

## Monthly Newsletter

*No. 04, August 2017*

We welcome all the readers for the 4th 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 changes and the additions that are made in the newsletters will be liked by all of you.

Welcome!



Celebrating IEEE Day 2017, we proudly present to you IEEE INDONESIA "WISHY" CONGRESS 2017, with theme: "Technology for Quality of Life". The WISHY Congress is held jointly with "The 6th IEEE International

Conference on Communication, Networks and Satellite (COMNETSAT 2017)".

Speakers:

**1. Teguh Prasetya**

*Founder Indonesia IOT Forum*

"Challenge and Opportunity IoT Business in Indonesia"

**2. Adrien Tay**

*IOT Sales Director, APAC Kathrein Asia Pacific Pte Ltd*

"To Where The IOT "world trends" goes to"

**3. Dr. Denny Setiawan**

*Director at Ministry of Telecommunication and Information, Republic of Indonesia*

"Regulatory Challenge for IoT Implementation in Indonesia"

**4. Satriyo Dharmanto**

*Founder & CEO, Multikom*

"IoT Implementation for Better Future Life"

**5. Telkomsel**

"Business Prospect of IoT from Mobile Operators in Indonesia"

**6. Dr. Eng. Khoirul Anwar**

Workshop on "Tutorial on Scientific Writing and International Publications"

**7. Dr. Yoke S. Irawan**

*IEEE SIGHT on eHealth & Telemedicine*

"Getting Funding to Realise your Research - whether, when and how"

**8. Dr. Linawati**

*IEEE Indonesia Human in Technology Rural Empowering (HTRE) Chair*

"Developing Humanitarian Technology Through Student Projects"

**9. Nivas Ravichandran**

*IEEE Region 10 Young Professionals Coordinator*

"Building a Community of Young Professionals in Asia Pacific"

**10. Prasanth Mohan**

*Program Chair, IEEE Extreme*

"IEEEXtreme: The Recipe for Success"

Contact:

Karlisa Priandana

+6281809092703

[kpriandana@gmail.com](mailto:kpriandana@gmail.com)

## 2017 IEEE SECTIONS CONGRESS

Reported by Kurnianingsih  
(Indonesia Young Professional Chair)  
[kurnia.s3te13@mail.ugm.ac.id](mailto:kurnia.s3te13@mail.ugm.ac.id)



The 2017 IEEE Sections Congress was held on Aug 11 – 13, 2017 at International Convention Centre, Sydney, Australia. Statistics as follows: Attendees – 1250; Exhibitors – 50; Countries – 165; Speakers – 200.

It has been a precious moment to meet representatives convening from all over the world to start building the future IEEE with

a great enthusiasm and a great passion. Thinking about the breath and the depth of the IEEE activities, how they impact in the innovation, the economy, the society, and the humanity. Bright minds convened from around the world to discuss about opportunities and challenges for scientific and professional communities and the future IEEE. The Congress would be the fuel for the bright minds of our extraordinary volunteers and will warm up their open hearts to continue in their efforts for the benefit of the entire humanity. The Sections Congress is a unique opportunity to see all IEEE activities that has been developed and experimented around the world to nurture members and volunteers as well as to build the technical community, a unique opportunity for networking among the IEEE leaders from around the world. Building the future IEEE together, without barriers and without borders. Having in mind the benefit of humanity through valuing and respecting all diversities, the richness of our community.

Starting the pre-Congress with IEEE Region 10 Meeting, led by IEEE R10 Director, Prof. Kukjin Chun. Proudly to announce that IEEE Region 10 Golden Jubilee (50) year commemorative book was launched at IEEE Sections Congress 2017 in Sydney. Continued with speech from Stefan Mozar about Recommendation. The IEEE Executive Director & CEO, Jim Prendergast delivered the IEEE Executive Director's Report. One of the reports is about the IEEE membership stats till end of June 2017. Furthermore, Jim Jefferies explained IEEE 2017: Advancing Technology for Humanity, by 2017 IEEE President-elect. Highlights here: (1) Creating the Next Generation of IEEE: Engage, Enable, and Empower Diverse Global Communities; Serve IEEE's Communities of the Future; Support the Development of Young Professionals; (2) Young Professionals are the

Future of IEEE; (3) IEEE's innovation engine: Big Data, Cybersecurity, Green ICT, Internet of Things, Smart Cities, Rebooting Computing, Smart Materials, Software Defined Networks.

