE CITY PROJECT HQ



# DAY 3 HIGHLIGHTS 11-14 JULY

- **Shared Spectrum Access: Challenges and opportunities for the operators in 5G networks**  
(Dr. M. Majid Butt )  
University of Dublin
- **An oversampled rate converter using sigma delta noise shaping**  
(Dr. Hussain Mahdi)  
University Kebangsaan Malaysia
- **Industry Research Talk**  
(Mr. He Gang)
- **Wearable Wireless Networks – From Theory to Practice**  
(Dr. Muhammad Mahtab Alam) Tallinn University of Technology, Estonia



# DAY 3 PAPER/POSTER PRESENTATION



# DAY 4 HIGHLIGHTS

## 11-14 JULY 2017

- Seminar 11: Scholarship Opportunities
- Seminar 12: Wireless Acoustic Sensor Network
- Seminar 13: Paving the Way Towards 5G Wireless Communication Networks



# COMSOC SUMMER SCHOOL 2017 SUMMARY

- Number of Researcher Participant: **65**
- Speakers: **14**
  - I. International: China, Saudi Arabia, Estonia, Dublin and Malaysia
  - II. National: **9** ( LUMS, COMSAT Lahore, UET Lahore, Mehran University Jamshoro)
    - **2 Trips** : Lahore Tour and Punjab Safe City Authority
    - Jointly organized by **FAST National University & KICS UET Lahore**
- And **4** Days of Excitement.

TEAM WORK ALWAYS WINS 😊



# IEEE COMSOC TRACK AT PSYWC 2017 ON 13-15 OCTOBER 2017

IEEE COMSOC Lahore Section is one of the most active technical chapters in Lahore Section. This year on IEEE all Pakistan student young professional we congress 2017 on 13-15 October 2017, COMSOC has conducted four sessions. These are the following details

- 1) Software Define WAN | Mr. Hassan Hafeez Khan  
CEO Techglobal
- 2) How to organize IEEE Summer Schools & its benefits  
| Mr.Kashif Bashir Chair IEEE Comsoc Lahore  
Section
- 3) Future of Pakistan Telecom According to PTA | Dr.  
Ali Hammad Akbar (PhD. Ajou University) UET  
Lahore.
- 4) Error correcting codes for 5G | Dr. Ubaid ullah Fiaz,  
UET Lahore (PhD. Georgia Institute of Technology,  
Georgia USA)



# COMSOC ORGANIZE A TECHNICAL TOUR TO PTCL DATA CENTER LAHORE ON 14 OCTOBER 2017



COMSOC also organize a technical tour to PTCL data center Lahore. PTCL technical team briefed about the operational instruction of the facility. Students also visited various parts of center including network, power & server parts. HR team also give presentation of professional career building.



# OUT STANDING TECHNICAL CHAPTER AWARD BY IEEE LAHORE SECTION OUT OF 6 TECHNICAL CHAPTER FOR YEAR 2016



AWARD RECEIVED  
ON 7TH JANUARY  
2017

# PUBLICATIONS IN IEEE COMMUNICATIONS MAGAZINE/GCN 2016-17

## CHAPTER REPORT

### IEEE ComSoc Lahore Section Celebrates World Telecom Day 2017 in Pakistan

By Kashif Bashir, Chair, IEEE ComSoc Lahore Section, Pakistan

IEEE Communication Society Lahore Section and KICS-UIET organized World Telecommunication Day (WTD) on 16 May 2017. The event was held at Seminar Hall at the University of Engineering and Technology Lahore, embraced by many high-ranking officials and experts from academia and industry. The event, which had the theme "Big Data for Big Impact," was attended by: Mr. Kashif Bashir, IEEE ComSoc Lahore Section Chair, Edwan Zhang, Vice President of Huawei Technologies China, Mr. Javed Aslam, EVP Technical PTCL, Dr. Anjad Hussain, Director, Fast University, Mr. Sajjad Kinnani, CEO, InfoLogic, Mr. Faisal Gil, Head SpeedCase (Central & South Asia), Mr. Moser Ahmad Fazi, Director KICS, Mr. Moser Ahmad Fazi, and the Deputy Chief, Telecom Punjab Safe City Authority. The purpose of WTD was to highlight the importance of communication in our lives.

