



# IEEE Seoul Section November Report 2018



IEEE TENCON 2018 Theme Banner  
October 28-31 Jeju Ramada Plaza Hotel, Jeju, Korea

# IEEE Seoul Section November Report 2018

## PART A - SECTION SUMMARY

### A.1 Executive Summary

The IEEE Seoul Section is thrilled to report that we had a wonderful and fruitful year in 2018 thanks to the launching of IEEE TENCON 2018 in October 28-31, Jeju, Korea. After this international event, 2018 will still be a busy year with the following activities:

- R10's membership development strategies have been paid full scale attentions ranging from student branch activities to member recognitions. The Seoul Section achieved an outstanding member recruitment and retention performance as recognized by the IEEE Member Recruitment and Recovery Committee. Compared to 2017, the section obtained 8.6 % increase in total active members, almost in every category. The section is going to prepare both a retention program for active members and a promoting program for members and senior members.
- To keep all the members technically current and abreast of new and changing technologies, the themes of the IEEE TENCON 2018 had been selected according to IEEE's new initiatives for emerging technologies. The themes became "Intelligence Outbreak" for TENCON 2018. Along with classical and special topics, 8 parallel professional sessions are also currently under organization.
- To facilitate professional networking, IEEE Seoul Section assisted to form new technical chapters and invested efforts to invite the chairs to ExCom meetings, to national council meetings, and to the annual Higher Membership Promotion Committee meeting. Now there are 40 technical chapters, including 3 joint chapters, and three affiliation groups, YP, WIE and LM, who are going through team building.
- To provide more volunteer leadership opportunities, most of the organizing committees of the TENCON 2018, and Student Paper Contest 2018 were appointed from the IEEE Seoul Section's officers, members, and student members. The chapter chairs and student branch officers are encouraged to launch and host local activities and meetings. Those officers were recognized and appreciated in the annual meeting.
- To keep growing with IEEE's continuing education benefits, especially for the ones in industrial sectors, industrial sessions and a standardization session have been launched during IEEE TENCON 2018. All the 6 plenary speakers were also invited from industrial sectors including the IEEE President and CEO James Jefferies. A pre-TENCON event held in Seoul on October 26-27 also included an industrial visit to Samsung D'light show room near Gangnam Station.
- The student activity in Seoul Section can be highlighted by the Student Paper Contest 2018 to be held in Nov. 24, 2018 in Hongik University, in which 37 papers are to be presented and evaluated for prizes. Furthermore, the student exchange programs will bring 4 participants from Japan and sent one student (Last year's Student paper Contest grand Prize Winner, Taehyun Kim of Korea University) to Tokyo Section's TOWERS event. The travel funds for the students were provided by the participating sections as part of prizes.

- The Student Branch at Hongik University will host an art festival combined with technology called AAT (Art attracts technology) in November 23<sup>rd</sup> ~ 24<sup>th</sup> at Hongik University, Seoul. More than 23 teams participated and 9 teams will exhibit their project works. More than 200 guests are expected to enjoy the two-day VR and AR art show.
- IEEE/IEIE Joint Outstanding Young Engineer Award 2018 was given to Professor Changho Seo of KAIST for his outstanding contributions to communication system, distributed storage system, and artificial intelligence studies.
- The General Assembly of IEEE Seoul Section will be held in 15 December after the first IEEE SYW Korea Congress.
- The 43<sup>rd</sup> HMPC 2018 Dinner Meeting will be held on December 28<sup>th</sup> (Friday) at Westin Chosun Hotel to recruit non-IEEE members and to promote members to higher grades. The event will proceed for two hours with an award ceremony, special lectures and music entertainment along with dinner, followed by informal gatherings.
- IEEE Seoul Section witnessed one 50 years loyal members for the third time in the section history. He will be recognized at the HMPC and appreciated with plaques, badges, and certificates.
- Section Executive Committee Member List

Officer	이름	Name	Affiliation
Honorary HMPC Chair	안수길	Sou Guil Ann	서울대 명예교수
LMAG Chair	차균현	Kyun Hyon Tchah	고려대 명예교수
Honorary Milestone Chair	서정욱	Jung Uck Seo	무역협회 명예고문
R10 Director	전국진	Kuk Jin Chun	서울대 교수
Korea Council Chair	최준균	Junkyun Choi	카이스트교수
Korea Council Vice Chair	정창성	Chang Sung Jeong	고려대 교수
Auditor	이철희	Chulhee Lee	연세대 교수
Awards/Milestone	박병국	Byung Gook Park	서울대 교수
Nomination/History Chair	정대권	Dae Gwon Jeong	항공대 교수
Chair	이종창	Jong Chang Yi	홍익대 교수
Vice-Chair	최천원	Cheon Won Choi	단국대 교수
Vice-Chair	김창현	Changhyun Kim	POSTECH 교수
Vice-Chair	김달수	Dal-soo Kim	TLI 사장
Vice-Chair	이채우	Chaewoo Lee	아주대 교수
Vice-Chair	이상미	Sang Mi Lee	IITP 책임
Secretary/SAMEE	이상현	Sanghyun Lee	고려대교수
Treasurer	박영준	Yongjun Park	한양대 교수
Web Coordinator	황진영	Jinyoung Hwang	항공대 교수
Newsletter Editor	한기진	Kijin Han	동국대 교수
Membership Dev. & Promotion	황진권	Jin Kwon Hwang	우석대 교수

Membership Dev. & Promotion	허 건	Kyeon Hur	연세대 교수
Education Activities Chair	장길수	Gilsoo Jang	고려대 교수
Professional Activities Coordinator	최세완	Sewan Choi	서울과기대 교수
Technical Activities Coordinator	윤성로	Sungroh Yoon	서울대 교수
Technical Activities Coordinator	윤홍일	Hongil Yoon	연세대 교수
Industrial Relations Coordinator	이혁재	Hyuk-Jae Lee	서울대 교수
Industrial Relations Coordinator	홍규식	kyushik Hong	서울대교수
Chapter Coordinator	이인규	Inkyu Lee	고려대 교수
WIE AG chair	심정연	Jungyeon Shim	강남대 교수
Student Activities Chair	이동명	Dongmyoung Lee	홍익대 교수
Student Branch Coordinator	김소영	Soyoung Kim	성균관대 교수
Young Professional AG Chair	노승문	Albert No	홍익대 교수
HMPC Coordinator	한정희	Jung Hee Han	항공대 교수
HMPC Coordinator	신승중	Seung Jung Shin	한세대 교수
HMPC Coordinator	김철환	Chul-Hwan Kim	성균관대 교수

## A.2 Financial Report

The IEEE Seoul Section's financial condition has continued to maintain a good balance in the year of 2018. The year 2018 observed that the contribution part exceeded IEEE support by more than twice mainly due to the TENCON 2018 registration fees and the local government support. Most of the expenditure was allocated for meeting events and online/offline publications for the TENCON Organization Committee and TPC, Student Paper Contest, HMPC, and Student Branch events. All the details of transactions are described and reported through the IEEE NetSuite reporting.