After the pre-Congress, there were many interesting parallel sessions and exhibitions to attend, such as: Women in Engineering, Young Professionals, Industry Engagement, Membership Development, etc.

## A PROTOTYPE OF MARITIME SURVEILLANCE RADAR PRESENTED TO THE MINISTRY OF TRANSPORTATION AS A GRANT

Reported by Andrian Andaya Lestari  
(Scientist at LABS 247, Jakarta)  
lestari@ieee.org

A research consortium consisting of three companies, i.e., SOLUSI 247, PT TRI and PT Pandu Biam Daya, developed a prototype of maritime surveillance radar for two years from 2015 to 2016. The radar development was funded by the Ministry of Research, Technology and Higher Education through the Industrial Technology Development Program (PPTI) research grant scheme. The resulting radar prototype, called INDERA MX-4, is the fourth generation of its kind, developed first in 2006. The radar was designed for coastal or shipborne maritime surveillance applications with the following features:

- TX frequency range : 9250 – 9430 MHz
- Peak TX power : 5 W
- Modulation : LFM (FMCW)
- Range : 30 nm
- Antenna gain : 28 dBi

In the mentioned radar development each consortium member had a specific responsibility, i.e., RF system development, antenna system development, and outdoor unit construction, which are the main task of SOLUSI 247, PT TRI, and PT Pandu Biam Daya, respectively.

Since March 2017 the radar prototype has been installed at the Vessel Traffic Services (VTS) station, the harbor of Merak in Merak, Banten, and used continuously for vessel traffic monitoring in real operating conditions by the VTS operators as part of its performance test and evaluation. During the mentioned performance test and evaluation it has been found that in general the radar performed satisfactorily and met the VTS operation requirements determined by the Ministry of Transportation. It is worth mentioning that the performance test and evaluation was also carried out successfully during the peak "mudik" traffic weeks of the last Iedul Fitri holidays. On June 15th, 2017 official and final test of the radar was carried out at the Merak VTS Station, attended by officials from Directorate General of Maritime Transportation, Ministry of Transportation, and Ministry of Research, Technology and Higher Education. As a result, the radar was officially approved by the Directorate General of Maritime Transportation for operational use at the VTS stations of the Ministry of Transportation.

In support of the government's policy to promote domestic high-tech products, the abovementioned INDERA MX-4 radar prototype was officially presented by the Ministry of Research, Technology and Higher Education to the Ministry of Transportation as a grant. The

radar was to be used by the Ministry of Transportation as a coastal surveillance radar as part of the Vessel Traffic Management and Information System (VTMIS) at the harbor of Merak. The radar prototype was presented in an official ceremony at the Office of Navigation District Class 1, Tanjung Priok, Jakarta on July 31st, 2017. The official handover of the radar was planned to be done directly by the Minister of Research, Technology and Higher Education and the Minister of Transportation. However, due to an unexpected last-minute duty from the Office of the Vice President, both ministers were unable to attend the ceremony. The Minister of Research, Technology and Higher Education and the Minister of Transportation were then represented by the Director General of Research and Development, Muhammad Dimiyati, and the Secretary General of Ministry of Transportation, Sugihardjo, respectively. In their speeches both officials expressed their appreciation that a domestic maritime surveillance radar technology is now available. Furthermore, they expressed their hopes that soon maritime radars will be produced locally in Indonesia and used throughout the country.