The event began with a video message by Prof. Dr. Vincenzo Piuri, who is a full professor at the University of Milan, Italy. He emphasized the importance of Big Data in today's world and thanked the organizers for organizing the World Telecom Day 2017 at KICS UIET Lahore.

The chief guest of the occasion, Edwan Zhang, Vice President of Huawei Enterprise Wireless Solutions, spoke about the strong friendship between Pakistan and China and how beneficial it has been since the outset in terms of business development between the two countries. He also spoke about ICT solutions, and Huawei Pakistan's functions. Mr. Zhang then presented an overview of the Safe City Project Lahore, and the Smart City Services Development and IoT Services.

Javed Aslam, Executive Vice President Technical PTCL,



Edwan Zhang, left, with attendees.

expressed his views on "How PTCL Connects us to the World." Anjad Hussain, Chair of the IEEE Lahore Section and Director of FAST, presented his views on technology, enhancements and communication development.

Faisal Gil, Head SpeedCase (Central & South Asia), talked about topics such as GPS technology and satellite systems. Sajjad Kinnani, CEO InfoLogic, discussed his views on legacy systems, advancements in technology, cloud computing, and the explosive growth of telecom in Pakistan.

Moser Ahmad Fazi, Deputy Chief of Telecommunication, Punjab Safe City Authority, discussed the safe city projects and speed connectivity.

Prof. Faisal Ahmad Khalid, Vice Chancellor of UIET Lahore, thanked the guests and stressed the importance of technology in today's world. He also made special mention of Huawei's collaborations with UIET.

Prof. Waqar Mahmood, Director of KICS, also spoke about the importance of Big Data and gave a presentation on the IEEE and the KICS Labs.

The event concluded with the distribution of souvenirs among the guests.

A joint panel discussion followed in which the distinguished guests and high-ranking officials of the Akhbararam Institute discussed their views on the impact of Big Data. Kashif Bashir, IEEE ComSoc Chair and Manager at HITEC, elaborated on Big Data's impacts on the masses and told the panel about conducting more events like these in the future. He also thanked all the guests and members of IEEE who attended this event.



Edwan Zhang, left, with attendees.

## MEMBER AND GLOBAL ACTIVITIES

### ITU/APNIC Internet and IPv6 Infrastructure Security Program, May 2017, Nonthaburi, Thailand

By Leo Hwa Chiang and Ewell Tan, IEEE APO Office, Singapore

On behalf of IEEE ComSoc, the Director of IEEE Asia Business Development, Leo Hwa Chiang, jointly organized a one-week "Internet and IPv6 Infrastructure Security Program" with the International Telecommunication Union (ITU), the Asia Pacific Network Information Centre (APNIC), and the Ministry of Digital Economy and Society (Thailand). This training program was held at the TOT Academy, Nonthaburi, Thailand on the 8-13 May 2017.

With the explosive growth of smart IT devices and the increasing popularity of cloud computing and the Internet of Things (IoT), IPv6 is becoming a critical innovation for future Internet communications. In view of the growing demand, this program is essential to the policy makers, regulators, telecom operators



The training program at TOT Academy.

and enterprise network administrators to build their skills and knowledge regarding the deployment and management of IPv6 network infrastructure, especially as it relates to security.

This program was well attended by 40 participants from 18 countries, including Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, India, Indonesia, Iran, Laos, Malaysia, Mongolia, Pakistan, Philippines, Qatar, Sri Lanka, Sudan, Thailand and Vietnam. This intensive training program was conducted by Philip Smith.

(Continued on Newstrack page 3)

## MEMBERSHIP REPORT

### Asia-Pacific IEEE ComSoc Summer School 2017 in Lahore, Pakistan

By Kashif Bashir, Chair IEEE ComSoc Lahore Section Pakistan

The IEEE ComSoc Lahore Section, in collaboration with the Al-Khwarazmi Institute of Computer Science (KICS), University of Engineering and Technology, Lahore and Fast National University, Lahore, organized the four-day "Asia-Pacific IEEE ComSoc Summer School 2017."