### 1. Income

Item	Amount (Won)
IEEE Support	19,520,137
Contribution	36,300,000
Interest	10,071
Total	55,830,208

### 2. Expenditure

Item	Amount (Won)
Meetings and Social Events	4,636,832
Student Activities	0
Chapter Support	0
Other Management & General Expenses	0
Total	4,636,832

### 3. Total Net Worth

Item	Amount (Won)	
Balance beginning of the year 2018.05	15,820,248	A
Total Income of the year 2018.05	55,830,208	B
Total Expenditure of the year 2018.05	4,636,832	C
Total Net Increases	51,193,376	B-C
Balance end of the year 2018	67,013,624	A+B-C

### 4. Other Special Financial Activities

Item	Amount (Won)	Net (Won)
TENCON 2018 Revnue (tentative)	485,452,260	
TENCON 2018 Expenses (tentative)	0	355,400,000

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

Compared to 2017, the section obtained 8.6% increase in total active members, almost in every category except associate members in 2018.

- Total number of members

Grade	Associate M.	Fellow	Grad. SM	Hon. M	Life Fell.	Life M	Life Senior	Mem.	Senior M	Student M	Total
2017.10	69	28	897	1	9	8	9	1581	298	257	<b>3,157</b>
2018.02	83	25	1,031	1	10	9	9	1,693	318	340	<b>3,526</b>
2018.05	56	32	742	1	9	7	10	1,348	307	229	<b>2,837</b>
2018.11	89	33	1,096	1	11	12	13	1,692	328	300	<b>3,686</b>

- Seoul Section will maintain the membership development program in 4 directions.
  - To develop a recruit program for undergraduate and graduate students.
  - To develop a membership recruit program for industry.
  - To develop a membership elevation program for members and senior members.
  - To recognize and appreciate loyal members, new members, and volunteer services.
- 2018 Outstanding Section Membership Recruitment Performance for 3 consecutive years: 2016-2018

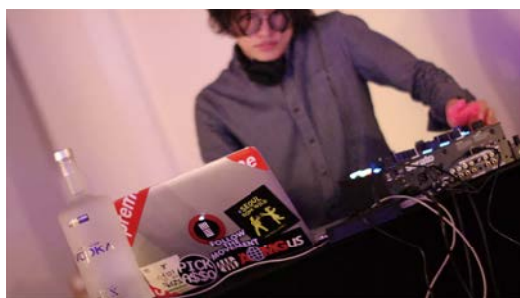


- Letter from Prof. Takako Hashimoto (IEEE MGA Membership Retention and Recruitment Committee Chair):

- I am pleased to recognize the Seoul Section for meeting its recruitment goal for the 2018 membership year. Congratulations! The membership development goals were developed based on your Section's three year performance. You are to be commended for continuing to grow IEEE membership in the Seoul Section. In recognition of this achievement, I have

attached an image that you can place in your e-mail signature and on your Section website or newsletters, which signifies your outstanding achievement for the 2018 membership year.

- The undergraduate program will be focused on seeding prospective student group circles interested in IEEE in universities in the section.
- Hongik University Student Branch won the Grand Prize at the University Idea Contest for Start-Up Company. They also received funds from Seoul City, Mapo District, and Hongik University to host an Art-Technology festival named "2018 AAT Festival-Discovery Project."



- The graduate student program will be focused on networking and envisioning by inviting world-class scholars and IEEE top leaders.



- Seoul National University Student Branch hosted a seminar by Professor Toshio Fukuda on “Multi-Scale Robotic Systems for Maintenance and Life Enhancement.” IEEE Seoul Section’s Student Representative, Jong Hyuk Lee gave a SAC report on safety checker for kindergarten students.



- In 2018, 1 members were recognized as the IEEE 50 years loyal members:



- Sunhwan Lee, Shinsung Electronics Company, President. IEEE 50 years loyalty pin ceremony during TENCON by IEEE President James Jefferies.
- Now, IEEE Seoul Section has 3 IEEE 50 years loyal members: the other two members are Prof. Souguil Ann and Former Minister Seungtaek Yang.
- They have not finished yet, but will continue to contribute to the number one professional community, IEEE.

## B.2 Chapter Activities

- IEEE Seoul Section was associated with 40 Technical Societies as shown below:

Technical Chapters	Code	Members	Chair, Affiliation
IEEE Aerospace and Electronic Systems	AES010	26	Young Kil Kwag, Korea Aerospace Univ.
IEEE Antennas and Propagation	AP003	58	Jae Hoon Choi, Hanyang Univ.
IEEE Broadcast Technology	BT002	18	Byungwoo Jeon, Sungkyoonkwan Univ.
IEEE Circuits and Systems	CAS004	227	Myung Hoon Sunwoo, Ajou Univ.
IEEE Communications	COM019	300	Sunghyun Choi, Seoul National Univ.
IEEE Computational Intelligence	CIS011	36	Byoung-Tak Zhang, Seoul National Univ.
IEEE Computer	C016	240	Chang Sung Jeong, Korea Univ.
IEEE Consumer Electronics	CE008	53	Seungwon Jung, Dongguk Univ.
IEEE Control Systems	CS023	60	Poo Gyeon Park, Postech Univ.
IEEE Council on Design Automation	CEDA044	227	Seungjoo Yoo, Seoul National univ.
IEEE Dielectrics and Electrical Insulation	DEI032	11	inactive
IEEE Education	E025	8	Eui-Sung Kang, Sunchon Univ.
IEEE Electromagnetic Compatibility	EMC027	26	inactive
IEEE Electron Devices	ED015	133	Yong Taek Hong, Seoul National Univ.
IEEE Electronics Packaging	EP021	32	Ki Jin Han, Dongguk Univ.
IEEE Engineering in Medicine and Biology	EMB018	122	inactive
IEEE Geoscience and Remote Sensing	GRS029	31	Hoonyol Lee, Kangwon Univ.
IEEE Industrial Electronics	IE013	109	Kanghyun Jo, Ulsan Univ..
IEEE Industry Applications	IA034	61	Jinwoo Ahn, Kyeongsung Univ.
IEEE Information Theory	IT012	51	Kyoungchul Yang, POSTECH
IEEE Instrumentation and Measurement	IM009	11	inactive
IEEE Intelligent Transportation Systems	ITSS038	38	Kyongsu Yi, Seoul National Univ.
IEEE Magnetics	MAG033	32	Jongil Hong, Yonsei Univ.
IEEE Microwave Theory and Techniques	MTT017	101	Jae-Sung Rieh, Korea Univ.
IEEE Nuclear and Plasma Sciences	NPS005	39	Kyung Min Kim, KIRAMS
IEEE Oceanic Engineering	OE022	10	Sunchul Yu, POSTECH
IEEE Photonics	PHO036	44	Ju Han Lee, Univ. of Seoul



