

## 4th International Conference on Science and Technology (ICST)



On August 7-8 2018, 4th International Conference on Science and Technology (ICST) was held in Yogyakarta. This conference was organized by Universitas Gadjah Mada (UGM) as part of Universitas Gadjah Mada Annual Scientific Conferences (UGM-ASC 2018) series and supported by IEEE. ICST 2018 provides an ideal academic platform for researchers to present the latest research findings and describe emerging technologies and directions in engineering and the natural sciences.

The 4th International Conference on Science and Technology consists of seven symposia, namely Computer and Information Technology Symposium; Electronics, Communication, Control, and Instrumentation Symposium; Environmental and Earth Science Symposium; Material Science and Chemistry Symposium; Mechanical and Industrial Engineering Symposium; Power and Energy Symposium; and Remote Sensing and Geomatics Symposium. In addition, the conference committee has invited nine renowned speakers, Prof. Fitri Yuli Zulkifli from Universitas Indonesia; Prof. Gerard Remijn from Kyushu University, Japan; Prof. Hutomo Suryo Wasisto from

Technische Universität Braunschweig, Germany; Dr. Deendarlianto from Universitas Gadjah Mada; Prof. Azhar Zam from University of Basel, Switzerland; Assoc. Prof. Rohayu Che Omar from Universiti Tenaga Nasional, Malaysia; Prof. Cheon-Gyu Cho from Hanyang University; Dr. Julius Motuzas from the University of Queensland, Australia; and Prof. Riyanarto Sarno from Institut Teknologi Sepuluh Nopember, Indonesia.

This year, the 4th International Conference on Science and Technology (ICST 2018) received 397 submissions from 12 countries throughout the world. All submitted papers went through a rigorous review process and each paper was evaluated by at least three independent reviewers in accordance with the standard blind review process. Based on the results of the rigorous review process, 266 papers have been selected, which constitute the acceptance rate of 67.0 %. The accepted and presented papers will be submitted to journals/proceedings that are indexed by Scopus: IEEE Xplore digital library, Trans Tech Publications, and E3S Web of Conferences. Quality selected papers from Material Science and Chemistry symposium will be published in Indonesian Journal of Chemistry.

## Special Report: IEEE Region 10 SYWL Congress 2018

(Reported by Kurnianingsih)

IEEE Region 10 Students/Young Professionals/Women in Engineering/Life Member (SYWL) Congress 2018 has been a great success on 30 August–2 September 2018, at Prime Plaza Hotel, Sanur – Bali, Indonesia. This Congress is a biannual event and was attended by over 300 delegates. The Congress was attended by the representatives from other Regions apart from delegates from 50 sections of Region 10. The details are: 250+ delegates from 50 Sections in Region 10 (Asia Pacific), Region 1 (Northeastern US), represented by John Day, Director of Member Products and Programs, Region 2 (Eastern US), attended by Jeff Eker, R2 Young Professionals Chair, Region 3 (Southern US), attended by Subodha Charles as a representative of IEEE IAS, Region 5 (Southwestern US), attended by James Jefferies, IEEE President, Region 7 (Canada), attended by Dr. Maike Luiken, IEEE Region 7 Director, Region 8 (Africa, Europe, Middle East), attended by Dr. Rafal Sliz (IEEE Young Professionals Global Chair); Flavia Dinca (IEEE Young Professionals Vice Chair); Shashank Gaur as a representative of IEEE COMSOC.



The theme of the Congress is Collaborative Innovation for Society Development. The objective of this Congress is to provide a platform for IEEE volunteers from different Sections for networking and sharing experiences as well as to train the volunteers about IEEE activities, best practices and methodologies. The participants take the information from the Congress to their respective Sections for implementing future strategies and training of other local volunteers. The Congress was inaugurated by the IEEE President and CEO, James Jefferies and he was assisted by a robot making the

inauguration unique and memorable. Following dignitaries attended and the opening ceremony along with the participants and volunteers: IEEE President, James Jefferies, IEEE Region 7 Director, Dr. Maike Luiken, Ministry of Youth & Sports of the Republic of Indonesia, represented by Deputy of Youth Empowerment Sector, State Minister for Youth & Sport Affairs, Prof. Dr. Faisal Abdullah, Leader of Education, Youth, and Sport Office of Bali, Tia Kusuma Wardhani, Mayor of Denpasar City, Ida Bagus Rai Dharmawijaya Mantra, SE, M.Si, Director of Oracle Academy for Asia Pacific and Japan, Damian Haas, Country Manager of Oracle Academy for Indonesia and Malaysia, Nurul Huda.

