

# IEEE Indonesia Section Annual Report 2015

## Region 10 Section Report

### PART A - SECTION SUMMARY

#### A.1 Executive Summary

##### ❖ Section Executive Committee Member List

###### *Advisory Committee*

- Dr. Ir. Wahidin Wahab (SM)
- Dr. Ir. Arifin Nugroho (SM)
- Prof. Dr. Ir. Dadang Gunawan (SM)
- Ir. Arnold Ph Djiwatampu (LSM)
- Arief Hamdani Gunawan, ST, MSi.
- Muhammad Ary Murti, ST, MT.
- Kuncoro Wastuwibowo, Ir. MSc. (SM)

###### *Executive Committee Member List (elected 2015)*

- ❖ Chair: Satriyo Dharmanto, Ir. MSi.
- ❖ Vice Chair: Dr. Ford Lumban Gaol (SM).
- ❖ Secretary: Dr. I Wayan Mustika.
- ❖ Treasurer: Agnes Irwanti, SE, Msi.

###### *Activity Committee*

- Technical Activity: Dr. Fitri Yuli Zulkifli (SM)
- Education Activity: Dr. Ayu Purwarianti
- Industry Relation: Anggoro Yudho ,ST
- Professional Activity: Dr. Elyas Palantei
- Conference Coordination: Dr. Henry Uranus
- Membership Development: Prof. Gamantyo Hendratoro (SM)
- Student Activity: Dr. Suryadi Liawitemena
- Communication and Promotion: Dr. Sunu Wibirama

###### *Affinity Group Chairs*

- Women in Engineering: Prof. Dr. Riri Fitri Sari (SM)
- Young Professional: Kurnianingsih, ST. MT.
- Student Representative : Amanda Julia Isa
- Human in Technology Rural Empowering (HTRE): Linayati, Ph.D.
- Social Activity: Kanisius Karyono, ST, MT.
- SIGHT in Telemedicine: Dr. Yoke Saadia Irawan
- SIGHT (Special Interest Group on Humanitarian Tech.): Lingga Wardana, ST, MBA

### *Chapters Chairs*

- Computer Society Chapter (C16): Dr. Ary Setijadi Prihatmanto
- Communications Society Chapter (COM19): Dr. Rina Pudjiastuti.
- Circuits and Systems Chapter (CAS04): Prof. Dr. Soegijardjo Soegijoko
- Engineering in Medicine and Biology Chapter (EMB18): Prof. Dr. Soegijardjo Soegijoko
- Solid State Circuits Society Chapter (SSC37): Dr. Trio Adiono
- Joint chapter of Microwave Theory / Antennas & Propagation (MTT17/AP03): Prof. Prof. Mudrik Alaydrus
- Joint Chapter of Aerospace & Electronics Systems Society / Geoscience & Remote Sensing Society (GRS29/AES10): Dr. Arifin Nugroho
- Joint Chapter of Control System Society / Robotics & Automation Society (CS23/RA24): Dr. Endra Joelianto
- Joint Chapter of Signal Processing Soc / Electron Devices Soc / Education Soc / Power Electronics Soc / (SP01/ED15/E25/PE31): Dr. Pekik Argo Dahono
- Power and Energy Society (PES31): Dr. Sarjiya

### ❖ **Section Highlights**

During the 28-year history as an Indonesia professional organization, the IEEE Indonesia Section had experienced and successfully navigated through several periods of time that technological progress is a considerable driving force behind economic growth, citizen engagement and job creation of the country, especially in Indonesia.

Information and communication technologies, in particular, are reshaping many aspects of the world's economies, governments and societies. As a part of the global knowledge societies, IEEE Indonesia Section takes its active roles to public officials, businesses and citizens, to work together to harness the transformative power of ICTs to make services more efficient, catalyze economic development and strengthen social networks.

For the IEEE Indonesia Section 2015 has been a year of growth, with IEEE Indonesia Section achieving several global achievements, such as 1,576 total member with 30.8% growth rate. This tremendous membership growth has made the IEEE Indonesia Section to become a Large Section. The IEEE Indonesia has been awarded 2015 Outstanding Section award from the IEEE Headquarter for its membership recruitment performance. Other achievements include 12 new SB formation, 7 new SB Chapters and WIE AG formation, 8 new Chapters formation (1 approved and 7 in approval process), 32 annual International conferences indexed by IEEE Xplore, number #4 worldwide Member get Member activities, third winner of IEEE Student, Young Professional, and Women in Engineering Region 10 Asia Pacific Congress 2015.

Moreover, in year 2015, the IEEE Indonesia Section successfully bid for several international flagship IEEE conferences, such as TENSYP 2016, APCC 2016, WPMC 2017 and also prepared the bid for GlobeCom 2020 to be hosted in Indonesia.

As an organization, IEEE Indonesia Section has weathered many different types of storms. However, the organization image has never been stronger or even more relevant. The pipeline of organizational activities and breakthrough of technological innovation has never been more robust. And our long term commitment to delivering an elevated and highest contribution to Indonesian people is unwavering.

IEEE Indonesia Section is continuing to develop strategic alliances with universities, including universities outside Java Island in eastern part of Indonesia, government, and other ICT organizations. Section's strategic planning for IEEE activities covers Technical Activities, Education Activities, Industry Relation, Professional Activities, Conference Coordination, Membership Development, Student Activities and Women in Engineering. IEEE Indonesia Section also continues to align and strengthen active contribution in research, innovation and public policy related to the technology.

IEEE Indonesia Section also continues to play a solid role to provide and contribute information, data and advice to the Indonesia Ministry of Information and Communication Technology (MIC) related to their preparation to develop new regulation or Ministry decree in ICT, such as regulation and ministry decree related to Broadband Wireless Access (BWA), Short Range Device (SRD), Near Field Communications (NFC), TV Digital and Internet Transaction Electronics (ITE).

The education, technical and social activities that has been organized by IEEE Indonesia Section are now routinely on its agenda and contribute towards updating of information about organization, roadmap of technologies and dissemination of latest ITC technology to the members and also to ICT stakeholders in Indonesia.

Hence, IEEE Indonesia Section being a professional society expects to elevate its vital role for strategic national positioning toward an IEEE as one of the national assets. IEEE Indonesia Section is in the midst of continuing organizational development progress, enhancing its national visibility and combining unique position among Indonesian professional communities. The IEEE Indonesia Section also continues to make profound social impact in the communities that it serves around the country, and will continue to do so today and into the future.

### ❖ **Major Events (International, National)**

Most major events of IEEE Indonesia Section were organized with the collaboration of Chapters, Student Branches and other organization such as Universities, Industrial or Government institution. The IEEE Indonesia Section continues to provide support and

facilities to all Chapters and Student Branches to make it easier for them to arrange their activities and events. These events usually consist of:

- Officer meetings, coordination (Administrative)
- Technical Activities: Training, Workshop, Seminar, Focus Group Discussion (FGD)
- Education Activities: About IEEE, About Student Branch, by Law meeting, How to Manage
- IEEE Conferences Social Activities: General Lectures, ICT Regulation discussions
- Professional Activities,
- Distinguish Lecturer Program (DLP)
- Meeting with other organization

In year 2015, there were a total 35 activities conducted by the IEEE Indonesia Section, which can be categorized as:

- Professional = 11 Activities
- Technical = 10 Activities
- Nontechnical = 10 Activities
- Administrative = 4 Activities



Figure 1. IEEE Indonesia Section Activities

## 1. IEEE Indonesia Section Member Gathering 2015

IEEE Indonesia Section arranged the annual IEEE Indonesia Section Member Gathering on 15 Feb 2015 and 23 Jan 2016. The second event invited the entire members to meet, collaborate and interact with each other. There were 78 participant in this event, including 75 members, consist of IEEE Indonesia Section Life Senior Member, Life Member, Senior Member, Affiliate Member, Associate Member, Member, Graduate Student Member, and Student Member, The Gathering was held at Universitas Bina Nusantara Northumbria FX Campuss, Jakarta Indonesia.

## **2. IoT Seminar Universitas Hasanuddin Makasar**

Universitas Hasanuddin Makasar, invited IEEE Indonesia Section to participate and give support in the National Seminar Teknik Informatika SNATIKA 2015. The event was held on 5th Dec 2015, and was attended by 142 participant including 7 IEEE Members. The keynote speakers were Ir. Satriyo Dharmanto, M.Si. IEEE Indonesia Section Chair and Dr. Indrabayu, ST, MT, M. Bus. Sys, one of the lecturer and researcher of Universitas Hasanuddin. The Seminar held a discussion about the Internet of Things (IoT) for Better Life, development and Implementation in Indonesia and also about traffic monitoring to increase better discipline in the traffic and to create a mental revolution in traffic habits.

## **3. IoT Seminar and Workshop in Collaboration with Automotive Industry**

In collaboration with Industry, Toyota Motor Manufacturing Indonesia (TMMI) and IEEE Indonesia Section organized a National Seminar and Workshop about IoT. The Seminar and tutorial was open for public and also there was an IoT Competition for students, sponsored by TMMI. The seminar was held in Bali on 8th Nov 2015, which was attended by about 56 participants, including students from several universities in Indonesia. The workshop discussed the technical and social aspects of IoT.

There were several speakers who presented activities in the IoT field. The first speaker was Ir. Indra Chandra Setiawan M.Sc, from Toyota Motor Manufacturing Indonesia who talked about IoT implementation in automotive. Prof. Soo Young Shin from Kumoh National Institute of Technology also spoke about the Smart Green Technology for Developing Smart City.

## **4. Indonesia Student Branch Congress (ISC)**

IEEE Indonesia Section organized an Indonesia Student Branch Congress (ISC) on 24 October 2015. This event is organized annually. This year the ISC has been organized by SB Universitas Gadjah Mada Yogyakarta. Twelve Student Branches participated in the ISC2015 with 40 students and around 12 guests attending the event. There were four invited speakers who provide presentations about the development and implementation of IoT in Indonesia.

The first speaker Ir. Satriyo Dharmanto, M.Si. IEEE Indonesia Section Chair, gave a talk on the topic “IoT for Better Life”. The second speaker Selo Sulisty, ST, MT, Ph.D a lecturer of UGM Yogyakarta, gave a presentation on the topic of “IoT Implementation for Smart City”.

## **5. International Conference on Computer, Control, Informatics and Its Application IC3INA**

Indonesia Institute of Science (LIPI) in collaboration with IEEE Indonesia Section arranged an International Conference on Computer, Control, Informatics and Its Application IC3INA, on 06 Oct 2015, which was attended by about 120 participants, including 12 IEEE members. It is an Annual conference with the participation from universities, government and industry. The Keynote speaker was Dr. Basuki Jusuf Iskandar, the Head of Research and Development, the Ministry of Communication and Informatics, Republic of Indonesia, who talked about Indonesian Telecommunication Strategy.

## **6. IEEE Technical Activity - A Visit to Solar Power Energy Plant, Sumba**

IEEE Indonesia Section organized and provided assistance for a visit to the Solar Power Energy Plant for remote communities in Sumba, Nusa Tenggara Province in the Eastern part of Indonesia. Together with the local government’s assistance, the Indonesia Section provided technical information to the visitors to understand how the Solar Power Plant is run and maintained. The visit was held on 06 Jul 2015 with 16 participants.

## **7. IEEE Technical and Education Meeting at Janabadra University**

The meeting entitled "Pervasive Computing and Why to Join IEEE" was held at Janabadra University on 17 April 2015. The event was organized to promote the IEEE activities by giving the technical presentation on Pervasive Computing and providing information on the IEEE student membership and its benefits. The meeting also covered the IEEE Student Branch and its benefits, description on application form and online membership registration and finally the Question & Answer Session.

Dr. I Wayan Mustika, ST, MT, from IEEE Indonesia Section gave the technical presentation on the topic “Pervasive Computing and Why to Join IEEE”. The event was attended by 35 non IEEE members.

## **8. IEEE Technical and Education Meeting at STTN-BATAN: How to Write a Quality Technical Paper**

The technical and educational meeting under the topic “How to Write a Quality Technical Paper, IEEE Membership and Benefit” was held in Yogyakarta on 15 April 2015. The



event was held to promote the IEEE activities in Indonesia and to increase the number of IEEE members by giving a technical presentation and providing information about the IEEE student membership and its benefits.