<b>IEEE Power &amp; Energy</b>	PE031	146	Chul-Hwan Kim, Sungkyunkwan Univ.
IEEE Power Electronics	PEL035	90	Jaeho Choi, Chunbuk National Univ.
IEEE Professional Communication	PC026	1	inactive
IEEE Reliability	RL007	13	inactive
IEEE Robotics and Automation	RA024	121	Songwhai Oh, Seoul National Univ.
IEEE SIGHT	SIGHT	3	inactive
IEEE Signal Processing	SP001	173	Joon Won Choi, Hanyang University.
IEEE Social Implications of Technology	SIT030	2	inactive
IEEE Solid-State Circuits	SSC037	226	Yong Moon, Soongsil Univ.
IEEE Systems, Man, and Cybernetics	SMC028	48	Seong Whan Lee, Korea Univ.
IEEE Tech. and Eng. Management	TEM014	7	inactive
IEEE Ultrason., Ferroele., and Freq. Control	UFFC020	39	inactive
IEEE Vehicular Technology	VT006	95	Jun Heo, Korea Univ.
	<b>Total</b>	<b>1826</b>	

- In 2018, IEEE Blockchain Korea Group was initiated in conjunction with Seoul Section by Dean James Won-Ki Hong (POSTECH).



Letter from James Won-Ki Hong (Dean of Graduate School of IT, POSTECH)

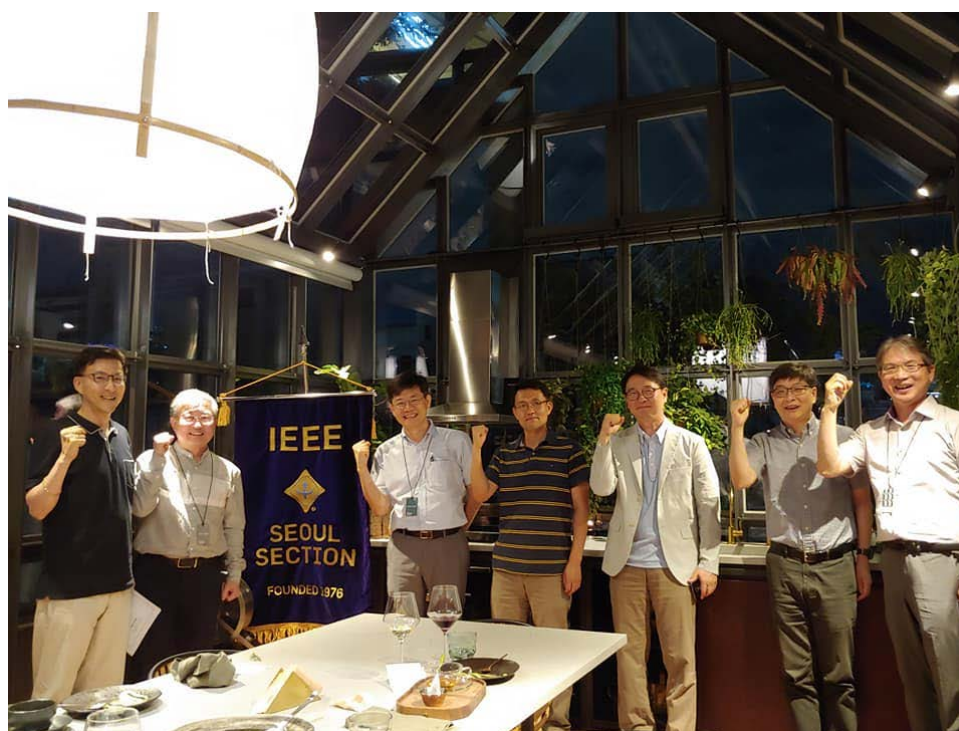
IEEE Blockchain Initiative (BCI, <https://blockchain.ieee.org/>) has been forming 'Blockchain Groups' around the world to encourage various academic, business, development activities on blockchain. I and a group of colleagues as well as students from a number of universities and blockchain companies in Korea have been preparing a blockchain group. Also, we have been preparing 2018 IEEE Blockchain Summit Korea (<http://sites.ieee.org/bcsummitkorea-2018/>), which had been held during June 7-8, 2018 in Seoul, Korea.

- In 2018, 29 chapters are in active operation. 10 chapters received incentives from R10 by completing meeting reports and financial reportings in 2018. Last year the incentives had been awarded to only 7 chapters.