## IEEE ANZSCON 2017 : STUDENTS AND YOUNG PROFESSIONALS CONGRESS

Reported By Michelle Christine  
(Treasurer IEEE SB Tel-U)  
michelle.christine.ieee@gmail.com

As a professional institution, IEEE supports hundreds of events that appreciates its members. One of the event is IEEE ANZSCON 2017. This year, few students from Indonesia got the chance to attend and participate in this congress. My name is Michelle and here is my report.

There were 5 of us who attended the event. M. Aditya Ramelan (ITB), M. Andre Mutalibov (Tel-U), Naufal & Ramadana (UI), and I, Michelle Christine (Tel-U). The first day, they welcomed us with morning tea and snacks. The event started with keynote speeches from the Australia and New Zealand representatives. All of them were surprisingly inspiring, and opened our mind to a global wide IEEE. Not only that, on the first day there were few workshops and discussion group. We discussed how to improve Student Branches all over the world. And the IEEE Student Coordinator were there too, so it was our chance to speak our mind regarding Student Branches.



After the lunch, they held the undergraduate and post graduate poster competition. Aditya and I got shortlisted and participated. We presented our poster and we answered lots of questions regarding our poster. Sadly, for the first 10 minutes, the committee mistakenly categorized my poster as a post-grad poster. But all was good. After we presented the poster, the president of IEEE gave a keynote speech which was so inspiring.



Later that night, we went to a dinner cruise where we could see the most amazing view of Sydney. Not only an amazing dinner, we also got the chance to broaden our links by networking. I personally met few amazing people, not only from the Engineering Industries, but also from the side of Law. I met

few Lawyers, who admitted they are interested in the world of Engineers, who also attended the dinner.

The last day of the event, most of the seminars and keynote speeches were all about how to develop our own Student Branches to a better one. On the last day, they also presented the awards for the poster competition. They only gave 3 awards, Post-Graduate winner, Undergraduate winner and People's choice winner. Aditya and I did not get any award, but we were proud of what we have achieved. The committee applauded us for coming all the way from Indonesia. We also presented them with a token from our culture, 'Topeng Batik' and a map of Indonesia pictured with Batik.

Lastly, I personally want to thank IEEE Indonesia Section for supporting Aditya and I to join this wonderful event. We achieved more than we expected. We met new people in our field from all over the world, which was the best thing. Thank you.

## IEEE COLLOQUIUM IEEE UB STUDENT BRANCH

Reported By Wildan Alfi Syahri  
(Chair IEEE UB SB)  
wildanalfi@gmail.com

Energy can not be separated from everyday human life and important in every activity of society. Indonesia has a great potential in the supply of energy, both non-renewable energy such as oil and coal as well as renewable ones such as solar and geothermal. Unfortunately, the potentials are not

maximized in its processing and the increasing economic growth. Moreover, the population in Indonesia which in the future will affect the amount of energy demand in Indonesia, so that people are required to think outside their comfort zone, by looking at opportunities that exist in Indonesia. With the existence of such a problem we want to hold an event to discuss the problem and can find a way out.



In collaboration with Power Systems Engineering and Energy Management Research Group (PSeeMRG), IEEE UB Student Branch has held a Colloquium event. This event is purposed to be a forum for Electrical Engineering students to increase energy insight, as well as to share ideas and discussions from various points of view in producing ideas and strategies for optimizing renewable and non-renewable energy. The event themed "Challenges and Opportunities in Energy Cultivation and Usage for a Better Future" with 3 keynote speakers are indeed made considering the condition in Indonesia which not well distributed in the energy field in each island. So it is not surprising that one of the keynote speaker is Prof. Arif Nur Afandi, S.T., M.T., MIAENG, MIEEEE, Ph.D., who is a lecturer of Malang State University explained about An Opportunity Implementation of The Thunderstorm Algorithm in Electrinal

Engineering. In addition, followed by Ir. Hadi Suyono, S.T., M.T., MIAENG, MIEEEE, Ph.D., IPM. regarding about Renewable Energy - Problem and Challenge and the last is Eka Maulana, S.T., M.T., M.Eng., MIAENG, MIEEEE., which discusses Smart Grid Technology and UB's Empowerment for Sustainable Energy.