Dr. I Wayan Mustika, ST, MT, from IEEE Indonesia Section spoke on the topic “How to Write a Quality Technical Paper”. The event was attended by 20 non IEEE members.

## **9. IEEE Technical and Educational Meeting How to Manage IEEE Conferences**

IEEE Indonesia Section, in collaboration with Indonesia Science Institute (LIPI), and Telkom University Student Member, organized a Technical and Educational event. The program consisted of: introduction to IEEE, introduction to LIPI, Technology for Humanity, Inspiring our Leaders of Tomorrow, How to Manage IEEE Conference and IEEE Conference Tools. The event was held at Bandung on 28 March 2015, with participant about 65 participant including 45 IEEE members, was also has organized presentation of member gathering of Aerospace & Electronic System Society and GeoScience & Remote Sensing Society and also presentation from Consumer Electronic Society and Photonic Society.

The first speaker Yanu Endar Prasetyo, M.Si, from the Indonesia Institute of Science (LIPI), gave a presentation about Technology From/with/At for Humanity. The second speaker was Arief Hamdani Gunawan, ST., M.Si, from the IEEE Indonesia Section Advisory Board, who gave a talk entitled “Inspiring our Leaders of Tomorrow”.

## **10. Workshop on Job Career and Scholarship and Introduction to IEEE & Student Activities**

Udayana University Student Branch invited IEEE members and students to a workshop on Job Career and Scholarship for Better Future and Introduction to IEEE & Student Activities at Udayana University campus, Denpasar, on 17 March 2015. The aim of this event was to give a good understanding to students to prepare themselves for their career upon graduation from University, either by finding a job or getting a scholarship for further education. The second session of the workshop presented the introductory information on IEEE as the largest engineering society, the technical societies within IEEE, IEEE Indonesia Student Branch, membership benefits, student activities, and a questions & answers session. The event also targeted to give more understanding to the student members and candidate of student members about how is the benefit become IEEE member. The event was attended by about 108 participants including 30 IEEE members.

## **11. IEEE Technical and Education Meeting at UGM Yogyakarta**

IEEE Indonesia Section in collaboration with Gadjah Mada University, organized a Technical and Educational event, on 14 March 2015, which consist of the activities of Member gathering, Public Lecturing on Satellite Regulation in Indonesia, Introduction of IEEE, Managing Section and Chapters and preparation for forming new society Chapters such as of Power and Energy Society, Photonic Society, Intelligent Transportation System Society, Vehicular Technology Society, Oceanic Society, Broadcasting Society, Aerospace Society, Geoscience and Remote Sensing and Consumer Electronics Society. The event was attended by about 60 attendees, including IEEE members, student members and non-members from government, industry and universities.

The Speaker was Gerson Damanik, S. KOM, MT from The Ministry of Communication and Information Republic Indonesia, who spoke about the Satellite Regulations in Indonesia.

## **12. IEEE Indonesia Section POCO Panel of Conference Organizers**

In year 2015 and 2016, there has been a significant increase in terms of numbers of papers and Universities that organize the conference with technical co-sponsorship from IEEE Indonesia that has resulted in the increase of number of members in IEEE. IEEE Indonesia Section has about 30 annual International Conferences. To make all of the conferences to comply with the IEEE Meeting Standards, we organized the 2nd Indonesia Panel of Conference Organizers (The 2nd Indonesia POCO) on 28 Oct 2015 in Yogyakarta. This event is scheduled to be organized every year, with most of the participants to include General Chairs and/or Coordinators of the conferences. We are make coordination with Mr. Kevin Hanft MBA, Conference Organizer Engagement and Education, IEEE Meetings, Conferences & Events and also Mr. John Tracy. The 2015 event was attended by 30 participant, including 28 IEEE Indonesia Section members.

## **13. IoT Seminar Sekolah Tinggi Telematika Telkom Purwokerto**

IEEE Indonesia Section was invited by Sekolah Tinggi Telematika Telkom Purwokerto on 13 Dec 2015, to enhance the awareness of lecturers and students about the Internet of Things (IoT). The Keynote Speaker was IEEE Indonesia Section Chair, who presented and shared information about the IoT technology and its development and implementation in Indonesia. This event was attended by about 295 participants, including 6 IEEE Indonesia Section members.

## **14. Flying Robotic Contest Yogyakarta**

Together with the Industries and Universities, IEEE Indonesia gave support for Flying Robotic Contest Yogyakarta 2015. There were 213 participants who take part in 71 teams from 29 Indonesian universities, compete in the KRTI 2015 to be held from 17-20 September 2015. Some of the IEEE members served as the Jury members for the competition.



## ❖ Major Chapter Activities

In IEEE Indonesia Section, there are 6 Chapters and 4 Joint Chapters which have been enthusiastically organizing several activities, in the category of Professional, Technical, Non-Technical and Administrative activities.

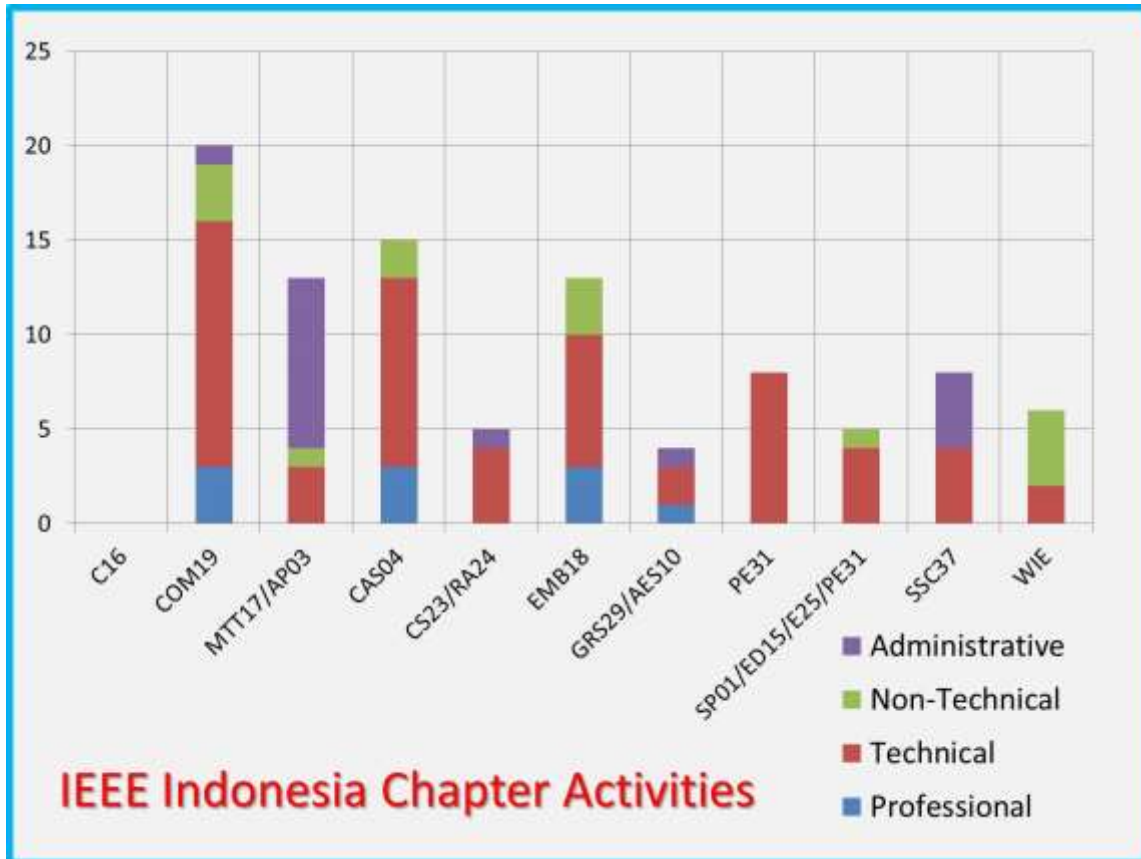
Most of the Chapter activities were conducted in collaboration with others, such as National and International University, Industrial and the Government. Most of the activities were also in collaboration with IEEE Indonesia Section.

The active Chapters in IEEE Indonesia Section are: Computer Society (C16), Communication Society (COM19), Circuits and Systems Chapter (CAS04), Engineering in Medicine and Biology Chapter (EMB18), Solid State Circuits Society Chapter (SSC37), Joint Chapter of Microwave Theory / Antennas & Propagation (MTT17/AP03), Joint Chapter of Aerospace & Electronic Systems Society / Geoscience & Remote Sensing Society (GRS29/AES10), Joint Chapter of Control System Society / Robotics & Automation Society (CS23/RA24), Joint Chapter of Signal Processing Society / Electron Devices Society / Education Society / Power Electronics Society / (SP01/ED15/E25/PE31), Power and Energy Society (PES31) and Women In Engineering (WIE).

**IEEE Indonesia Chapter Activities Table**

No.	Chapter/Activities	Professional	Technical	Non-Technical	Administrative	Total
1	<b>C16</b>	0	0	0	0	0
2	<b>COM19</b>	3	13	3	1	20
3	<b>MTT17/AP03</b>	0	3	1	9	13
4	<b>CAS04</b>	3	10	2	0	15
5	<b>CS23/RA24</b>	0	4	0	1	5
6	<b>EMB18</b>	3	7	3	0	13
7	<b>GRS29/AES10</b>	1	2	0	1	4
8	<b>PE31</b>	0	8	0	0	8
9	<b>SP01/ED15/E25/PE31</b>	0	4	1	0	5
10	<b>SSC37</b>	0	4	0	4	8
11	<b>WIE</b>	0	2	4	0	6

- i.) For details of each item, please refer to the Chapter annual report in the respective Chapter AGM.
- ii.) The figures above are based on the L31 reported statistics from <https://meetings.vtools.ieee.org/main> as of 31st December 2015.



**Figure 2. IEEE Indonesia Chapters' Activities**

### a) Communication Society, COM Chapter

#### 1. IEEE DLT - Prof John R. Long, Future Directions for Silicon Radio Frequency Electronics

This Distinguished Lecturer program, supported by Indonesia Communication Society Chapter and School of Electrical Engineering and organized by the IEEE SB Telkom University, was on the topic “Cooperative Service Management in Healthcare Sector: Emerging Trends and Future Challenges”.

Growth in mobile communication and computing technologies over the past two decades has been driven by innovations in system architectures, software technology, and silicon integration. Examples of adaptive, wideband, and scalable high-frequency electronic designs relevant to emergent 5G (fifth-generation wireless) and IoT (Internet of Things)

applications were described in this talk. Wideband, mm-wave technologies may enable the next generation of wireless infrastructure. A representative example is a recently developed mm-wave all-digital phase-locked loop ADPLL with self-calibration circuits in deep-submicron CMOS. The ADPLL performs autonomous calibration and closed-loop DCO gain linearization, and achieves excellent in-band/out-of-band phase noise performance. Scenarios for improving health care often require low-power radios to monitor patients remotely. In the second example, a low-power, autonomous FM ultra wide band transceiver and power management unit that transfers data reliably at 100kbit/s and includes full on-chip digital calibration of the transceiver was described. Finally, fibre-optic technologies in the internet backbone are migrating towards coherent modulation schemes to increase data throughput. A silicon IC driver capable of producing the 6Vp-p output required to drive a Mach-Zehnder optical modulator was presented. Based on a distributed amplifier architecture, the novel all-digital input interface enables sub-10ps rise/fall times on a silicon IC platform capable of full transceiver integration.

This event was organized in Bandung on 14 Dec 2015, attended by about 22 participants including IEEE Indonesia Communication Society and SB members. The speaker was Prof John R. Long, Research Chair, University of Waterloo, Canada.

## **2. IEEE International Conference on Communication, Networks and Satellite (ComNetSat 2015)**

The 2015 IEEE International Conference on Communication, Networks and Satellite (COMNETSAT 2015) is the fourth years conference organized by ComSoc Indonesia Chapter, to address current state of the technology and the outcome of the ongoing research in the area of Communications, Networks and Satellite Systems. Articles of interdisciplinary nature were particularly welcome. COMNETSAT 2015 covered theory, design and application of computer and communication, networks and satellite systems. During recent years there has been an impressive increase in the use of networked applications and networks are now key resources in any information system configuration. Wireless and fixed line networks complemented by a growing range of mobile devices are having a significant impact on the way we run our lives and our business. There were 23 accepted papers and presented from 51 submitted papers.