<b>Technical Chapters</b>	<b>2017</b>	<b>2018</b>	<b>Total(\$)</b>
IEEE Aerospace and Electronic Systems	0	200	400
IEEE Antennas and Propagation	200	200	800
IEEE Communications	0	200	400
IEEE Control Systems	0	200	400
IEEE Council on Design Automation	275	275	1,100
IEEE Intelligent Transportation Systems	200	0	400
IEEE Microwave Theory and Techniques	200	200	800
<b>IEEE Power &amp; Energy</b>	0	200	400
IEEE Robotics and Automation	200	200	800
IEEE Signal Processing	200	200	800

IEEE Solid-State Circuits	200	0	400
IEEE Vehicular Technology	0	200	400
<b>Total(USD)</b>	1475	1875	6,700

- In 2018, Power and Energy Chapter (PE031) had two seminars and one conference. The KIEEE Power Technology Section Winter Seminar on renewable energies, HVDC system was held. 5 young researchers and 4 experts were invited for the presentation on the seminar. 69 guests and 6 IEEE members attended the seminar. The 3rd International Conference on Electric Vehicle, Smart Grid, and Information Technology brings together scientists, engineers, computer users, and students to exchange and share their experiences, new ideas, and research results about all aspects theory, applications, and tools of EV. 132 guests and 19 IEEE members attended the conference. Lastly, two speakers (Ilhan Kocar and Ulas Karaagac) were invited for the seminar, 24th International Conference on Electrical Engineering (ICEE 2018) announcement speaker invitation seminar. 26 guests and 7 IEEE members attended the seminar. Also, one international workshop (IWPI 2018) regarding Microgrid, power generation and operation is expected on October in accordance with the activity of PE031.
- IEEE Seoul Section Chapter Chair Meeting: We chat, we cook, and we eat, eat, eat. That's What I-E-E-E stands for (quote from Prof. Toshio FUKUDA).



IEEE Seoul Section Chapter Chair Meeting: Inkyu Lee, Chapter Coordinator, Dae Gwon Jeong, AE Chapter, Kyeong Min Kim, NPSS Chapter, Ho Seong Choo, AP Chapter, Ju Han Lee, Photonics Chapter, Seon Chul Yu, OES Chapter, Jong Chang Yi, Seoul Section gathered at Hyundai Card Cooking Library, Cheongdam on 6 July 2018.



IEEE Seoul Section Chapter Chair Meeting: Yong Moon, SSC Chapter Chair, Inkyu Lee, Chapter Coordinator, Jong Chang Yi, Section Chair, Young Gil Kwag, AE Chapter Chair, Ju Han Lee, Photonics Chapter Chair, Chul Hwan Kim, PES Chapter Chair, Munkyu Lee, MTT Chapter Secretary, Poo Gyeon Park, CS Chapter Chair. (from the left) gathered at The Round, Cheongdam on 12 November 2018.

### **B.3 Professional and Continuing Education Activities**

#### **B.3.1 Professional Seminars and Workshops**

IEEE Seoul Section had 3 Executive Committee Meetings and 1 IEEE MCE workshop with professional seminars by the experts in electrical engineering and related areas.

- 22 March 2018: Hanmiri, Gwanghwamun, Seoul. 12 members attending. Section vitality checklist review. Officer training. TENCON 2018 review.
- 1 June 2018: Hanmiri, Gwanghwamun, Seoul. 7 members attending. Education activity, WIE, YP, Student activities. IEEE R10 SYWL Congress participation: 5 members from Seoul Section.
- 14 June 2018: Congdu, Deoksu palace, Seoul. Past Chairs Advisory Committee meeting. 8 members attending. IEEE TENCON 2018 briefing. Life member affinity group leadership approval. IEEE R10 SYWL Congress travel fund approval.
- 4 October 2018: Seolgaon, Gwanghwamun, Seoul. 13 members attending. IEEE Day celebration. TENCON review. Officer training-Robert's rule of order by Prof. Byung Gook park. YP affinity group creation (4 September 2018, YP00417).
- IEIE-IEEE Joint Award ceremony: 28 June 2018, Jeju, Korea. 500 members attending. Awardee was Prof. Changho Seo (KAIST). Publicized on nation-wide newspapers.

#### **B.3.2 Professional Conferences**

##### **1. IEEE Region 10 (Asia Pacific) Conference TENCON 2018.**

It is our great honor to host this prestigious event in Korea. The main theme of the conference aligns with the IEEE goals and visions for advancing technology for humanity.

IEEE has witnessed technology outbreak through energy, electricity, and information technology during the last century. Now it's the beginning of the intelligence era. We believe that all IEEE members are standing in its frontier lines. So please give us a smile and let the new era develop beautifully in IEEE TENCON 2018.

The major objectives of the TENCON conference series are given as follows:

- To provide a prestigious international forum for specialist presentations and interactions in one or more areas of Electrical, Electronics, Computer and Information technology through papers, exhibitions, plenary talk, tutorials, etc;
- To contribute to the development, progress and welfare of countries in the Asia-Pacific region by disseminating technological knowledge and experience;
- To encourage the study and discussion of technology and technological applications in a broad social, political and human context;
- To polish and boost the interpersonal and professional skills of volunteers with the guidance of leaders and the renowned personalities in the respective field of Engineering & Technology.
- To enable Sections within Region 10 to develop as mature IEEE entities by accepting the responsibilities of major conference organization.

IEEE TENCON 2018 organizing committee will do best to fulfill those objectives. Here are some of the key initiatives:

- Committed to maintain reputations of the R10 flagship technical conference by organizing expert program committee and quality programs.
- Committed to provide open platforms for WIE, YP, SAC, LM, and other professional activities for all IEEE members as well as non-members.
- Committed to facilitate IEEE's vision for enhancing technology for humanity by incorporating IEEE's new initiatives.
- Committed to hospitality and friendship for all participants as members of one big community of IEEE.

The important dates and detailed program can be found at [www.tencon2018.org](http://www.tencon2018.org)

- 1<sup>st</sup> Call for Paper: November 4, 2017~ February 20, 2018
- Web site open : February 5, 2018 (Paper submission site open)
- Preview Presentation: March 4, 2018 at R10 AGM Meeting, Langkwai, Malaysia
- 2<sup>nd</sup> Call for Paper: March, 2018
- Paper Submission Deadline: May 21, 2018
- Notification of Acceptance: August 27, 2018
- Final Paper Submission Deadline: September 14, 2018
- Earlybird Registration Deadline: September 15, 2018
- Conference Date: October 28(Sun)-31(Wed), 2018

The Conference Committee Members are as following:

General Co-Chair/Executive Chair	김창현	Changhyun Kim	POSTECH 교수
General Co-Chair	이종창	Jong Chang Yi	홍익대 교수
Secretary General	이채우	Chaewoo Lee	아주대 교수
Registration	이상현	Sang Hyun Lee	고려대 교수