Sponsors for this event is divided into 3 groups: GOLD Sponsor (ORACLE Academy, IEEE Young Professionals, IEEE Humanitarian Activities Committee), SILVER Sponsor (IEEE Power & Energy Society (PES): Hassaan Idrees, IEEE Industry Applications Society (IAS): Subodha Charles, IEEE Collabratec: John Day, IEEE Communications Society (COMSOC)) and BRONZE Sponsor (iCon+, Indonesia, IEEE Region 10 Strategic Planning, IEEE Region 10 Industry Relations, IEEE Region 10 Individual Benefits & Services, IEEE Educational Activities Board, IEEE Region 10 Educational Activities, Udayana University, Student Branch Udayana University, WIE Affinity Group Udayana University).

Highlights of Program:

- **Panel Session – ‘Bridging the gap between the Industry, Academia and Government’**

Panelists: Jim Jefferies, IEEE President & CEO; Prof. Akinori Nishihara, IEEE R10 Director-elect; Dr. Jumain Appe, Director General of Innovation Strengthening, Ministry of Research, Technology and Higher Education of the Republic of Indonesia; Mr. Ery Punta Hendraswara, Managing Director of Indigo Creative Nation, Telkom Indonesia. Moderator: Dr. Endang, Agency for Assessment & Application of Technology, Indonesia.

During the panel session, several issues were discussed related to the challenges of bridging the gap between the industry, academia and government. The panelists shared their experiences as leaders in their respective domains on how to enable impactful university-industry-government partnerships. Participants had the chance to interact with the panelist and raised issues for discussion.

- **Awarding Night**

Some Region 10 awards were given from respective category at the Awards Night by Student Coordinators, Young Professionals Coordinators, and Women in Engineering Coordinators.



- **Parallel Sessions**

Various parallel sessions were organized for Students, YPs, WIE and Life Members. Life Members very enthusiastically participated in the Congress.

- **Panel Discussion**

Panelists: Toshio Fukuda, Past Region 10 Director; Akinori Nishihara, Region 10 Director-Elect; Deepak Mathur, Region 10 Vice Chair of Membership Activities.

A panel discussion on Technologies and Industrial needs of 4th Industrial Revolution are our students and young professionals ready to join the pace' was organized with following panelists, and the session was moderated by Amit Kumar, Member - IEEE MGA IEEE Strategic Planning Committee.



- **Cultural Night & Exhibition at SYWL Congress 2018**

This Congress hosted a Multi-Cultural Exhibition on the evening of 1st September. All representing IEEE Sections at the Congress were invited to showcase their activities and culture. IEEE President, IEEE Region 10 Director, other dignitaries and all participants went around the stalls interacted and enjoyed different cultures. Two best stalls were awarded. This cultural exhibition was followed by a Multi-Cultural Performance to showcase their culture witnessed by all.

- **Mini IEEE Region 10 EXCOM meeting**

A meeting was conducted by the Region 10 Director to review the activities of Region 10 with following agenda: Report on the Current Status, Evaluation and Incentive, Discussion: Strategy to Evaluate Sections and Incentive Methodology. All participating Region 10 EXCOM members made a short presentation of their activities.



## SYWL 2018 Congress

(Reported by Fathimah Rahimullah)

Being a delegate in the Region 10 SYWL 2018 congress was a real eye opener for me personally, as it was also the first congress that I have ever attended. The congress portrayed Region 10 as it really is, a melting pot of cultures around the Asia Pacific area. Amazingly all these differences were gathered together because of our passion in science, technology, and working together with our skill to improve humanity.

For me this congress created a lot of beginnings. The beginning of my participation in future congress and conferences. Also, the beginning of a lot of friendships which was acquired during the four days filled with networking and meeting new people. These people that I met came from diverse backgrounds from different stages of education. But these things were not barriers. These gaps and differences were great because it means that there were more knowledge and experiences to be shared.

As an undergraduate student, I was not used to interact with people from higher stages of education. It was not rare to see professors and students from different universities and countries talking to each other. I was also surprised to have known that a lot of the delegates were already taking doctoral studies. I learned a lot from these experienced seniors which inspired me to continue my education.

Overall, this congress was a joyful experience for me. A lot of things were shared such as knowledge, experience in managing IEEE student branches, and plans for both my future and also the future of IEEE. I hope that all the connections started here will last therefore we can collaborate with each of our own expertise to contribute to the development of humanity and society.