This event was organized in Bandung on 10 Dec 2015, attended by about 23 participant including IEEE Indonesia Communication Society and SB members.

The keynote speaker was Mr. Admiral Dasrin, VP of PT. Telekomunikasi Indonesia and Dr. Makoto Murakami, NTT Japan. They talked about technologies and standardization of future highly-flexible and large-capacity telecom carrier networks based on the soft.

## **3. IEEE International Conference on Aerospace Electronics and Remote Sensing Technology (ICARES 2015)**

ICARES 2015 was a platform for disseminating timely information both in the sensor technology, UAV, satellites technology, communications techniques, control systems, Launch vehicles as well as general information processing notably those applicable for remote sensing technology. The event is expected to become a unique opportunity for the AES, GRS and other IEEE Chapters to exchange views and disseminating new trends and advances in the respected fields. There are 36 accepted papers and presented. This event was organized in Bali on 03 Dec 2015, attended by about 36 participants including IEEE Indonesia Section, IEEE Indonesia Communication Society and SB members.

The keynote speaker was Dr. Diane L Evans NASA Jet Propulsion Laboratory's Director for the Earth Science and Technology Directorate and Prof. Dr. Hans Martin Braun Stuttgart University, RST Radar System Technik GmbH, Salem, Germany.

#### **4. DLT Prof Pradeep Kumar Ray, Cooperative Service Management in Healthcare Sector Emerging Trends and Future Challenges, Universitas Telkom**

This Distinguished Lecturer Program supported by Indonesia Communication Society Chapter and School of Electrical Engineering was organized by IEEE SB Telkom University in Bandung on 22 October 2015. The Speaker was Prof Pradeep Kumar Ray, Director WHO Collaborating Centre on eHealth Asia-Pacific ubiquitous Healthcare Research Centre (APuHC) at the University of New South Wales, Australia. The talk was entitled "Cooperative Service Management in Healthcare Sector: Emerging Trends and Future Challenges".

The event was attended by about 200 participant including IEEE Indonesia Communication Society and SB members.

#### **5. Tutorial and Keynote Series at International ApWiMob & ICCEREC, Day Two**

The tutorial was given by Prof. Maryline Helard, Matthieu Crussière, Yvan Kokar on "Application of Time Reversal Principles to Wireless Communications: from Single User SISO to Multiple User Large Scale MIMO Scenarios"

Within the wide landscape of signal processing techniques for wireless communications, Time Reversal (TR) is today considered as one of the very promising strategies for green communications and multi user multiplexing in particular thanks to its good spatial and temporal focusing properties. Firstly introduced for ultrasound and underwater acoustic waves, TR has more recently been applied to electromagnetic waves in the context of wireless communications. TR turns out to be a simple and efficient pre filtering technique suitable for low power transmissions, multiple user discrimination and also leads to low complexity receivers. In this tutorial, to provide a comprehensive and in depth over view on the TR paradigm, from theoretical aspects to practical issues. We will first give the

necessary background to understand the physical nature of the TR concept, based on wave propagation and Maxwell theory, and will then give and discuss the analytical and simulation tools that have to be used from a digital communication and signal processing point of view in order to quantify the performance of TR, both in terms of system capacity and bit error rate. On this basis, a critical analysis of the state of the art of TR for wireless communications will be exposed, from UWB (Ultra Wideband) systems to multi antenna narrow band systems. We will address various system architectures from a low to a large number of transmit antennas and for single user and multiple user transmission scenarios. Throughout this tutorial, we will be giving the latest insights on TR, highlighting the interrelations or the possible hybridizations with other very popular schemes such as multicarrier modulations, multiple antenna systems, beamforming or spatial multiplexing, and massive or large scale antenna systems. We will provide all the material to better understand the potential of TR in the perspective of the design of future wireless communication networks. The session will end with the presentation of a proof of concept study, exhibiting the technical challenges for the implementation of TR based schemes in real systems.

This event was organized in Bandung on 28 August 2015, attended by about 180 participants including 45 IEEE Indonesia Communication Society and SB members.

The two speakers, Prof. Maryline Helard and Dr. Matthieu Crussière, talked on the topic “Application of Time Reversal Principles to Wireless Communications : from Single User SISO to Multiple User Large Scale MIMO”.

## **6. International Conference on Control, Electronics, Renewable Energy, and Communications (ICCEREC 2015)**

ICCEREC provides an international forum for researchers, academicians, professionals, and students from various engineering fields and with cross-disciplinary interests in control, industrial automation, bio-medical electronics, renewable energy, and machine-to-machine communications to interact and disseminate information on the latest developments. The conference included technical sessions, tutorials, and technology and business panels. ICCEREC 2015 presented 49 accepted papers from 90 submitted papers. This event was organized in Bandung on 27 August 2015, attended by about 49 participant excluding IEEE Indonesia Communication Society and SB members.

The 1st Keynote Speaker was Mr. Abdus Somad Arief from PT. Telekomunikasi Indonesia and the 2nd Speaker was Prof. Elena Gaura, Coventry University, United Kingdom, talked about Smart Sensing and Wireless Sensor Networks

## **7. Tutorial and Keynote Series at International ApWiMob & ICCEREC, Day One**



Tutorial 1: Prof. Elena Gaura and James Brusey, "Developing Wireless Sensor Networks Applications Based on Design Patterns"

This tutorial focuses on a generalized approach to developing wireless sensor networks applications based on design patterns. Specific design patterns covered include Filter, Event Detector, Priority Buffer, and Non-preemptive Scheduler. This development then leads into a series of example applications including the development of L-SIP an innovative generic compression approach for low-powered WSN systems.

Tutorial 2 : Dr. Eng. Khoirul Anwar, "Coding Theory and Signal Processing for Future Wireless Networks", from School of Information Science, Japan Advanced Institute of Science and Technology (JAIST)

This tutorial provides the tutorial takers with the knowledge about basic coding theory and signal processing for wireless communication networks. The tutorial starts with the basic coding techniques, e.g., convolutional codes and low-density parity check (LDPC) codes. An analysis tool, Extrinsic Information Transfer (EXIT) chart, is also introduced due its simplicity to analyze the convergence property of the suitable codes. The tutorial then combines the concept of coding and signal processing for multi terminal networks. An example of application is the chained turbo equalization where the iterative decoding is applied to solve the interference problem due the insufficient or even the absent of guard interval. The coding technique is then extended to describe the relationship between the Slepian-Wolf (SW) theorem and the cooperative wireless networks. The correlation can be further utilized to reduce the energy consumption for reliable data transmission from multiple sources to a common receiver or to multiple destinations. It is also emphasized in the tutorial that this system concept makes it possible to design the cooperative communication systems allowing intra-link error. The tutorial is then finalized with an application of coding theory for future super dense networks. The technique support the Internet of things (IoT) assuming massive of devices are communicating each other via the help of a relay.

This event was organized in Bandung on 27 August 2015, attended by about 180 participants including 45 IEEE Indonesia Communication Society and SB members.

## **8. Asia Pacific Conference on Wireless and Mobile (APWiMob 2015)**

APWiMob is international event in Asia Pacific designed for audience working in the wireless communications and mobile technology communities. As the Asia Pacific conference focusing on wireless and mobile technologies, APWiMob is very suitable for wireless communications researchers, industry professionals, and academics interested in the latest development and design of wireless systems and mobile technologies. Sponsored by the IEEE Communications Society Indonesia Chapter, APWiMob has a strong foundation of bringing together industry and academia. The conference included technical sessions, tutorials, and technology and business panels. Papers were in all areas

of wireless communications and mobile technologies, networks, services, and applications. APWiMob 2015 presented 53 accepted papers from 100 submitted papers

This event was organized in Bandung on 27 August 2015, attended by about 53 participants excluding IEEE Indonesia Communication Society and SB members.

The 1st Keynote Speaker was Mr. Abdus Somad Arief from PT. Telekomunikasi Indonesia and the 2nd Speaker was Prof. Elena Gaura, Coventry University, United Kingdom, who talked about the Smart Sensing and Wireless Sensor Networks.

## **9. One Day Training on Towards Space 2.0 Era**

This one day training program was about: Waveform Design Solution for EHF Broadband Satellite Communications, Cognitive Spectrum Utilization in Ka-Band Multibeam Satellite Communications, IP Mobile Multicast over Next Generation Satellite Networks, Contact Graph Routing in DTN Space Networks Overview, Enhancements, and Performance, Integration of Satellite and LTE for Disaster Recovery, Software Defined Networking and Virtualization for Broadband Satellite Networks.

This event was organized in Bandung on 13 Jun 2015, attended by about 16 participants including 10 IEEE Indonesia Communication Society and SB members.

The 1st Speaker was Mr. Satriyo Dharmanto, Chair of IEEE Indonesian Section who talked about IP Mobile Multicast over Next Generation Satellite Networks and the 2nd Speaker was Dr. Arifin Nugroho, Chair of AESS&AGRSS Joint Society Chapter.

## **10. International Broadband and Photonics Conference (IBP 2015)**

IBP is an international event designed for audience working in the photonics technologies and broadband communications communities. As the international conference focusing on photonics and broadband technologies, IBP is very suitable for photonics and broadband researchers, industry professionals, and academics interested in the latest development and design of photonics and broadband. Sponsored by the IEEE Communications Society Indonesia Chapter, IBP has a strong foundation of bringing together industry and academia. IBP 2015 presented 18 accepted papers from 35 submitted papers.

This event was organized in Bali on 23 April 2015, attended by about 18 participant excluding 10 IEEE Indonesia Communication Society and SB members.

The Keynote Speaker Dr. Tetsuya Miyazaki, Director of Photonic Network Research Institute NICT Japan, is talked about Enabling Technologies for Future Sustainable Optical Network.

## **11. Asia Pacific Conference on Multimedia and Broadcasting (APMediaCast 2015)**

APMediaCast 2015 organized three scientific tracks, i.e., Multimedia, Signal Processing and Broadcasting. We have several reasons for choosing the tracks areas as follows: 1) the research in the area of Multimedia, Digital Signal Processing and Broadcasting has grown much faster over the last 5 years. 2) The research in the areas has proven a significant contribution to many creative media industries in many countries, including Indonesia. APMediaCast 2015 presented 19 accepted papers from 34 Submitted papers.

This event was organized in Bali on 23 April 2015, attended by about 18 participants excluding 10 IEEE Indonesia Communication Society and SB members.

The Keynote Speaker Dr. John Kjellemo, Technical Director Advance Solution APAC Conax Asia-Pacific, talked on the topic OTT-TV and Broadband Development in APAC Territories.

## **12. National Seminar of Next Generation Mobile Network's Challenge Toward Indonesia Digital Area by Universitas Telkom**

This event was in collaboration with one of the laboratories in Telkom University, namely Mobilecomm Laboratory. This event discussed technological development and preparation of Indonesia in facing the digital era that is now being developed around the world. This event was organized in Bandung on 11 April 2015, attended by about 150 participants including 33 IEEE Indonesia Communication Society and SB members.

The 1st Speaker was Mr. Ridwan Kamil, Mayor of Bandung City, State/Province Jawa Barat. The 2nd Speaker was Rudiantara, Minister of Communication and Information Republic of Indonesia.

## **13. IEEE DLT on Photonic Network hosted by Universitas Telkom, Bandung- Indonesia**

The annual event created by the IEEE Indonesia Section in collaboration with the IEEE Student Branch Telkom University, discussed the development of optic-based communications systems in the world and in Indonesia. This event invited a professor from Japan who is competent in the field of Photonic Network. This event was organized in Bandung on 11 April 2015, attended by 74 participant including 17 IEEE Indonesia Communication Society and SB members.

The 1st Speaker was Dr. Tetsuya Kawanishi, Director of NICT Japan. And the 2nd Speaker was Dr. Atsushi Kanno, Director of NICT Japan.