Treasurer	박영준	Yongjun Park	한양대 교수
Fund Raising (Industry)	홍규식	kyushik Hong	서울대학교
Publicity	윤홍일	Hongil Yoon	연세대 교수
Publication Chair	이동명	Dongmyoung Lee	홍익대 교수
Local Arrangement Chair	김경연	Kyungyun Kim	제주대학교
Local Arrangement Chair	정대권	Dae Gwon Jeong	항공대 교수
TPC Chair	최천원	Cheon Won Choi	단국대 교수
Keynote Session	이인규	Inkyu Lee	고려대 교수
Industrial Relations	이혁재	Hyuk-Jae Lee	서울대 교수
Exhibition	유선철	Sunchul Yu	POSTECH 교수
Standard Sessions	이형호	Hyeong Ho Lee	ETRI
Professional Sessions	김창현	Changhyun Kim	POSTECH
W.Y.S.L. Coordinator (WIE)	심정연	JeongYon Shim	강남대 교수
W.Y.S.L. Coordinator (YP)	노승문	Albert No	홍익대 교수
W.Y.S.L. Coordinator (SB)	김소영	Soyoung Kim	성균관대 교수
W.Y.S.L. Coordinator (LM)	차균현	Kyun Hyon Tchah	고려대 교수

### Steering Committee

Honorary General Chair	Kukjin	CHUN	Seoul National Univ.
ex-R10 Director	Ramakrishna	KAPPAGANTU	IEEE BOD
R10 Director-elect	Akinori	NISHIHARA	Tokyo Inst. Tech.
China Council Chair	Qiuqi	RUAN	BJTU
Japan Council Chair	Toshitaka	TSUDA	Waseda University
R10 Tech. Act. Vice Chair	Takao	ONOYE	Osaka University
R10 Secretary	Byung Gook	PARK	Seoul National Univ.

### International Advisory Committee

Chair	최문균	Munkyoon Choi	KAIST
Vice Chair	정창성	Chang Sung Jeong	Korea University
Secretary	정대권	Dae Gwon Jeong	Korea Aerospace University
Kanpur Section Chair	S N	S N Singh	Univ of Technology Gorakhpur
Tokyo Section Chair	Iwao	Iwao SASASE	Keio University
Daejeon Section Chair	최용석	Yong-Seok Choi	ETRI
Gwangju Section Chair	호요성	Yo Sung Ho	GIST
Changwon Section Chair	이도훈	Do Hoon Lee	Pusan National University
Daegu Section Chair	김지현	Jee Hyun Kim	Kyungbuk National University
MD Coordinator		Takako Hashimoto	Chiba University of Commerce
MD Coordinator		Michael Ong	I2R, Singapore
YP		Hussain Madi	Univ. Kebangsaan Malaysia



ECIM		Kurnianingsih	Indonesia
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### TPC Committee & Track Chairs

TPC Chair	최천원	Cheon Won Choi	단국대 교수
Plenary, Special Session	이인규	Inkyu Lee	고려대 교수
Special Session	윤성로	Sungroh Yoon	서울대 교수
Publication Chair	이동명	Dongmyoung Lee	홍익대 교수
Special Session	황진영	Jinyoung Hwang	항공대 교수
Tutorial Session	윤홍일	Hongil Yoon	연세대 교수
Industrial Session	이혁재	Hyuk-Jae Lee	서울대 교수

### Topics and Special Topics

(Topics for regular sessions)

Antenna and Microwave, Biomedical Engineering, Circuits and Systems,  
Communications and Networks, Computational Intelligence, Computer Systems  
Computing Technologies, Devices, Materials and Processing, Emerging Technologies  
Internet of Things, Power and Energy, Robotics and Control Systems,  
Sensor Technologies and Applications, Signal and Image Processing

(Topics for special sessions)

Quantum Communications, Edge Computing,  
Oxide Semiconductor Based Electronic Devices  
Micro Wave Technologies for Sensing and Communications  
Smart Wearable Technologies for Healthcare, Virtual Reality, Mobile Devices and Safety  
5G and Beyond, Humanitarian Technologies, Communications Security  
Applications of Machine Learning in Science and Engineering  
Nanostructured Semiconductors and Their Applications

The registration fees are as following:

Category		Earlybird	Regular	On-site
(USD)		By 15 September	By 1 October	After 1 October
Regular	IEEE Member	\$600	\$660	\$800
	IEEE Non-Member	\$700	\$770	\$900
Student/ Life Member	IEEE Member	\$400	\$440	\$600
	IEEE Non-Member	\$500	\$550	\$700

IEEE Seoul Section hosted one international conference on October 28-31, Jeju, Korea. (hosted by Seoul Section and Region 10). The detailed programs and outcomes of 2018 IEEE TENCON will be outlined as follow:



PLENARY SPEAKERS					
<b>JAMES JEFFERIES</b> President & CEO IEEE	<b>PARK Jong-Kwan</b> Head of Network Technology R&D Center SK Telecom	<b>Kyungwhoon Cheun</b> Executive VP, Head of R&D, Networks Business Samsung Electronics	<b>Seok Hee Lee</b> President and COO SK hynix	<b>Takeshi Yamada</b> VP, Head of Communication Science Laboratories NTT	<b>Jun Yu</b> Co-Director General, International Cooperations Department SGCC
IEEE and the Role of a Professional Society	5G for Hyper-connected Society	5G is reality – Transforming Industries and Live	Memory-Driven Computing: The Future Evolution of Cognitive IoT Technology	Communication science as guidance for NTT's four AI directions	Energy Transition and the Best Practice of International Standards Development of SGCC

- Organizing Committee Meeting: 4 times in 2017 and 9 times in 2018.
- Accepted papers: 1116 papers
- Final presentation: 490 technical papers

- Plenary sessions: 3 days, 6 plenary speakers, all from industrial sectors.
- 2 tutorials: Blockchain and 360 degree immersive image processing.
- 4 industrial speakers: Samsung, SK Hynix, LG Electronics, and NVIDIA.
- 3 standardization talks: sponsored by Korea IEEE 802 forum.
- Membership development and life member session: 5 keynote speakers, 30 participants.
- Educational session: 3 invited professionals on security and future technology.
- Total participants: 585 registered participants and 35 volunteers, staff, and guests.

#### IEEE SYW Workshop at Seoul:



- 26-27 October 2018. 30 participants.
- Industrial visit: Samsung Seocho Campus-D'light Show room.
- Professional sessions: Students, WIE, YP sessions
- Social events: 1st night dinner and 2nd day lunch.