In his speech, M. Aziz Muslim, ST, MT, Ph.D. as the Chairman of Electrical Engineering Department Brawijaya University said that this event was the first event of IEEE UB Student Branch after long-time vacuum and expected to be more activities next time. So IEEE UB Student Branch will be able to develop through student activities and research activities.

## THE FIRST ISCECE 2017 IEEE UNUD STUDENT BRANCH

Reported By Rahmat Rudiantono, Linawati  
(Chair of IEEE SB Udayana,  
Advisory Board of IEEE SB Udayana)  
Rahmatrudi27@gmail.com, linawati@unud.ac.id

The International Student Conference on Electrical and Computer Engineering (ISCECE) was held on Friday, August 25th, 2017,

at Wiswakarma Hall of Faculty of Engineering, Udayana University, Denpasar, Bali.



Speakers in this event were Yoga Divayana, PhD from Udayana University and Prof. Kouichi Takase from Nihon University, Japan. This was the first student conference conducted by IEEE SB Udayana University, therefore it has three parallel sessions with students' presentations with various topics on electrical and computer engineering.

This event was expected to extend the students and participants view about emerging technologies today and in the future. This conference also was held to celebrate the 52nd Anniversary Faculty of Engineering and 55th Anniversary Udayana University. In addition this event called "International Student Conference on Electrical and Computer Engineering (ISCECE) 2017" to support IEEE activities in general. So that both students and professionals can increase and share knowledge and experiences, then to enhance students and society insight, and IEEE SB members in

particular.



IEEE Udayana University Student Branch was formed on March 14, 2015 with 20 members of originator. As a newly formed student branch, IEEE Udayana University Student Branch is often unknown to Udayana University students and public. IEEE Udayana University Student Branch is an organization for Udayana University students to channel their ideas and opinions about new innovations in technology. The existence of Student Branch can be a means for students to be able to dig deeper capabilities that are expected to bring change for technological progress. Thus one potential way to introduce and express the existence of IEEE Udayana University Student Branch was by organizing "International Student Conference on Electrical and Computer Engineering (ISCECE) 2017".

## IEEE AT GLANCE

Reported By Dr. M. Syafrullah, M.Kom., M.Sc  
(Director of Masters Program in Computer Science)  
mohammad.syafrullah@budiluhur.ac.id

On Saturday, August 19, 2017, IEEE Indonesia Section in collaboration with The Budi Luhur University Masters Program in Computer Science held an event titled "IEEE at Glance" at Theater room of Budi Luhur University. The event was followed by students and lecturers from both undergraduate and graduate programs with about 150 participants. The event begins with an opening remark by Dr. Suhartono, MA., MBA., as Director of Postgraduate Program of Budi Luhur University.



This great event was attended by Dr. Fitri Yuli Zulkifli, M.Sc, as the IEEE Indonesia Section Chair. She became a speaker in this event. In her presentation she gave information about the IEEE Indonesia Section and the many advantages of being a member IEEE, also describing the newly elected IEEE Indonesia Section stewardship structure at the beginning of this year. In addition she also explained about the activities that have been and will be implemented by the IEEE Indonesia Section. The event was followed by question and answer session from the participants, and ended with a photo session together.

## EDITOR

The 4th edition of the IEEE Indonesia Section 2017 newsletter includes activities which have been conducted in August 2017. The first article is a technical article about a prototype of maritime surveillance radar that was presented to the ministry of transportation as a grant. The second activities is report about IEEE ANZSCON 2017; Students And Young Professionals Congress in Sydney, Australia. The third report is IEEE Colloquium from Student Branch Brawijaya University. We have articles and other information that is also interesting. Hope you enjoy this newsletter edition!

Happy reading!

Casi Setianingsih & Hugeng,  
Editor - IEEE Indonesia Newsletter

Official Website

<http://ieee.id>

IEEE Indonesia Section

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 :

casie.sn@ieee.org /  
hugeng.sps@ieee.org