## b) **MTT17/AP03 Indonesia Chapter**

### 1. **National Seminar on Microwave, Antennas and Propagation (SMAP) 2015**

This domestic seminar was held on 19-20th November 2015 in Makassar city, South Sulawesi, eastern part of Indonesia, as a fourth Seminar on Microwave, Antennas and Propagation (SMAP 2015) in Indonesia, co-sponsored by MTT/AP-S Indonesia Chapter. The participants of the seminar were around 60 participants with 3 keynote speeches and some parallel sessions. Opening ceremony was delivered by the General Chair of SMAP 2015, Chair of MTT/AP-S Indonesia Chapter and Faculty Dean and Rector of host university (i.e. Hasanuddin University). All of the representative delivered speeches for encouraging people to participate in this annual technical meeting and also promoting IEEE activities in Indonesia. The activities are basically aimed to spread the scientific knowledge to everyone (academic staffs, company professionals, government officials, and scientists) to take an interest in microwave theory and technology as well as antennas and propagation applications. This seminar invited three keynote speakers from Indonesian Institute of Technology (a.k. ITB), government representative from Ministry of Communication and Information, and domestic industry experts. The first speaker talked about antenna and access technology development progress in Indonesia and future issues to effectively trigger communication industries growth in Indonesia. The second speaker addressed standardization in Indonesia for smart RFID card. The last speaker delivered a predictive perspective about ICT research in Indonesia and its challenge and chance. After this symposium on first day, there was also a workshop held on 20 November in the same event series. The workshop was held to train some students about how to model and design some devices and circuit with a CAD tool. This seminar was attended by 35 Guest Attendance, including 25 IEEE Member and Student Member.

The 1st Speaker is Prof. Adit Kurniawan from Bandung Institut of Technology, who speak about Research on Antenna and Wireless Access Technology for supporting Future Cellular Communication and the 2nd Speaker is Mr. Nur Akbar Said from Ministry of Communication and Information, Republic of Indonesia

### 2. **Workshop on Antenna Measurement**

This workshop was held on 4th November 2015 at Universitas Indonesia, Depok city. The participants were limited to 10 people for convenience capacity. Most of them were not IEEE members in order to attract their awareness about IEEE MTT/AP activities. The workshop was full-day course, which was conducted in Indonesian language by speaker from academician on Antenna measurement Dr. Fitri Yuli Zulkifli. The delivered topics talked about basic parameters such as reflection coefficient, impedance, radiation pattern, and gain measurement. As a result, all participants seem to have new

knowledge and experience about how to measure in desired room/chamber, since they haven't knowledge about measurement procedure background.

The speaker was Dr. Fitri Yuli Zulkifli from Universitas Indonesia, who spoke about Antenna Measurement.

### **3. Distinguished Lecture by Prof Qing Huo Liu and Dr. Sudhakar Rao**

In these lectures, two speakers discussed one topic each. Prof. Qing Huo Liu, talked about Progress and Challenges in Microwave Imaging and Microwave Induced Thermoacoustic Tomography. Dr. Liu shared about challenges in achieving a microwave breast imaging system, and ways to improve the resolution of such imaging modality. He also presented the recent progress in microwave induced thermoacoustic tomography (MITAT) that combines microwave and ultrasound modalities. Dr. Sudhakar Rao's talked about recent developments in the areas of antenna systems for FSS, BSS, PCS, & MSS satellite communications. Advanced antenna system designs for contoured beams, multiple beams, and reconfigurable beams were also discussed. In the end of his talk, he quoted that the engineers will be exposed to typical requirements, designs, hardware, and test methods for various satellite antenna designs. Regarding the participants, most of them were professionals even though they were not IEEE members. Other participants were students including IEEE student members and non-members aimed to encourage them getting interested on antenna and microwave engineering fields.

This Distinguished Lecturer, Technical Talks was attended by 40 guests, including 20 IEEE member and students.

The 1st Speaker was Prof. Qing Huo Liu from Duke University, USA who discussed about Progress and Challenges in Microwave Imaging and Microwave Induced Thermoacoustic Tomography.

The 2nd Speaker was Dr. Sudhakar Rao from Northrop Grumman Aerospace Systems, CA, USA, who spoke about Advanced Antenna Systems for Satellite Communication Payloads.

### **4. Social Gathering IEEE MTT/AP Indonesia Chapter**

In this event, we invited Prof Monai from Thailand for joining us in Bandung city, West Java. We held gathering in Indonesian Science Institute at Bandung. Prof Monai talked about AP-S activities in southeast Asia and we shared each other's Chapter activities including research progress in the past and the future for improving beneficial activities for members and non-member as well, expanding membership to more people join to our Chapter.



This IEEE Chapter activities and social gathering was held on 25 May 2015, attended by 20 guests, all were IEEE member and students.

The 1st Speaker was Prof. Monai Krairiksh, from King Mongkut's Institute of Technology Ladkrabang (KMILT), who spoke about IEEE AP-S Activities in Asia especially in South East Asia Region.

The 2nd Speaker was Prof. Eko Tjipto Rahardjo from Universitas Indonesia who spoke about current and future activities of IEEE AP/MTT-S Indonesia Chapter.

## c) **SSC 37 Indonesia Chapter**

### 1. **Electronics Design Contest (EDC) 2015**

The Solid-State Circuits Society of the Institute of Electrical and Electronics Engineers (IEEE SSCS) Indonesia Chapter and Bandung Institute of Technology (ITB) successfully held 1st Indonesia IEEE SSCS Electronics Design Contest, which consists of electronics design contest, seminar, panel discussion, and exhibition under the theme "Smart Device and System"

The objective of these events:

1. Stimulate Creativity and Innovation for Students
2. Apply Knowledge in Product Development
3. Explore State of the Art of Technology

There are two categories with the relevant topics for the electronics design contest:

1. VLSI (Topic: Sound-Source Seeker)
2. Embedded System (Topic: Smart Phone Docking System)

This contest had successfully collected 20 design proposals from various universities across Indonesia. Some of them are Bandung Institute of Technology, Indonesian Computer University, Lampung University, State Polytechnic of Malang, State Polytechnic of Batam, etc.

This event was also supported by several companies such as PT. Qimtronics, Advantest, PT. PCI, etc.

This event was held in Bandung on 15 Dec 2015, attended by 80 attendance including 30 IEEE Member and SB member.

## 2. 2015 IEEE SSCS Distinguished Lecture Series

IEEE SSCS Indonesia Chapter will organize “2015 IEEE SSCS Distinguished Lecture Series”. The lecture will be delivered by Prof. John Long from the University of Waterloo, Canada, an expert on circuit and system design for communication. He will be giving lecture on the topic of “Future Directions for Silicon Radio Frequency Electronics” at three universities in Indonesia. The schedule for these activities are as follows:

December 14, 2015 – Telkom University, Bandung

December 15, 2015 – Institut Teknologi Bandung, Bandung

December 17, 2015 – Universitas Gadjah Mada, Yogyakarta

Everyone is invited to come and learn the state-of-the-art technology of RF transceivers.

This event was held in Bandung on 14 Dec 2015, attendance by 60 participant, including 25 IEEE Member and SB member.

## 3. The International Symposium on Intelligent Signal Processing and Communication Systems ISPACS 2015, Bali Indonesia

The International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS) is the premier networking forum of leading researchers especially from Asia-Pacific basin in the highly active fields of theory, design and implementation of intelligent signal processing and communication systems.

ISPACS 2015 was held on November 9-12, 2015 in Tropical Paradise Nusa Dua, Bali, Indonesia. The symposium presents every possibility on new technologies based on signal processing and communication. ISPACS 2015 invited 4 keynote speakers as follows:

Prof. Ryuji Kohno

Professor, Faculty of Engineering Division of Intelligent Systems Engineering, Yokohama National University, Japan. Title: Dependable Wireless Networking and Signal Processing for Advanced Medical Healthcare

Prof. Kon Max Wong

Professor, Department of Electrical and Computer Engineering, McMaster University, Canada. Title: Statistical Signal Processing: From Euclid to Riemann

Dr.Eng. Khoirul Anwar

Assistant Professor, Information Theory & Signal Processing Lab, Japan Institute of Science & Technology (JAIST), Japan. Title: 5G Super Dense Networks of Internet-of-Things: Graph-based Decoding

Prof. Akira Matsuzawa

Professor, Department of Physical Electronics, Tokyo Institute of Technology, Japan.  
Title: High Data Rate 60 GHz CMOS Transceiver Design.

This event was attended by about 150 participant including 80 IEEE members and SB members.

#### **4. Seminar on IC Testing**

SSCS Indonesia Chapter in collaboration with Gunadharma University organized seminar on a new way of IC testing. It was located in Gunadarma University campus, Jakarta. Four invited speakers came to this event to share their knowledge and experience. Three representatives of SSCS members attended this seminar and promoted the chapter's activities to the audience.

This event was held in Jakarta on 26 Aug 2015, attended by 50 attendance including 15 IEEE Member and SB member.

The 1st Speaker is Dr. Ihsan Hariadi from ITB talked about Electronics Industry Initiatives Indonesia. And The 2 nd Speaker is Mr. Pang Jeow Chow, talked about A New Way of IC Testing Advantest Singapore

#### **d) GRRS/AES Indonesia Chapter**

##### **1. Technical Gathering for promoting the AESS-GRSS Indonesia Joint Chapter**

This meeting was held at the Telkom University, Bandung Indonesia, on Saturday the 17th of January, 2015, sponsored by AESS-GRSS Joint Chapter, Indonesia Section. The meeting was also technically co-sponsored by COMSOC Chapter, Indonesia Section, and supported too by the Telkom University. The purpose of this gathering was three-folds : 1) promoting the AESS-GRSS Indonesia Joint Chapter, 2) elevate awareness on the importance of the aerospace electronics system, 3) to share on lessons learned from COMSOC Indonesia Chapter on conducting technical activities including DLT, and reminding members on upcoming election for the New Section-Chair.

Some records of the talks follow :

It is privileged for an engineer to join the IEEE, particularly at the AESS-GRSS as he or she becomes the member of more than 300,000 fine engineer members globally. Those, who work as professionals in the aerospace manufacturers, universities, research institutes, launch service companies, armament industries, imagery software industry, electronic instrumentation, etc.

The aerospace technology will be the utmost response to the set of goals being planned by Mr. Joko Widodo (Jokowi) Administrations: 1) requirement to monitor and safeguard every inch of Indonesia territory including seas and rivers , 2) To prevent hostility acts on the same territory, 3) To ascending the national education by means of Broadband Distance Learning through satellites, 4) To elevate the healthcare throughout the country.

Furthermore, the aerospace industry achievement index does correlate with the economic growth of any country. Any proliferation in the aerospace electronic activities will generally foster more new applications of the same techniques and algorithms in other branch of electronic industries such as communications, computers, processors, etc.

The AES and GRS of the IEEE, like any other IEEE branch, represent the rigorous pooling of science and technology such as physics of materials, optimal control, microprocessors, chemical engineering, probability & stochastic process, communications, algorithms, antennas and propagations, robotics, to name of few. This may epitomize the drive and passion that an engineer shall deal throughout his or her career. This event was held in Bandung on 17 Jan 2015, attended by 29 attendances including 10 IEEE Member and SB member.

The 1st Speaker is Dr. Arifin. Nugroho, talked about Why IEEE Aerospace Electronics & Geoscience & Remote Sensing Society Interesting ? from PT Citra Sari Makmur , VSAT & Terrestrial Company ; Telkom-University. And the 2nd Speaker is Mr. Wahyudi Hasbi, from LAPAN (National Aeronautics and Space Institute of Indonesia), talked about Aerospace Society.

## **2. 2015 IEEE International Conference on Aerospace Electronics and Remote Sensing Technology (ICARES 2015)**

The event was held in Kuta, Bali, Indonesia, at 3-5 December 2015, attended by 40 attendances including 30 IEEE Member. The Bali conference was the second, after the 1st one has been held in Yogyakarta, Middle Java, Indonesia, in December 2014.

Being organized by the AES-GRS Joint Chapter of IEEE Indonesia Section, the meeting had enjoyed its venue of the conference in the beautiful coast of Kuta, Bali.

The conference, having a theme of Advancing the Sensor Technology for Communications and Signal Processing, has been supported by 36 original papers in the field of aerospace-electronics and remote-sensing technology, which papers have been recognized by the IEEE Xplore:

The Conference Organizer has to congratulate the authors for their willingness to disseminate their excellent works through this conference. Such works shall contribute to the value of this two-day gathering.

In addition, the event also was supported by the invited speakers who have been so generous in sharing their vision in these strategic technologies and its applications. In particular, we have to mention the advent of 4 scientist : 1) Dr Diane L. Evans, JPL, Pasadena, on Remote Sensing Applications to Societal Benefits , 2) Prof. Hans Martin Braun, Austria, on High Country Security by Utilizing a combination of Satellite SAR and Airborne/UAV SAR, 3) two from Indonesia. Not only that their speeches and thought will show a direction how the related subjects evolve, but they have contributed largely to an excellent esteem of the conference.