## B.4 Students Activities

### B.4.1 Student Branches

IEEE Seoul Section has 15 student branches in 2017 including two newly formed branches, **Chonbuk National University** and **Seoul National University of Technology**. Each student branch consists of undergraduate and graduate students ranging from 1 to 214. Each student branch was operated independently under the supervision of the student branch counselor of the section. The following are student branches of Seoul Section:

Organizational Unit Name (Number of Members)	Position	First Name	Last Name	Email Address
Ajou Univ.(31)	Counselor	Ikmo	Park	<a href="mailto:ipark@ajou.ac.kr">ipark@ajou.ac.kr</a>
Catholic Univ. of Korea (1)	Chair	Sang-Hyun	Cho	<a href="mailto:cshgreat@catholic.ac.kr">cshgreat@catholic.ac.kr</a>
	Counselor	Hang-Bong	Kang	<a href="mailto:hbkang@catholic.ac.kr">hbkang@catholic.ac.kr</a>
<b>Chonbuk Natl Univ. (20)</b>	Counselor	Yongsug	Suh	<a href="mailto:ysuh@jbnu.ac.kr">ysuh@jbnu.ac.kr</a>



Chung-Ang University (21)	Counselor	Jong-Soo	Choi	<a href="mailto:jschoi@cau.ac.kr">jschoi@cau.ac.kr</a>
Dankook University (2)	Chair	Jin	Park	<a href="mailto:pjk9466@nate.com">pjk9466@nate.com</a>
	Counselor	CheonWon	Choi	<a href="mailto:cchoi@dku.edu">cchoi@dku.edu</a>
Ewha Woman's Univ. (15)	Counselor	Meejeong	Lee	<a href="mailto:lmj@ewha.ac.kr">lmj@ewha.ac.kr</a>
Hongik University (27)	Chair	Jonghyuk	Lee	<a href="mailto:aaiiwitf@gmail.com">aaiiwitf@gmail.com</a>
	Counselor	Albert	No	<a href="mailto:albertno@hongik.ac.kr">albertno@hongik.ac.kr</a>
Korea University (113)	Counselor	Chang-Sung	Jeong	<a href="mailto:csjeong@korea.ac.kr">csjeong@korea.ac.kr</a>
Kyungsung University (3)	Chair	Grace	Lukman	<a href="mailto:grace.firsta@gmail.com">grace.firsta@gmail.com</a>
Seoul Natl University (214)	Counselor	Jong	Park	<a href="mailto:parkjk@snu.ac.kr">parkjk@snu.ac.kr</a>
<b>Seoul Natl Univ of Tech(25)</b>	Chair	Adhistira	Naradhipa	<a href="mailto:adhisitira.madhyasta@">adhisitira.madhyasta@</a>
	Counselor	Sewan	Choi	<a href="mailto:schoi@seoultech.ac.kr">schoi@seoultech.ac.kr</a>
Sogang University (43)	Chair	Sungho	Kim	<a href="mailto:samkim@sogang.ac.kr">samkim@sogang.ac.kr</a>
	Counselor	Jin Ho	Chang	<a href="mailto:jhchang@sogang.ac.kr">jhchang@sogang.ac.kr</a>
Soongsil Univ (16)	Counselor	Young Han	Kim	<a href="mailto:younghak@ssu.ac.kr">younghak@ssu.ac.kr</a>
Sung Kyun Kwan Univ (51)	Counselor	Joong Kyu	Kim	<a href="mailto:jkkim@skku.edu">jkkim@skku.edu</a>
Yonsei Univ (108)	Counselor	Hongil	Yoon	<a href="mailto:hyoon@yonsei.ac.kr">hyoon@yonsei.ac.kr</a>

### B.4.2 Student Activities

To activate student branches, IEEE Seoul Section promoted and supported student branch activities as following:

- Student paper contest: 24 November 2018, Hongik University. 33 papers from Korea, 4 papers from Japan. 10 professors. IEEE TOWERS (Tokyo Section) review by Mr. Taehyun Kim (2017 Student Paper Contest Winner).



- Hongik University Student Branch hosted Art-Technology festival for art fare: 23-24 November, 2018 at Hongik University. 23 competition teams participated. Funded by Hongik University and Seoul City government.



- Hongik University student Branch hosted Seoul Innovative Startup Party: 18 May 2018. 20 startup company attending. Networking and strategy exchange.
- Hongik University Student Branch hosted coding school for undeserved community funded by local government, Mapo district, Seoul (30 times from January to November, 26 professional teachers invited, 4,100 students participated).



- Hongik University Student Branch Seminar: 10 April. 50 students attending. “Intelligent and interactive smart toy system development” given by Dr. Seok Lee (KIST)
- Seoul National University Student Branch Seminar: 1 August. 50 students attending. “Multi-scale robotic systems for maintenance and life enhancement” given by Prof. Toshio Fukuda.
- Seoul Polytech University Student Branch Seminar: 30 January. 30 students attending. “Next generation PV inverters: innovations in components and system” by Dr. Babak Parkhideh (UNC-Charlotte). On 2 July “Optimized Hybrid PWM scheme for Mitigating Zero-Crossing Distortion in Totem-Pole Bridgeless PFC” by Prof. Henry Chung (City University of Hong Kong).
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## B.5 Affinity Group Activities

### Young Professionals Affinity Group Activities:

- Petition for YP Affinity Group approved: 4 September 2018 (YP00417). Founding Chair: Albert No (Hongik University)
- YP00417 hosted IEEE TENCON 2018 YP session on 30 October 2018. 4 panelists and 30 participants.



- YP00417 hosted IEEE R10 SYW Seoul Workshop on 26-27 October 2018. Industrial visit to Samsung D'light show room. 3 hour professional session at Hongik University. 30 participants.

### Women in Engineering Affinity Group Activities:

- New WIE Chair appointed: Prof. Jeongyon Shim (Kangnam University).
- Participated in IEEE R10 SYW Congress at Bali Indonesia: 30 August-2 September 2018.

- WIE00417 hosted IEEE TENCON 2018 WIE session on 30 October 2018. 3 keynote speakers, 5 panelists, and 60 participants.



- WIE00417 hosted IEEE R10 SYW Seoul Workshop on 26-27 October 2018. . Industrial visit to Samsung D'light show room. 3 hour professional session at Hongik University. 30 participants.

#### Life Member Affinity Group Activities:

- LMAG leadership was established for the first time: Prof. Kyun Hyon Tchah was elected as the chair of LMAG.
- Participated in IEEE R10 SYWL Congress at Bali, Indonesia: 30 August-2 September.