Other collaborators are HEC Pakistan, IEEE UET and IEEE FAST. It was very inspirational for all who attended, particularly for the young engineers in Pakistan who very actively participated in the event. The summer school program was designed for new graduates, M.S. and Ph.D. students so they could enhance their knowledge and research aptitudes. The IEEE ComSoc Summer School has its historical background as well, as it first started two years ago in 2015 in Trento, Italy.

The opening ceremony of the IEEE ComSoc Summer School 2017 took place at FAST-NU Lahore from 11-16 July 2017.

The event began with a video message by Prof. Dr. Vincenzo Piuri, who is a full professor at the University of Milan, Italy. Dr. Piuri said it was his honor to address the participants of the IEEE ComSoc Summer School 2017. He mentioned that the event was a unique opportunity to learn new trends in communication technology, which it provided a sharing experience for all. He mentioned that such events also allowed all of us to improve and facilitate the process. He revealed that technology implementation was becoming not only Pakistan but also other countries. Dr. Piuri in the end congratulated the IEEE ComSoc Lahore Section, KICS-UIET and FAST-NU for conducting this event in Pakistan.

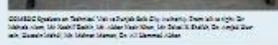
Prof. Faisal Ahmad Khalid, Vice Chancellor of the University of Engineering and Technology, Lahore, was the honorable



Dr. Vincenzo Piuri, left, with IEEE ComSoc Lahore Section Chair Kashif Bashir, Chair IEEE ComSoc Lahore Section, Dr. Sajjad Kinnani, CEO InfoLogic, and Dr. Anjad Hussain, Director FAST University.



Dr. Vincenzo Piuri, left, with IEEE ComSoc Lahore Section Chair Kashif Bashir, Chair IEEE ComSoc Lahore Section, Dr. Sajjad Kinnani, CEO InfoLogic, and Dr. Anjad Hussain, Director FAST University.



Dr. Vincenzo Piuri, left, with IEEE ComSoc Lahore Section Chair Kashif Bashir, Chair IEEE ComSoc Lahore Section, Dr. Sajjad Kinnani, CEO InfoLogic, and Dr. Anjad Hussain, Director FAST University.



Dr. Vincenzo Piuri, left, with IEEE ComSoc Lahore Section Chair Kashif Bashir, Chair IEEE ComSoc Lahore Section, Dr. Sajjad Kinnani, CEO InfoLogic, and Dr. Anjad Hussain, Director FAST University.

chief guest. Prof. Khalid said that IEEE ComSoc was a good initiative and would surely bring lucrative results. He also mentioned that it would be beneficial for both industry and academia. He appreciated the technological advancements in the country and emphasized the efforts and contributions of our students who were active participants in many world and smart technologies. Other guests included Prof. Dr. Waqar Mahmood, Director KICS UET and Editor, IEEE ComSoc, Prof. Dr. Mian-Talib-ur-Rahman, Director, CC University, Lahore, Dr. Saqib-Usman-Ahmed, and Dr. Tariq Jadoon, LUMS, and the Chair of the IEEE ComSoc Lahore Section, Mr. Kashif Bashir.

This year the IEEE ComSoc Summer School 2017 attracted 45 research participants from nine universities in Pakistan. There were 16 speakers, including five from abroad and nine from national universities. International speakers were from China, Saudi Arabia, Mexico, India and Italy. National speakers were from LUMS, COMSATS Lahore, UET Lahore and Islamia University, Islamabad.

A number of talks coupled with speeches by the guests were given at this year's summer school. Featured speakers were Dr.