The ICARES will always be in serve for professional networking, in the field of aerospace electronics and remote sensing. The conference attendees have benefitted to get together amongst researchers, and scientists coming from different schools and laboratories.

The present conference has been discussing, among others, subjects on the advancement in automatic control, communications, micro-satellite, UAV and its applications, sensors, FPGA, VLSI, RF electronics, Tracking maneuvering target, integrated mission, SAR, and RS application. What is equally encouraging is that there is a growing number of young researchers contributing into the conference.

Also the support has been given generously by the LAPAN (Indonesia Space Agency) for commonly organize this precious conference. Both organizations, AES/GRSS Joint Chapter and LAPAN, have shared the same prophecy of how importance the advancement of the conference's subjects. The AES/GRSS owes a lot to LAPAN's willingness to cooperate in this direction.

Las but not least, the ICARES 2015 was held in the mid of a greater event called: The 22nd Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-22), being held at the same venue, and organized among others, by LAPAN.

### **3. Tutorial on Space Technology: Training on Towards Space 2.0 Era**

The event was jointly organized by AES/GRS Joint Chapter and Communications Chapter of IEEE Indonesia Section, a Tutorial gathering to the benefit of IEEE Members and Student Members.

Being held at Telkom University at the City of Bandung, West Java, Indonesia, on 13 June 2015, attended by 16 participant including 10 IEEE member.

Inspired by the IEEE Comm Magazine, appeared in early 2015 titled Toward Space 2.0, the speakers at the event have taken liberty to speak on the materials being contained in the said Magazine, however with an addition material on the going concerned high



capacity satellite system, which popularly called High Throughput Satellite systems, or HTS.

#### e) CAS04 Indonesia Chapter

### 1. “Discussion and Preparation of an IEEE Sponsored International Conference”

The meeting discussed various aspects related to the preparation of an International Conference in broad area of Electrical Engineering & Computer Science to be organized by the Department of Electrical Engineering Education, UPI (Bandung, Indonesia). It is also expected that the conference could be technically co-sponsored by the IEEE. After discussing various steps in preparing & organizing a conference, the meeting suggested to: establish the conference organizing committee, develop the conference title & related information (theme, topics of interests, dates, etc.), develop the conference website, conference dates.

Further actions by the Department of Electrical Engineering Education, UPI and the “IEEE UPI Student Branch” conference are expected. More information must also be included, such as: Technical Program Committee, Advisory Committee, invited Speakers, Targeted submitted papers & accepted papers and Conference organizer’s time-line. The Organizing Committee is required to complete the necessary requirements as soon as possible for further process to request the IEEE technical co-sponsorship.

This event was held in Bandung on 23 Nov 2015, attended by 6 attendances including 4 IEEE Member and SB member.

### 2. IEEE ITI Student Branch – IEEE CAS Chapter Seminar: Introduction to Professional Society, Student activities for Hard & Soft Skills Enhancements

The IEEE CAS Chapter presented a seminar entitled “Introduction to Professional Society, Student activities for Hard & Soft Skills Enhancements”.

The seminar was organized to promote the IEEE ITI (Institut Teknologi Indonesia) Student Branch, IEEE Student Memberships, IEEE CAS Activities, IEEE Student Activities and Competitions. The IEEE, Electrical Engineering, Benefits of Hard and Soft Skills enhancements were also emphasized.

During the presentation, Question & Answer sessions were also allocated.

This event was held in Serpong Banten on 11 Nov 2015, attended by 35 attendances including 12 IEEE Member and SB member.

### **3. “2015 4th International Conference on Instrumentation, Communications, Information Technology and Biomedical Engineering (ICICI – BME 2015)”**

The “2015 4th International Conference on Instrumentation, Communications, Information Technology and Biomedical Engineering (ICICI – BME 2015)” was conducted on Monday 2 November and Tuesday 3 November 2015, in Bandung (Indonesia). It was organized by: the Institut Teknologi Bandung (ITB), Indonesian Biomedical Engineering Society (IBES), Indonesian Sensor & Actuator Systems Society (ISASS), Indonesian eHealth & Telemedicine Society (IeHTS). The Sponsors were: ITB School of Electrical Engineering & Informatics, ITB Faculty of Mathematics & Natural Sciences. The international conference was Technically Co-Sponsored by: IEEE, IEEE Indonesia EMB Chapter, and IEEE Indonesia CAS Chapter. The IEEE ITB Student Branch fully supported the preparation and implementation of the conference.

The two day conference consisted of the following: Two day Invited Keynote presentations (7 Keynote speakers), 2 Invited special session presentations, 8 Parallel Sessions (in two days) and a Workshop on “ICT for Community Health Development Case Study: Sahabat Bunda, An mHealth Supported Program for Maternal, Newborn, and Child Healthcare” (on the second day). The Day-1 (Monday 2 Nov 2015) was from 9:00 - 16:30 (Attendance = 117), and the Day-2 (Tuesday 3 Nov 2015) was from 8:30 - 16:30 (Attendance = 129).

During the two day conference, there were 7 International Invited Keynote Speakers presenting their Invited presentations and 2 Invited special session presentations. It was also noted that from the 97 received (submitted) full papers, there were 64 accepted papers or 65.97% (63 presented papers).

According to an email from IEEE on 29 January 2016, the IEEE has reviewed the conference materials and supplemental Technical Program Questionnaire for the “2015 4th International Conference on Instrumentation, Communications, Information Technology, and Biomedical Engineering (ICICI-BME)” (Conf # 36683) and determined that the proceedings from the conference will be accepted for publication in IEEE Xplore.

This event was held in Bandung on 02 Nov 2015, attended by 129 attendances including 45 IEEE Member and SB member.

### **4. IEEE CASS Seminar on “Introduction to Electrical Engineering, Professional Societies and Student Activities”**

On Wednesday 30 September 2015, the “IEEE Itenas Bandung Student Branch” and the IEEE CAS Chapter organized a seminar entitled “Introduction to Electrical Engineering, Professional Societies & Student Activities”.

The Seminar was presented by the IEEE CAS Chapter Chair, with additional Question & Answer session. The seminar was mostly attended by Students (IEEE student members and non-members) as well as some Staff Members. It was organized to promote the Electrical Engineering field, the IEEE activities & benefits, and to actively improve the Student Branch activities at Institut Teknologi Nasional Bandung.

Special Encouragements for Students (from the Department of Electrical Engineering and Department of Informatics Engineering), to actively participate in the IEEE Day and IEEEExtreme Programming Competition activities (to be organized in October 2015) were emphasized.

This event was held in Bandung on 30 Sept 2015, attended by 60 attendances including 15 IEEE Member and SB member.

## **5. IEEE CASS Seminar on “Introduction to Electrical Engineering, Professional Societies and Student Activities”**

The IEEE CAS Chapter Chair presented a seminar entitled “Introduction to Electrical Engineering, Professional Societies & Student Activities” organized by the Department of Electrical Engineering Education, UPI, the “IEEE UPI Student Branch” Bandung, and the IEEE CAS Chapter. The seminar title was organized to promote educational and research activities in “Electrical Engineering” fully supported and attended by 15 Staff Members and 4 Students of the Department of Electrical Engineering Education, UPI (Universitas Pendidikan Indonesia) Bandung. Special Encouragements for Students, to actively participate in the IEEE Day and IEEEExtreme Programming Competition activities (to be organized in October 2015) were presented. A series of Questions & Answers have also been conducted.

After the technical seminar, a social (non-formal) meeting was held during lunch time.

This event was held in Bandung on 29 Oct 2015, attended by 19 attendances including 8 IEEE Member and SB member.

## **6. Meeting with New IEEE Student Members: Introduction to IEEE Student Competition**

The meeting was held to provide various basic information on the IEEE student membership & its benefits, and Introduction to IEEE Student Competition. It was attended by 6 recently registered student members, one IEEE student member (who joined the IEEEExtreme 8.0 Programming Competition on the 18 October 2014), and one representative of the IEEE Indonesia CASS Chapter. A brief technical information describing detailed steps on how to access the IEEE Web Portal and various basic

information necessary for new members (written in Bahasa Indonesia) has been emailed to all the student members.

After presenting brief information on IEEE, IEEE Student Membership & IEEE Student Membership Benefits, as well as IEEE Student Competition, the meeting was then concluded with a Question & Answer Session.

At the end of the meeting, all the student members agreed to support a petition for forming an IEEE WIE Student Branch Affinity Group at Institut Teknologi Nasional (Itenas) Bandung. The meeting was organized in collaboration with the Dept. of Electrical Engineering and Dept. of Informatics Engineering, Institut Teknologi Nasional Bandung, and fully supported by the IEEE Indonesia CASS Chapter. The meeting was held at: the Meeting Room, Building 20, Dept. of Electrical Engineering, Itenas Bandung.

This event was held in Bandung on 30 Mar 2015, attended by 15 attendances including 8 IEEE Member and SB member.

## **7. Presentation & Discussion: How to Join IEEE Student Membership**

The meeting (Presentation & Discussion) is organized especially for students at Institut Teknologi Nasional (Itenas) Bandung, who are interested in joining the IEEE Student memberships. Among the numbers of students previously registered, 15 students from the Electrical Engineering Department attended the meeting, entitled "How to Join IEEE Student Membership".

The meeting agenda consists of: a brief presentation on IEEE Code of Ethics and Membership Benefits, Student Branch and Its Benefits, Description on application form and online membership registration. Brief Information on IEEE CAS Chapter and IEEE EMB Chapter. Question & Answer Session.

This event was held in Bandung on 16 Feb 2015, attended by 15 attendances including 1 IEEE Member and SB member.

### **f) CS23/RA24 Chapter**

#### **1. The 2015 International Conference on Automation, Cognitive Science, Optics, Micro Electro Mechanical Systems and Information Technology**

This International Conference was held in Bandung, west Java, on 29 October 2015, with invited Keynote speaker Prof. Keum Shik Hong from Pusan, South Korea.

There is mini exhibition organized in line with this event. There are 65 guest attendance, including 20 IEEE Member and Student member.

## **2. 2015 International Conference on Industrial Internet of Things**

This International conference was held in Samosir Island, Province Sumatera Utara, on 27 September 2015, with keynote speaker Prof. Young Suk Kwon, from Pusan National University South Korea with the topic Technology and Korean Traditional Costume. The 2nd speaker is Sejoon Lim, PhD, from Kookmin University, South Korea, with the topic Intelligent Transportation Systems.

There are 54 Guest Attendance including 15 IEEE Member and Student member.

### **1. Discussion on Enhancing the IEEE ITB Student Branch Activities**

The IEEE EMB Chapter Chair/ITB Student Branch Counselor, ITB SB Chair and ITB Students discussed various possible activities to improve and enhance the IEEE ITB Student Branch activities.

Questions and Issues related to past, recent and future activities conducted within the ITB Student Branch were posed and discussed. Issues on how to re-activate the existing IEEE ITB Student Branch Chapters were also discussed. Some new ideas were also raised during the discussion.

This event was held in Bandung on 7 Dec 2015, attended by 6 attendances including 2 IEEE member.

### **2. IEEE ITB Student Branch – IEEE EMB Chapter Seminar – Towards Achieving A Successful Graduate Study**

The Seminar [Part One] was aimed to discuss how to solve the problems faced by students for selection of appropriate research topics, to write and to present papers.

Four short topics were presented in the seminar, namely:

- (1).Introduction: Questions
- (2).Key Competences of University Students
- (3).The Research Student's Guide to Success (Outline)
- (4).Preparing Oral Presentation and Examination

It was planned that there will be a series of four to five lectures in the Seminar. Further details will be presented in future lectures/seminars.

This event was held in Bandung on 2 Dec 2015, attended by 12 attendances including 5 IEEE Member and SB member.



### **3. IEEE SGU Student Branch Seminar – SGU BEnnovative Idea 2015: “Biomedical Engineering in Sport Sciences”**

The IEEE EMB Chapter Chair presented a seminar entitled “Introduction to Biomedical Engineering and Student Activities for Hard & Soft Skills Enhancements” at an event organized by the IEEE SGU (Swiss German University) Student Branch, BSD City. The event was promoted as: IEEE SGU Student Branch Seminar – SGU BEnnovative Idea 2015: “Biomedical Engineering in Sport Sciences”.