- First Life Member Meeting on 22 October at Lotte World Tower 81F.



- Petition for LMAG formation has been approved on 29 October 2018 (LM00417).
- LM00417 hosted IEEE TENCON 2018 MD and Life member session. 5 keynote speakers and 30 participants.



#### Educational Activities:

- IEEE TENCON 2017 Organizing Committee's Educational Visit to IEEE Seoul Section: 20 April 2018. Hongik University. General Chair, Program Chair, Publication Chair, Financial Chair, Publicity Chair, and Professional Activities Chairs gave detailed seminars on conference managements. 20 participants.





- Robert's Rule of Order training by Prof. Byung Gook park: 4 October 2018. Practical and thorough presentation of meeting processes for ExCom members. 13 members attending.



## B.6 Awards & Recognition Activities

- IEEE 50 years loyal member certificate and plague:
  - Mr. Sun Hwan Lee, Chairman of Shinsung Electronics Industry.\
- IEEE TENCON 2018 Awards and Recognitions
  - 585 Participants
  - 12 Best Paper Awards
  - 30 Keynote Speakers
  - 6 Plenary Speakers
  - 490 Presenters
  - Organizing Committee Members and TPC members
  - Recognition of the Education Visit of Malaysia Section Chair.

- Seoul Section's Recognition and Appreciation
  - Prof. Changhyun Kim for his services and leadership as IEEE TENCON 2018 General Chair.
  - Prof. Cheonwon Choi for his services as the TPC Chair of IEEE TENCON 2018.
  - Prof. Jinyoung Hwang for her services as the TPC Member of IEEE TENCON 2018.
  - Prof. Oh-Soon Shin for his services as the TPC Member of IEEE TENCON 2018
  - Prof. DongMyung Lee for his services as the Publication Committee Chair of IEEE TENCON 2018.
  - Prof. Hongil Yoon for his services as the Publicity Committee Chair of IEEE TENCON 2018.
  - Prof. Kyushik Hong for his services as the Industrial Committee Chair of IEEE TENCON 2018.
- Student Paper Award: Listed at Section C.1.2
- R10 Student Award : Mr Jonghyuk Lee and Hyung Kyun Kim – 1<sup>st</sup> Prize.



- R10 SYWL Participation Recognition: Prof. Kyun Hyon Tchah, Jeong Yon Shim, Jong Chang Yi
- IEEE/IEIE Joint Outstanding Young Engineer Award 2017 was given to Professor Sangho Seo of KAIST for his outstanding contributions to mobile networks and communications studies.

## B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Newsletter: IEEE Seoul Section's Report were distributed 6 times among the section members, 3 times for the section activity reports, twice for the TENCON 2018 participation, and once for the student paper contest.
- Home Page of the Section was opened at <http://sites.ieee.org/seoul> thanks to the efforts of web coordinator Prof. Jinyoung Hwang of Korea Aerospace University. The web pages were updated regularly.
- Unofficial facebook pages were open at <http://www.facebook.com/ieee.seoul> for TENCON 2018.
- Its official facebook site was <http://www.facebook.com/tencon2018>.
- Web site for IEEE TENCON 2018 was opened at <http://www.tencon2018.org>



## B.8 Industry Relations

- During IEEE TENCON 2018, 2 industrial sessions and 1 standardization had been held including 7 keynote speakers. Moreover, the 6 plenary speakers had been invited from industrial sectors including Samsung, SK Hynix, SKT, SGCC, NTT, and AT&T Bell Labs.
- 4 industrial speakers had been invited from Samsung, SK Hynix, LG Electronics, and NVIDIA.
- 



- 3 standardization talks had been sponsored by Korea IEEE 802 forum.
- Participants of Pre-TENCON Meeting, IRRR R10 SYW Seoul Workshop paid visit to Samsung D'light Show Room at Samsung Seocho Campus.

## B.9 Humanitarian Technology Activities

- Hongik Student Branch developed security checking pendant for the kindergarten student to prevent accidental leftover inside the school shuttle bus: The results have been broadcasted on local cable TV, on nation-wide newspapers, and finally number 1 newspaper Chosun Ilbo (15 September 2018).



- Prof. Suzana Brown (SUNY Korea) proposed Humanitarian Technology Workshop and Tutorials during IEEE TENCON 2018 to IEEE HAC. Eventually, the proposal was accepted and funded upto \$3,900. It hosted 2 technical sessions, 2 workshops, and 2 exhibition booths for Engineering Global Development topics.



## B.10 Community Activities

- IEEE AAT Festival will be held at Hongdae and attracted more than 200 visitors ranging from toddlers to professors emeritus. That exhibition had about 10 booths displaying art items combining AR and VR technologies using video, audio, robots, and drones.

## PART C - GOALS AND PLANS

### C.1 General Goals and Plans

The IEEE Seoul Section will hold the spirit of the IEEE and align section objectives to the working plans of R10. The section has several active plans for the year of 2018 and 2019. Some of work items are listed below.

- Evaluate TENCON 2018 with respect to technical, professional, and financial aspects. Keep the due date and adhere to IEEE conference guidelines and audits.
- Increase retention rate by promoting new industry memberships. Needs to create an industrial advisory board.
- Promote student branch activities such as Student Paper Contest, IEEE Day and IEEE Students and YP Idea Contest such as IEEE Rising Star Conference.
- Promote membership elevation to higher memberships
- Support technical activities for chapters in Seoul Section
- Strengthen member service for all section members through website by providing appropriate contents without visiting IEEE main-page.
- Enhance membership and fellowship through the annual higher membership promotion committee (HMPC) activities
- Invite volunteer officers to the updated applications and manuals for membership development and conference organizations through the officer workshops
- Publish section newsletter to communicate with other members in the section.
- Collaborate more closely with other academic societies of Korea including IEIE (IEEE)

K), KICS, KIEE, KIEES, KIISE, KIPE, KIPS, KOSBE, and OSK.

- Support and encourage members to participate in Region 10 activities as well as HQ activities. The IEEE Seoul Section will hold the spirit of the IEEE and align section objectives to the working plans of R10. We value humanity and we value recognition and appreciation.
- The section will continue to honor the services of volunteers and members by recognizing and appreciating through media, newsletter, and meetings. Not only the services of the individuals, but also the achievements of chapters, branches, and industries will be disclosed for recognition through the Milestone plaques, awards, prizes, badges, and certificates.