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## CHAPTER REPORT

### The First IEEE ComSoc Summer School Program in Pakistan

By Kashif Bashir, IEEE ComSoc Lahore Chapter Chair, and Waqar Mahmood,

The IEEE ComSoc Lahore Section, in collaboration with IEEE UET Lahore, the Al-Khwarazmi Institute of Computer Science (KICS), UET & IEEE Punjab University, organized the four-day "IEEE ComSoc Summer School Program 2016 Pakistan". This ComSoc Summer School is the second such global event following the 2015 event in Trento, Italy.

KICS UET Lahore and Punjab University jointly launched a four-day IEEE ComSoc Summer School 2016 that was held 26-29 July 2016. It was a very interesting and informative event targeted specifically to engineers and M.S./Ph.D. students. A total of 169 applications were received, and 30 students were chosen. The participants attending this event were from 21 notable universities in Pakistan.

The event featured invited talks delivered by the luminary speakers from universities spread across Pakistan. On the first day, the opening speeches were delivered by the Director of KICS, Prof. Dr. Waqar Mahmood, Principal CEET PU, Prof. Dr. Rafique Ahmad, Director of FAST University, Prof. Dr. Anjad Hussain, and Mr. Kashif Bashir, Chair of the IEEE ComSoc Lahore Section.

Each talk at the event was well structured and delivered with gusto. The best feature of these talks was that they delivered novel ideas to inspire and ignite innovation. The talks were delivered on topics such as data center evolution, visible light communication, the Internet of things, living in the LTE Era: post-deployment emerging and practical research and development directions in LTE (4G and beyond).

A six-member delegation from the U.S. State Department also visited the IEEE ComSoc Summer School on the second day. Three members, Miss Karol Hines, Lily Parker, and Mindy McLaughlin, delivered talks on the subjects of Leadership, Project management, and Entrepreneurship.

An interesting "poster competition" was held on the second



First row Mr. Charles, Dr. Waqar Mahmood, Kashif Bashir, Usman Khan and Usman Khan.



Summer School group photo with VC UET, U.S. delegates and organizers.



Ms. Karol Hines, Dr. Waqar Mahmood, Dr. Faisal Ahmad Khalid, Dr. Rafique Ahmad and Anand Bischoff.

day of the event, with the theme "humanitarian". The projects were presented to the judges' panel, which included the U.S. delegation, VC UET Lahore Prof. Dr. Faisal Ahmad Khalid, and Director KICS UET Dr. Waqar Mahmood. The projects were well received and acknowledged by the judges. The Best Poster Winner was Syed Muhammad Rizwan, whose project was titled, "Fire Fighting Robot for Industrial Application". Usman Munawar from KICS UET was the advisor for this project.

On the third day of the event the participants were taken to visit the Huawei UET Telecom & IT Center. The talks of the day were focused on Cloud Computing & Networking, including Development of Technology Trends in IP Networks by Huawei officials Mr. Charles Wang and Mr. Usman Khan.

A social dinner and closing ceremony were held at the Staff Club in UET Lahore, where Dr. Naveed A. Malik, VC Virtual University, was the chief guest. A long list of other distinguished guests also attended the occasion. Vice Chancellor UET Prof. Dr. Faisal Ahmad Khalid, in his speech, thanked the guests and expressed appreciation for the efforts of the IEEE ComSoc Lahore Section, Punjab University, and KICS UET for conducting such a great event. After Dr. Khalid's speech, Dr. Waqar Mahmood, Director KICS, presented an overview of IEEE ComSoc Summer School 2016. The chief guest and the distinguished guests said in their speeches that these types of events should continue, as they help establish collaborations among different universities in order to promote research and development.

The distinguished guests included VC LCWU Dr. Uzma Qureshi, MD Pakistan Railways; the CEO of Siemens Enterprises; the Dean of CS & IT at Superior University; the Director of EE at HITEC, Taxila; the Director of FAST; and the Chair of the IEEE ComSoc Lahore Section. The day and the closing ceremony ended with certificates and shields distributed to the participants, speakers, and organizers of the event.

## FUTURE DIRECTIONS

- 5G Symposium
- IEEE Conference Co-sponsored by COMSOC
- IEEE COMSOC SUMMER SCHOOL 2018
- World Telecom Day 2018