The seminar title was selected to promote “Biomedical Engineering” to High School Students and Biomedical Engineering students of the Swiss German University (SGU) in BSD City. The event was fully supported by the Department of Biomedical Engineering and the Rector of SGU.

During the half-day seminar, presentations and discussions were mostly focused on two related areas, namely Biomedical Engineering (Speaker: IEEE EMB Chair), Sport Sciences and their application examples (3 Non IEEE Speakers).

This event was held in BSD City Tangerang on 11 Nov 2015, attended by 110 attendances including 15 IEEE Member and SB member.

### **4. 2015 4th International Conference on Instrumentation, Communications, Information Technology and Biomedical Engineering (ICICI – BME 2015)**

The “2015 4th International Conference on Instrumentation, Communications, Information Technology and Biomedical Engineering (ICICI – BME 2015)” was conducted on Monday 2 November and Tuesday 3 November 2015, in Bandung (Indonesia). It was organized by: the Institut Teknologi Bandung (ITB), Indonesian Biomedical Engineering Society (IBES), Indonesian Sensor & Actuator Systems Society (ISASS), Indonesian eHealth & Telemedicine Society (IeHTS). The Sponsors were: ITB School of Electrical Engineering & Informatics, ITB Faculty of Mathematics & Natural Sciences. The international conference was Technically Co-Sponsored by: IEEE, IEEE Indonesia EMB Chapter, and IEEE Indonesia CAS Chapter. The IEEE ITB Student Branch fully supported the preparation and implementation of the conference.

The two day conference consisted of the following: Two day Invited Keynote presentations (7 Keynote speakers), 2 Invited special session presentations, 8 Parallel Sessions (in two days) and a Workshop on “ICT for Community Health Development Case Study: Sahabat Bunda, An mHealth Supported Program for Maternal, Newborn, and Child Healthcare” (on the second day). The Day-1 (Monday 2 Nov 2015) was from 9:00 - 16:30 (Attendance = 117), and the Day-2 (Tuesday 3 Nov 2015) was from 8:30 - 16:30 (Attendance = 129).

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This event was held in Bandung on 02 Nov 2015, attended by 129 attendances including 45 IEEE Member and SB member.

## **5. Social Meeting & Discussions on ”Improving IEEE PMSD Student Branch Activities”**

The Social Meeting (consisting of Dinner & Discussions) was held at “Jejamuran Restaurant”, Jalan Pakem, Yogyakarta. The Participants of the Meeting were: 4 Staff Members of PMSD (Polytechnic Mechatronics Sanata Darma) Yogyakarta, IEEE PMSD SB Counselor and IEEE EMB Chapter Chair. The topics of discussions include: Recent activities of the IEEE PMSD SB (general activities, involvement in IEEE Day Photo Contest), Improving SB activities; Possible Collaboration on Text Book Writing, Future Activities and collaborations.

This event was held in Yogyakarta on 27 Oct 2015, attended by 9 attendances including 4 IEEE Member and SB member.

## **6. IEEE DLP Lecture 2015: “Towards an Intelligent and Ubiquitous Healthcare Infrastructure**

The IEEE EMB Chapter, the IEEE ITB (Institut Teknologi Bandung) Student Branch, and the Biomedical Engineering Program ITB organized an IEEE DLP Lecture entitled: “Towards an Intelligent and Ubiquitous Healthcare Infrastructure “. The IEEE DLP Lecturer was Prof. Dr. Pradeep K. Ray (Communications Society DLP Lecturer). Before the lecture, a brief Introduction to the IEEE and DLP Lecturer Program was presented by the IEEE EMB Chapter Chair.

The lecture discussed some of the global initiatives in the development and assessment of uHealth as part of the work being done through professional bodies (e.g., IEEE) and global organizations (e.g., WHO and ITU), and agencies in different countries. A Video

presentation was included in the lecture. At the end of the lecture, a Question & Answer session was also conducted.

After the DLP lecture, a Social Meeting was organized during the Lunch with the DLP Lecturer. It was attended by the Student Branch Counselor and some ITB Graduate Students.

It should be noted that the series of DLP Lectures in Bandung were made possible, thanks to the intensive email communications made between Prof. Pradeep K. Ray and the IEEE Indonesia EMB Chapter Chair. The DLP Lectures in Bandung were organized and supported by the Dept. of Electrical Engineering –Itenas Bandung, the Biomedical Engineering Program – Institut Teknologi Bandung, Dept. of Electrical Engineering – Telkom University and the IEEE EMB Chapter.

This event was held in Bandung on 22 Oct 2015, attended by 35 attendances including 10 IEEE Member and SB member.

## **7. IEEE DLP Lecture 2015: Cooperative Service Management in Healthcare Sector – Emerging Trends and Future Challenges**

The IEEE EMB Chapter, the IEEE Itenas Bandung Student Branch, and the Department of Electrical Engineering Itenas Bandung organized an IEEE DLP Lecture entitled: “Cooperative Service Management in Healthcare Sector: Emerging Trends and Future Challenges“. The IEEE DLP Lecturer was Prof. Dr. Pradeep K. Ray (Communications Society DLP Lecturer).

The lecture presented an overview of emerging trends and future challenges in this field based the presenter's experience in the areas on integrated service management and e-Health through the leadership of a number of global initiatives, such as the WHO eHealth for Healthcare Delivery (eHCD) involving four countries, ITU-D Mobile e-Health initiative (m-Health) for developing countries and the global assessment of mobile mHealth involving twelve countries.

Before the lecture, a brief Introduction to the IEEE and DLP Lecturer Program was presented by the IEEE EMB Chapter Chair.

A Social Meeting was organized during the Lunch with the DLP Lecturer. It was attended by the Rector of Itenas Bandung, the Head of Electrical Engineering Department, the Student Branch Counselor and the IEEE EMB Chapter Chair.

The series of DLP Lectures in Bandung were made possible, thanks to the intensive email communications made between Prof. Pradeep K. Ray and the IEEE Indonesia EMB Chapter Chair. The DLP Lectures in Bandung were organized and supported by the Dept.

of Electrical Engineering –Itenas Bandung, the Biomedical Engineering Program – Institut Teknologi Bandung, Dept. of Electrical Engineering – Telkom University, and the IEEE EMB Chapter.

This event was held in Bandung on 21 Oct 2015, attended by 31 attendances including 15 IEEE Member and SB member.

## **8. Discussions on IEEE SIGHT Activities and Students' Participations in 2015 Photo Contests and IEEEExtreme Programming Competition**

The IEEE EMB Chapter and CAS Chapter supported a Social Meeting to discuss and improve/enhance (a). the IEEE SIGHT Group on eHealth & Telemedicine activities and (b).the Student Participations to the IEEE Day Photo Contest and the IEEEExtreme Programming Competition.

(a).A number of issues were discussed and further activities were planned. The “Sahabat Bundaku” implementation plan was also discussed.

(b).Evaluations were discussed on the existing students participations on both the IEEE Day Photo Contest and the IEEEExtreme Programming Competition. A number of ways to encourage students to participate in both activities were discussed.

At the end of the meeting, the IEEE EMB Chapter & IEEE CAS Chapter agreed to provide supports to the IEEE ITB Student Branch and the IEEE Itenas Bandung Student Branch to register in both the IEEE Day Photo Contest and the IEEEExtreme Programming Competition.

This event was held in Bandung on 9 Oct 2015, attended by 6 attendances including 3 IEEE Member and SB member.

## **9. IEEE Day Seminar 2015**

The Seminar has been organized and covered the following 3 topics: (a).The IEEE Day Seminar 2015; (b).Introduction to Biomedical Engineering, Professional Societies & Student Activities; (c).IEEE SIGHT & Activities. The EMB Chapter Chair presented the first two topics and the IEEE Indonesia IEEE SIGHT Group on eHealth & Telemedicine Chair presented the third topics.

(a).The IEEE Day 2015 (6 October 2015) and its related activities all over the world were presented. Students were also encouraged to actively involved in the global activities.

(b).The second topics described: Biomedical Engineering, Professional Societies & Student Activities. The topics introduced Biomedical Engineering, the IEEE Code of Ethics & various activities, and promote students activities through the existing IEEE

Student Branch. Students involvements in different types of IEEE Student Competitions were also emphasized.

(c).Humanitarian Technology Activities through the IEEE SIGHT on eHealth & Telemedicine were briefly presented.

Special Encouragements for Students, to actively participate in the IEEE Day and IEEEExtreme Programming Competition activities (to be organized in October 2015) were emphasized.

This event was held in Bandung on 6 Oct 2015, attended by 35 attendances including 7 IEEE Member and SB member.

## **10. IEEE Telkom University Student Branch Open Mind & Seminar 2015**

The IEEE EMB Chapter Chair presented a seminar entitled “Introduction to Biomedical Engineering, Professional Societies & Student Activities” at an event organized by the IEEE Telkom University Student Branch, Bandung. The seminar title was selected to promote “Biomedical Engineering” to Electrical Engineering students and supported the Student Branch’s efforts to establish a new “IEEE Tel-U Student Branch EMB Chapter”. After about 50 minute presentation, a Question & Answer session was also conducted.

This event was held in Bandung on 22 Sept 2015, attended by 165 attendances including 27 IEEE Member and SB member.

## **g) PE31 Indonesia Chapter**

### **1. Distinguished Lecturer Program - Prof Ambrish Chandra**

Distinguished Lecturer Program topic: Hybrid Renewable Energy Standalone Systems Control of Grid Integrated Renewable Energy sources with power quality improvement features.

This event was held in Yogyakarta on 18 Dec 2015, attended by 40 attendances including 4 IEEE Member. The speaker is Prof Ambrish Chandra, École de Technologie Supérieure (ETS), Université du Québec, Canada.

### **2. Distinguished Lecturer Program - Dr Prabha Kundur**

The lecture was titled: "Sustainable electric Power Systems in the 21st Century: Role of Smart Grid Technologies".



This event was held in Yogyakarta on 27 Nov 2015, attended by 60 attendances including 20 IEEE Member and Student Member. The speaker is Dr Prabha Kundur, Univeristy of Toronto, Canada.

### **3. General Lecture and IEEE Meeting**

The event consisted of two session:

#### **a. General Lecture**

The lectures were given by two distinguished expert in electrical energy field: 1) Prof Taufik from California Polytechnic State University who presented DC House and renewable energy, and 2) Mr Yugo Riyatmo, the General Manager of PT PLN Distribusi Jawa Tengah and DIY, who presented electrical system in Indonesia and Jawa Tengah.

#### **b. IEEE Meeting**

The IEEE meeting served to encourage students to join IEEE and participate in various IEEE activities.

This event was held in Semarang on 31 Jul 2015, attended by 90 attendances including 15 IEEE Member and Student Member. The speaker is Dr Prabha Kundur, Univeristy of Toronto, Canada.

The 1st Speaker is Prof Taufik from California Polytechnic State University, San Luis Obispo, United States. The 2nd Speaker is Mr. Yugo Riyatmo from PT PLN Distribusi Jawa Tengah & DIY, with topic Electrical System in Indonesia.

### **4. General Lecture - Renewable Energy and Power Quality - Universitas Halu Oleo**

This event was held in Kendari Ujung Pandang, on 19 Jun 2015, attended by 255 guest attendances including 1 IEEE Member. The speaker is Prof Surya Santoso, University of Texas – Austin, United States. This is part of Distinguished Lecturer Program in several universities in Indonesia.

### **5. General Lecture - Renewable Energy and Power Quality - Universitas Tanjungpura - Pontianak**

This event was held in Pontianak, on 17 Jun 2015, attended by 139 guest attendances including 1 IEEE Member. The speaker is Prof Surya Santoso, University of Texas – Austin, United States. This is part of Distinguished Lecturer Program in several universities in Indonesia. This is part of Distinguished Lecturer Program Series in several universities in Indonesia

## **6. Power Quality Workshop (Distinguished Lecturer Program) - UGM Yogyakarta**

This event was held in Yogyakarta, on 15 Jun 2015, attended by 40 guest attendances including 5 IEEE Member and Student Members. The speaker is Prof Surya Santoso, University of Texas – Austin, United States. This is part of Distinguished Lecturer Program in several universities in Indonesia. This is part of Distinguished Lecturer Program Series in several universities in Indonesia

## **7. Power Quality and Socialization of IEEE Power and Energy Society**

The meeting was organized to discuss several power distribution problem which is experienced by PLN and to introduce IEEE Power and Energy Society to PT PLN Distribusi Jawa Tengah & DIY and its management and staff.