## C.2 Upcoming Events

### C.2.1 General Assembly: 15 December 2018 (Seoul KTX Station 15:00-18:00)

- IEEE SYW Korea Congress: 15:00-17:00
  - First Time Event for Student, Young Professionals, Women in Engineering Networking
  - Invitation to all sections in Korea.
  - Designed to activate professional and technical activities in each section..
  - Sponsored by IEEE Seoul Section.
- IEEE Seoul Section General Assembly: 17:00-18:00
  - Nomination Committee Report

#### Dear Seoul Section Members

IEEE Seoul Section is happy to inform all the members that the nomination committee decided to nominate the current Section Vice Chair, Prof. Chaewoo Lee of Ajou University, as a candidate for the Chair of Seoul Section in 2019. Vice Chair, Secretary and Treasurer will be appointed by the 2019 Section Chair and approved at the General Assembly Meeting.

According to the IEEE Bylaw, if any other member wants to be nominated for the chair position 2019, he(he) should submit a petition with more than 20 signatures of the Seoul Section members. Submit the completed petition to current chair of the Seoul Section at wave@hongik.ac.kr, by December 7, 2018 for the election at Assembly Meeting at 17:00, Dec. 15, 2018 at Meeting Room 1 at Seoul KTX Station.

Thank you and Best Regards,

Jong Chang Yi, Chair  
IEEE Seoul Section



[IEEE SYW Korea 2018 Invitation Letter and Prof. Chaewoo Lee, Ajou University]

- IEEE Korea Council Meeting: 18:00-19:00
  - Korea Council Members are invited to Dinner Meeting at Seoul KTX Station.

### C.2.2 IEEE Seoul Section HMPC: 28 December 2018 (Westin Chosun Hotel 18:00)

- IEEE Special Lecture: IEEE Fellow Prof. Sung June Kim (Seoul National University)
  - Title: “노령화 사회에서의 생체전자공학 (Bioelectronics for Aging Society)”
  - 2017 IEEE Fellow cited for the contributions to the design of microfabricated neural prosthetic devices
- IEEE Awards and recognitions
- Music and Entertainment
  - S-Vision Voice (Encore from IEEE TENCON 2018)
  - Violin Concert (Trio)
  - And more...







- Date: 28 December (Friday) 2018 18:00-21:00
- Place: Westin Chosun Hotel 2F Ballroom
- Dress Code: Formal
- IEEE Life Member & Fellow: Free Registration (Spouse Free)
- IEEE Member and Non-Member: KRW 100,000 (Spouse: Free)
- IEEE Chapter Chairs, Student Branch Advisers, and Standing Committee Chairs: Free
- Registration/Donations to IEEE: Onsite payment by credit card  
or bank transfer to:  
Woori Bank 1005-503-217183 IEEE Seoul Section
- RSVP required by 10 December to [wave@hongik.ac.kr](mailto:wave@hongik.ac.kr) or 010-2368-1484.



### C.2.3 IEEE Seoul Section Student Paper Contest: 24 November 2018 (Hongik University 13:00-18:00)



**IEEE student paper contest call for papers**

IEEE Seoul Section calls for papers for student Paper Contest 2018, an annual convention to promote its Student Members' technical paper publications. Outstanding papers selected from the contest will be granted a privilege to participate in IEEE Region-10 Student Paper Contest 2019. Active participation is solicited from all Student Members from IEEE Seoul Section. Submission guidelines and a detailed schedule of important dates are as follows:

**Paper Submission**  
Submit your paper written in English (3-6 pages recommended) electronically in PDF-format online at <http://sites.ieee.org/seoul/paper/>

**Scope of English Papers**

1. Original English papers unpublished or not submitted for publication on any other journals or proceedings
2. English papers presented in domestic conferences\* in 2018
3. Translated papers presented in domestic conferences\* in 2018

\*The name of the domestic conference should be stated in the paper.

**Notification of Acceptance**  
Via e-mail by **November 14 (Wed), 2018**

**Final Presentation**  
Oral presentation for 15 minutes, **Nov.24 (Sat), 2018**  
3rd and 9th Floor Hong-Moon Kwan, Hongik University

**Prizes**  
1 Grand Prize, 2 Gold Paper Awards, 3 Silver Paper Awards, and Excellent Paper Awards for all the participants in the final presentation. Awardees will be announced right after the final presentation.

**Maximum Number of Papers**  
Limited to two papers per advising professor

**Submission Due :**  
**Midnight, Nov.10 (Sat), 2018**

**November 24th, 2018**  
**Hongik University**

**Organizing Chairs**  
Prof. Jong Chang Yi, Hongik Univ.  
Prof. Dongmyung Lee, Hongik Univ.

**Technical Program Committee**  
**Chair:** Prof. Inkyu Lee, Korea Univ.  
**Chair:** Prof. Hongil Yoon, Yonsei Univ.  
**Members:**  
Prof. CheonWon Choi, Dankook Univ.  
Prof. Changhyun Kim, POSTECH  
Prof. Chaewoo Lee, Ajou Univ.  
Prof. Jinyoung Hwang, KAU  
Prof. Yoonhee Kim, Sookmyung WU  
Prof. Sanghyun Lee, Korea Univ.  
Prof. Soyoung Kim, SKKU  
Prof. Kyeon Hur, Yonsei Univ.  
Prof. Jongsun Kim, Hongik Univ.  
Prof. Yongjun Park, Hanyang Univ.  
Prof. Sungroh Yoon, SNU  
Prof. Hyungmin Cho, Hongik Univ.  
Prof. Kjin Han, Dongguk Univ.

**Local Arrangement**  
Prof. Albert No, Hongik Univ.

**Contact**  
[Jinhwang@kau.ac.kr](mailto:Jinhwang@kau.ac.kr)

- Registration: 13:00-14:00 Hongik University Hongmun Gwan 924 (R-924)
- Presentation: 14:00-16:00 4 Sessions (R-318, 319, 320, 924)
- Poster Presentation: 16:00-17:00 Buildong R 1F Lobby (Co-located with AAT)
- Awards Ceremony: 17:00-18:00
  - Grand Prize: 300,000 (1)+Travel fund for 2019 TOWERS (Tokyo)
  - Gold Prize: 200,000 (2)
  - Silver Prize: 100,000 (3)
- Dinner: R 16F Mary King / RYSE (ex-Seokyo Hotel 4F Longchim)
- Group Photo