## Teacher in Service Program (TISP)

(Reported by Muhfizaturrahmah)

After successfully hosting Teacher In-Service Program (TISP) in 3 major cities in Indonesia (Jakarta, Pekanbaru and Bandung), IEEE was back to hold the fourth training workshop of TISP in Bali on August 30th, 2018. The event supported by IEEE R10 Educational Activities, IEEE Indonesia Section, and IEEE SYWL 2018 was conducted at Denpasar Room, Prime Plaza Hotel, Sanur, Bali, Indonesia with two main speakers, Supavadee Aramvith, PhD, IEEE Pre-University Education Coordination Committee (PECC) Chair and Zuhaina Zakaria, PhD, IEEE Region 10 Educational Activities Coordinator.

The Teacher In-Service Program (TISP) itself provides a forum for IEEE volunteers to demonstrate the application of science, technology, engineering and math (STEM) concepts by sharing their real-world experiences with local pre-university educators. IEEE offers training workshops for its volunteers on how to provide in-service programs to local pre-university educators. TISP functions essentially as a professional development workshop aimed at helping teachers bring exciting hands-on engineering lessons into their classrooms. Once trained, IEEE volunteers can connect with pre-university schools in their local communities to deliver the hands-on program.

The training workshop began at 08.30 with welcome remarks by Prof. Dr. Fitri Yuli Zulkifli, S.T., M.Sc., IPM, IEEE Indonesia Section Chair, followed by the talks by two main speakers. Afterwards, two hands-on activities which were adopted from [tryengineering.org](http://tryengineering.org),

Working with Wind Turbine and Building your Own Robot Arm, brought entire 41 participants from countries of Asia Pacific region to their fullest focus by engaging them with both exciting and challenging design competition. The event concluded at 03.00 PM with closing remarks by PECC Chair and group photos.



## IEEE Indonesia Officially Legal Entity



On August 24, 2018 IEEE Indonesia Section created a new history since its establishment in 1988. For the first time in 30 years since its establishment, Ministry of Law and Human Rights approved IEEE Indonesia Section as an official legal entity. This makes IEEE Indonesia Section has more benefit as a professional organization.



## SSCS DL Visit By Dr. Arun Natarajan

On 6-7 August 2018, the School of Electrical Engineering and Informatics Institut Teknologi Bandung (SEEI ITB) hosted a Distinguished Lecturer (DL) Program. This annual program is organized by the IEEE Solid-State Circuits Society (SSCS) Indonesia Chapter. This year, Dr. Arun Natarajan, an associate professor from Oregon State University, USA, delivered a talk titled "Wireless Powering for Ultra Low Power Batteryless IoT Sensing and Communication". Around 50 people attended the talk. The talk was held in conjunction with SEEI Summer School 2018. International students, from Taiwan, Japan, Singapore and Vietnam, attended Dr. Natarajan's talk.

As a master of ceremony of the event, Novi Prihatiningrum, guided the event agenda throughout the day from the opening until closing. The event started off with a welcome speech by Prof. Dr. Ir. Nana Rachmana Syambas M.Eng., representative of SEEI ITB, and Trio Adiono, ST., MT., Ph.D, Chair of the IEEE SSCS Indonesia Chapter. On the first day of the lecture, Dr.

Natarajan explained the fundamental theory of rectifier and voltage multiplier as the most essential building block of a wireless system. An in-depth analysis and optimization on how to co-design an antenna and rectifier in Ultra High Frequency (UHF) band was also explained. The second day of the lecture focused on the practical implementation of the wireless powering technique.





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## Editor Corner

We welcome all the readers for the 16th edition of our newsletter. This newsletter is from us to us and hopefully it is useful for all Indonesian IEEE members. We hope that the article can inspire you. This month, we have special report on SYWL Congress 2018, exciting news and other activities. What are these activities? Read this newsletter, more information is included. We will also continue to update about all our activities through newsletters and e-notices. Please be aware with these important major activities in 2018! Hope you enjoy this newsletter edition! Happy reading!

Casi Setianingsih & A'isya  
Editor – IEEE Indonesia Newsletter

We are waiting for the participation of Chapters and Student Branch in Indonesia to share the information of completed and ongoing activities and the participation of Chapters in Indonesia to share the regarding technical articles. For members IEEE who want to share information and articles please email to :

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