The meeting discuss several topic:

- Distribution cable being severely burnt and disconnected with unknown reason
- IEEE Power and Energy Society Program and Activities
- IEEE Membership
- Standardization and certification
- Power Quality Workshop

This event was held in Semarang, on 12 Mei 2015, attended by 20 guest attendances including 2 IEEE Member. The 1st Speaker is Sarjiya PhD, with topic IEEE Program and Activities. The 2nd Speaker is Mr. Yugo Riyatmo from PT PLN Distribusi Jawa Tengah & DIY.

## **8. IEEE Power and Energy Society Indonesia Meeting & Member Gathering**

Electricity growth is around 7 – 8 %. Indonesia aims to build 35.000 MW for the next five years. This target open a tremendous opportunity for electrical professional. Implementation of Transmission Network Join Utilization (Power Wheeling) – Presented by Prof. Sasongko Pramono Hadi.

Consortium of several universities was requested by PLN, Indonesian state utility company, to assess the implementation of power wheeling. The consortium study several pricing scenario. Evaluation is based on several objective and consideration. The result of the study will be used by PLN to decide power wheeling price.

Due to the nature of contract between PLN and the consortium, numbers and detail that was presented cannot be disclosed.

Application of HSABC Algorithm to Coordinate Power Plant for the Economic Operation – Presented by A.N. Afandi, PhD

Inspired by bee colony, Dr Afandi develop a newer version of Artificial Bee Colony algorithm called Harvest Season ABC Algorithm. The algorithm is used to design power generation system operation to ensure optimality based on economic objectives, technical parameter and environmental constrain.

Economics of Competing Energy Technologies – Presented by Arif Hamdani Gunawan  
Indonesia is very suitable for the development of renewable energy. To really asses renewable energy economic, we have to consider all factor beyond traditional electricity pricing calculation.

This event was held in Semarang, on 02 Mei 2015, attended by 50 guest attendances including 9 IEEE Member.

#### **h) Chapter SP01/ED15/E25/PE31**

##### **1. 2015 Joint International Conference on Electric Vehicular Technology and Industrial, Mechanical, Electrical and Chemical Engineering (ICEVT & IMECE)**

This event is organized by Sebelas Maret University in collaboration with the School of Electrical and Informatics, Institute technology Bandung (ITB) and technical co-sponsored by IEEE Indonesia Section & IEEE Indonesia Section SP/ED/E/PES Joint Chapter. The conference was held in Surakarta, Indonesia on November 4th – 5th 2015. The aim of the conference is to provide opportunities for the different areas delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration in the fields of Electrical Vehicular Technology and also recent advances in Engineering Technology of Industrial, Mechanical, Electrical and Chemical Engineering (IMEC-E) (<http://icevt2015.uns.ac.id/>)

The guest attendance in this conference is about 150, including 30 IEEE Member and Students Member.

##### **2. Seminar Nasional Teknik Ketenagalistrikan dan Aplikasinya (SENKA 2015) - National Conference on Electrical Engineering and Its Applications**

This event was held on 19-20 August 2015 as a national scientific forum for the academics, industries and government to exchange information on progress and plans for the electricity development programs in Indonesia. The conference was organized by

School of Electrical Engineering and Informatics ITB in cooperation with the Institution of Engineers, Indonesia (IEI) and technical co-sponsored by IEEE Indonesian Section SP/ED/E/PES Joint Chapter.

The Guest Attendance in this event are 70, including 10 IEEE Member Attendance and Students member.

### **3. 2nd International Conference on Electrical Engineering, Computer Science and Informatics 2015 (EECSI 2015)**

Universitas Sriwijaya (UNSRI), Universitas Ahmad Dahlan (UAD), Universitas Islam Sultan Agung (UNISSULA), IEEE Indonesian Section SP/ED/E/PES Joint Chapter & IEEE Indonesian Section Computer Society Chapter organized the conference on 19-21 August 2015 in Palembang, Indonesia. This event is intended to provide technical forum and research discussion related to electrical, electronics, instrumentation, control & telecommunication engineering, computer science and informatics. (<http://eeksi.ilkom.unsri.ac.id/>)

The Guest Attendance in this conference are 100, including 20 IEEE Member and Students member.

### **4. The 5th International Conference on Electrical Engineering and Informatics 2015 (ICEEI 2015)**

International Conference on Electrical Engineering and Informatics is a biannual scientific meeting in Asia. The scope of the conference covers all fields in electrical Engineering and Informatics, their methods, technologies, and applications. The purpose of this conference is to provide a forum for researchers, scientists and engineers from all over the world to exchange ideas and discuss recent progress in all fields of electrical engineering and informatics from basic science to practical applications. The 5th International Conference on Electrical Engineering and Informatics was organized by School of Electrical Engineering and Informatics of Institut Teknologi Bandung (Indonesia) and Faculty of Information Science and Technology of Universiti Kebangsaan Malaysia (Malaysia), and technical co-sponsored by IEEE Indonesia Section, IEEE Indonesia Section EMB Chapter & IEEE Indonesia Section SP/ED/E/PES Joint Chapter. This event was held on 10th - 11th August 2015.

There are 200 guest attended in this conference, including 50 IEEE Member and Student member.

### **5. Young Scientist Forum**

The Young Scientist Forum is designed to create new leaders in scientific research from Indonesia. It was held in Institut Teknologi Bandung on 1st December 2015 at Multimedia Room, School of Electrical Engineering and Infomatics, Institut Teknologi Bandung.

The Guest Attendance are 60, including 3 IEEE Member Attendance and Students Member.

## **i) WIE AG Indonesia**

### **1. WIE AG Indonesia Section Educational Activities and Member Gathering**

WIE AG IEEE Indonesia Section made an Educational activities and Member gathering at Telkom University Bandung. The Educational activities were including Socialization of WIE AG IEEE Indonesia Section Activities, member Gathering, and WIE activities Socialization.

This event was held in Bandung, on 22 September 2015, attended by 165 guest attendances including 27 IEEE Member and SB Members.

### **2. WIE AG Indonesia Section Educational Activities and Member Gathering**

WIE AG IEEE Indonesia Section make an Educational activities and Member gathering at Universitas Hasanudin Makasar. The Educational activities were including Socialization of WIE AG IEEE Indonesia Section Activities, member Gathering, and WIE activities Socialization.

This event was held in Makassar, on 05 September 2015, attended by 60 guest attendances including 18 IEEE Member and SB Members.

### **3. IEEE WIE AG Indonesia Section Global Warming Awareness Activities**

IEEE WIE AG Indonesia Section together with IEEE Indonesia Section in collaboration with Telkom and Ministry of Government Enterprise, contributed to collaboration activities related to plant trees in the Angke beach northern part of Jakarta to protect against abrasion. IEEE WIE AG provided several supporting tools to protect the beach.

This event was held in Jakarta, on 08 Aug 2015, attended by 150 guest attendances including 5 IEEE Member and SB Members.



#### **4. WIE Social Activities to Improve Awareness of Global Warming**

IEEE WIE AG Indonesia Section in collaboration with IEEE Indonesia Section was arranged a Social Activities to improve awareness about Global Warming of the Student in Sumba, province of Nusa Tenggara Timur, eastern part of Indonesia.

The activities was arranged in the forms of playing about Snake and Ladder with topic of Global Warming with some of words in the Snake and ladder playing mattress, of how to make attentions and awareness of the children about good and bad things or habit of daily activities to save the earth. If the children make a good thing then get rewards and bad thing get punishment. Good things for example are energy saving at home, with switching off the light when no use, save water, place rubbish in proper place, etc. Bad things, for example burning rubbish in un-proper manners, don't care about environment, and throw the rubbish everywhere.

IEEE Indonesia Section and WIE AG Indonesia Section make education to the children and their parent about how to care about environment and how to care about saving earth. The event also continued with several activities related to socialization of WIE AG Indonesia Section activities, to Sumba District Local Government.

This event was held in Sumba, on 05 Jul 2015, attended by 175 guest attendances including 3 IEEE Members.

The speaker is Mrs. Agnes Irwanti, SE, M.Si., from IEEE WIE AG Indonesia Section, with topic simple life activities to Improve Awareness of Global Warming.

#### **❖ Major Student and Affinity Group Activities**

##### **a) National Seminar and Workshop about IoT**

In collaboration with Industry, Toyota Motor Manufacturing Indonesia (TMMI), IEEE Indonesia Section organized a National Seminar and Workshop about IoT. The Seminar and tutorial is open for public and also there is an IoT competition between University Student, sponsored by TMMI.

The seminar has been held in Bali on 08 Nov 2015, was attended by about 56 participant, including student for several universities in Indonesia. The workshop was discussed about IoT Technical and Social Aspects.

There are several speakers presented some activities in the IoT field.

The first speaker is Ir. Indra Chandra Setiawan M.Sc, from Toyota Motor Manufacturing Indonesia who present about IoT implementation for Automotive Implementation.

The 2<sup>nd</sup> speaker is Prof. Soo Young Shin from Kumoh National Institute of Technology also speak about Smart Green Technology for Developing Smart City.

There are also some other speakers such as Lingga Wardhana, ST, MBA, Ir. Satriyo Dharmanto, M.Si. and M. Ary Murti, ST, MT. who shared information about IoT and 5G Development, both in the Seminar and in the workshop sessions.

## **b) IEEE Indonesia Student Congress**

This event was held in October 2015, organized by Universitas Gadjah Mada Student Branch. 2015 IEEE Indonesia Student Congress was held in Universitas Gadjah Mada Yogyakarta, Indonesia on 24-25 October 2015.

The aim of this congress is to introduce the students to the world of IEEE and to boost student activities in the section by training and motivating the student branch members.

Besides, this event also opens up chances for IEEE student member to pave a network with IEEE Professional Member.

The congress has attracted more than 40 participants from 12 universities in Indonesia.

## **❖ Awards**

During year 2015, there is no Awards received by IEEE Indonesia section, however, IEEE Indonesia Section received 2015 Outstanding Section membership recruitment performance from IEEE Headquarter.

IEEE Indonesia Section also has other achievements such as 12 new SB formation, 7 new SB chapters and WIE AG formation, 8 new Chapters formation (1 approved and 7 in approval process).

## **A.2 Financial Report**

- Summary (as per submitted report by Treasurer)

No.	ITEM	AMOUNT in USD
<b>1,00</b>	<b>CONTRIBUTION</b>	-
<b>2,00</b>	<b>PROGRAM VENUE</b>	
2,50	Conference Revenue	
	Contribution from ICTS 2014	245,00
	Contribution from CITSE 2014	100,00
	Contribution from ICACSYS 2014	3 231,60
	Contribution from ICICT 2015	1 000,00
	Contribution from ICPERE 2014	500,00
	Contribution from IC3INA 2015	212,99
	<b>Total 2.00 - Program Revenue</b>	<b>5 289,59</b>
<b>3,00</b>	<b>OTHER RECEIPTS</b>	
3,10	Rebate from IEEE HQ	6 162,00
3,20	Region Receipts	1 608,75
3,33	Cash Receipt, Seed money from previous conference	3 122,80
3,34	Support from IEEE, SIGHT Sahabat Bunda	15 995,00
3,45	Interest	191,30
3,70	Others	-
	<b>Total 3.00 - Other Receipts</b>	<b>27 079,85</b>
<b>4,00</b>	<b>PROGRAM EXPENSES</b>	
4,10	Meeting and Social Events	1 000,00
4,60	Educational Activities, Technical Social Activities	2 087,00
4,80	SB activities (R10 Student YPWIE Congress), ISC UGM	3 286,00
4,90	Distribution of Support from IEEE, SIGHT Sahabat Bunda	15 995,00
	<b>Total 4.00 - Program Expenses</b>	<b>22 368,00</b>
<b>5,00</b>	<b>MANAGEMENT &amp; GENERAL EXPENSES</b>	
5,15	Section Congress Expenses	3 187,00
5,20	Travel TENSYP 16 Bidding Expense	1 574,00
5,60	Taxes	80,29
	<b>Total 5.00 - Management &amp; General Expenses</b>	<b>4 841,29</b>
<b>6,00</b>	<b>FUND RAISING EXPENSES</b>	-
<b>7,00</b>	<b>RECEIPTS</b>	-
<b>8,00</b>	<b>DISBURSEMENT</b>	-
	Cash in hand	
	Loss/Profit	5 160,15
	<b>Carry over on 31 December 2014</b>	<b>71 629,56</b>
	<b>Carry over on 31 December 2015</b>	<b>76 789,71</b>

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

B.1.1. The objectives of the Membership Development Committee (MDC) of IEEE Indonesia Section are as follows:

- a) To increase the number of student and professional grade members within Indonesia Section
- b) To promote qualified members that demonstrated more than 5 years significant performance to Senior Members
- c) To retain as many members as possible

B.1.2. Total number of active members as of 31<sup>st</sup> December 2015 is 1547 members with the trends presented in Figure B.1. As shown in the figure, the number of active members for IEEE Indonesia in 2015 increases 28.38% compared to that of 2014. The highest percentage of grades is Member followed by Graduate, Student and Senior as shown in Figure B.2.

The significant growth of the active member in 2015 is resulted from the increasing of IEEE Indonesia Section activities, both Professional, Technical and nontechnical activities, not only centered in big city such as Jakarta and Bandung, however the activities also spread out in several other cities such as Yogyakarta, Semarang, Purwokerto, Surabaya, Bali, Kendari, Pontianak and Makassar.

The significant growth of the active member in 2015 is also resulted from the newly formed Student Branches and Student Branch Chapters at several Universities, such as Telkom University, Universitas Diponegoro, Politeknik Mekatronika Sanata Dharma, Universitas Dian Nuswantoro, Udayana University, Institut Teknologi Nasional, Swiss German University, Universitas Pendidikan Indonesia, Institut Teknologi Indonesia, Atma Jaya Catholic University of Indonesia, Universitas Islam Indonesia, University of Sumatera Utara, Universitas Hasanuddin and Universitas Brawijaya.

Forming Student Branch and Student Branch Chapters at several Universities have the implication to increase not only to the total number of Student members, however also give positive impact to the lecturers to join IEEE. The lecturers are more aware and understand that IEEE organization and its activities can give benefit to their research, lecture activities, their professional career, as well the national and international exposure of their universities.

Last but not least, the increasing number of International conferences with Technical co-sponsored by IEEE Indonesia Section, also contributed to increasing of IEEE members in Indonesia Section.



Figure B.1: Total Number of Active Members of IEEE Indonesia Section (2012-2015)



Figure B.2: IEEE Indonesia Active Members by Grade (2015)



B.1.3. Promoting IEEE Membership was carried out by Section, Chapters, and Student Branches in various ways such as during social meetings, conferences and workshops, and educational activities involving academicians and professionals.

As a result, the number of IEEE members in Indonesia has significant increased for 2015.

## B.2 Chapter Activities

- **Total number of Chapters in the Section**

Currently there are six chapters, four joint chapters, and two affinity group under IEEE Indonesia Section:

- Computer Society Chapter (C16)
- Communications Society Chapter (COM19)
- Circuits and Systems Chapter (CAS04)
- Engineering in Medicine and Biology Chapter (EMB18)
- Solid State Circuits Society Chapter (SSC37)
- Joint chapter of Microwave Theory / Antennas & Propagation (MTT17/AP03)
- Joint chapter of Aerospace & Electronic Systems Society / Geoscience & Remote Sensing Society (GRS29/AES10)
- Joint chapter of Control System Society / Robotics & Automation Society (CS23/RA24)
- Join Chapter of Signal Processing Soc / Electron Devices Soc / Education Soc / Power Electronics Soc / (SP01/ED15/E25/PE31)
- Power and Energy Society (PES31)

- **Number of Chapters formed in the current year**

In Year 2015, there are 8 new Chapters in the formation process (1 approved and 7 in approval process). IEEE Indonesia Section is continuing work to increase the awareness of the member to forming new chapter to make the organization become more benefit to all members.

## B.3 Professional and Continuing Education Activities

IEEE Indonesia Section also focused of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs.

Detail activities related to continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs, to be described as hereunder:

➤ **IEEE Indonesia Section has 30 Annual Conferences:**

No.	Conf. Number	Normalized Publication Name	Conference Acronym
	34557	2015 International Conference on Quality in Research	QiR
2	35246	2015 International Seminar on Intelligent Technology and Its Applications)	ISITIA
3	35355	2015 3rd International Conference on Information and Communication Technology	ICoICT
4	35378	2015 International Conference on Science in Information Technology	ICSITech
5	35539	2015 IEEE International Broadband and Photonics Conference	IBP
6	35572	2015 Asia Pacific Conference on Multimedia and Broadcasting	APMediaCast
7	35590	2015 IEEE 4th Asia-Pacific Conference on Antennas and Propagation	APCAP
8	35599	2015 Intl. Conference on Advanced Mechatronics, Intelligent Manufacture, and Industrial Automation	ICAMMIA
9	35626	2015 International Symposium on Intelligent Signal Processing and Communication Systems)	ISPACS 2015
10	36011	2015 10th International Forum on Strategic Technology (IFOST)	IFOST
11	36052	2015 International Conference on Information Technology Systems and Innovation	ICITSI
12	36195	2015 International Conference on Computer, Control, Informatics and its Applications	IC3INA
13	36220	2015 IEEE Asia Pacific Conference on Wireless and Mobile	APWiMob
14	36226	2015 2nd Intl. Conference on Information Technology, Computer, and Electrical Engineering	ICITACEE
15	36267	2015 Intl. Conference on Sustainable Energy Engineering and Application	ICSEEA
16	36274	2015 Intl. Conference on Control, Electronics, Renewable Energy and Communications	ICCEREC
17	36300	2015 Intl. Conference on Radar, Antenna, Microwave, Electronics, and Telecommunications	ICRAMET
18	36314	2015 International Conference on Information & Communication Technology and Systems	ICTS
19	36367	T2015 International Conference on echnology, Informatics, Management, Engineering & Environment	TIME-E
20	36401	2015 Intl. Conference on Automation, Cognitive Science, Optics, Micro Electro-Mechanical System, and IT	ICACOMIT
21	36517	2015 International Conference on Electrical Engineering and Informatics	ICEEI
22	36651	A2015 3rd International Conference on daptive and Intelligent Agroindustry	ICAIA
23	36683	2015 4th Intl. Conference on Instrumentation, Communications, IT, and Biomedical Engineering	ICICI-BME
24	36871	2015 International Conference on Data and Software Engineering	ICoDSE
25	36895	A2015 IEEE International Conference on erospace Electronics and Remote Sensing Technology	ICARES
26	36957	2016 4th International Conference on Cyber and IT Service Management	
27	37068	2015 International Electronics Symposium	IES
28	37244	2015 IEEE International Conference on Communication, Networks and Satellite	COMNETSAT
29	37631	2015 9th International Conference on Telecommunication Systems Services and Applications	TSSA
30	37638	2015 1st International Conference on Wireless and Telematics (ICWT)	ICWT

Table B.3. IEEE Indonesia Section Conference List

➤ **Other Professional and Continuing Education Activities**

- 5G Training, with the trainer is Prof. Eryk Dutkiewicz, Head of School, School of Computing and Communications, Faculty of Engineering and Information Technology, University of Technology Sydney.
- DLT Prof Pradeep Kumar Ray, Director WHO Collaborating Centre on eHealth Asia-Pacific
- DLT Prof John R. Long, Research Chair, University of Waterloo, Canada
- DLT Dr. Tetsuya Kawanishi, Director of NICT Japan. And the 2nd Speaker is Dr. Atsushi Kanno, Director of NICT Japan
- DLT Prof Ambrish Chandra, École de Technologie Supérieure (ETS), Université du Québec, Canada.
- General Lecture Dr Prabha Kundur, University of Toronto, Canada.
- General Lecture Prof Taufik from California Polytechnic State University, San Luis Obispo, United States.
- General Lecture Prof Surya Santoso, University of Texas – Austin, United States
- Training on Towards Space 2.0 Era by ComSoc and Indonesia Section
- Electronics Design Contest (EDC) 2015
- Discussion and contribution to ICT Regulation Draft to the Government, related Internet Electronic Transaction, 5G and IoT
- Seminar and Workshop, in collaboration with the Industry

## B.4 Students Activities

B.4.1: With twelve new student branches formed in 2015, there are now 19 Student Branches (SB) under IEEE Indonesia Section. The newly formed SBs are;

- a. Politeknik Mekatronika Sanata Dharma
- b. Universitas Dian Nuswantoro
- c. Udayana University
- d. Swiss German University
- e. Universitas Pendidikan Indonesia
- f. Institut Teknologi Indonesia
- g. Atma Jaya Catholic University of Indonesia
- h. Universitas Islam Indonesia
- i. University of Sumatera Utara
- j. Universitas Hasanuddin
- k. Institut Teknologi Nasional
- l. Universitas Brawijaya

In addition, 7 Student Branch Chapters and WIE AG are formed in 2015.

**B.4.2: The name of Counselors and Chairs for IEEE Student Branches as of 31 December 2015 is listed below:**

No	Student Branch Name	Counselor	Chair
1	Universitas Indonesia	Dadang Gunawan	Hirzi Hasan
2	Institut Teknologi Sepuluh November	Gamantyo Hendrantoro	Abdil Jabbar Asyadili
3	Institut Teknologi Bandung	Soegija Soegijoko	Moch. Irwan Nari
4	Telkom University	Muhammad A Murti	Amanda Julia Isa
5	Universitas Gadjah Mada	I Wayan Mustika	Fakhruzzaman
6	Univesitas Bina Nusantara	Lukas S Tanutama	Adhy Surya
7	Universitas Diponegoro	Munawar A. Riyadi	Muh. Harry Bintang P.
8	Politeknik Mekanika Sanata Dharma	Nugroho Budi Wicaksono	Fransisca Suci Dyah Anggita
9	Universitas Dian Nuswantoro	Iva Atyna	Reza Tsuroya Adi
10	Udayana University	Wayan Ariastina Gede	Erma Pratiwi Astiti
11	Institut Teknologi Nasional	Ratna Susana Rahmat	Muhammad Faris Muslim
12	Swiss German University	Fuad Ughi	Gabriella
13	Universitas Pendidikan Indonesia	Ade Gafar Abdullah	Diky Zakaria
14	Institut Teknologi Indonesia	Dewi Indraswati Tris	Ramadhan Nur Adabi
15	Atma Jaya Catholic University of Indonesia	Lydia Sari	David Kristianto
16	Universitas Islam Indonesia	Sisdarmanto Adinandra	Farida Pratiwi
17	University of Sumatera Utara	Fahmi Fahmi	Nur Trihardi Utomo
18	Universitas Hasanuddin	Indrabayu Amirullah	Baizul Zaman
19	Universitas Brawijaya	Eka Maulana	Feraldi Alif Pratama

Table B.4.2 The name of Counselors and Chairs for IEEE Student Branches

**B.4.3. Section level student activities:**

**a) IEEE Indonesia Student Congress, October 2015, organized by Universitas Gadjah Mada Student Branch.**

2015 IEEE Indonesia Student Congress was held in Universitas Gadjah Mada Yogyakarta, Indonesia on 24-25 October 2015. The aim of this congress is to introduce the students to the world of IEEE and to boost student activities in the section by training and motivating the student branch members. Besides, this event also opens up chances for IEEE student member to pave a network with IEEE

Professional Member. The congress has attracted more than 40 participants from 12 universities in Indonesia.

**b) IoT Competition, November 2015, organized by Universitas Udayana and Telkom University.**

In collaboration with Industry, Toyota Motor Manufacturing Indonesia (TMMI), IEEE Indonesia Section organized a National Seminar and Workshop about IoT. The Seminar and tutorial is open for public and also there is an IoT competition between Student, sponsored by TMMI. The seminar has been held in Bali on 08 Nov 2015, was attended by about 56 participant, including student for several universities in Indonesia. student The workshop was discussed about IoT Technical and Social Aspects.

**c) Student Branch Discussion and Meeting Collaboration**

Open Mind IEEE SB Telkom University and Seminar was held on 22 September 2015 in Telkom University. The event introduced about what is IEEE and what is the society role in generally, and was presented professional societies and student activities in Local and International Events.

**d) Student Branch Support to Seminar, Workshop, Training and DLT in Section Level**

IEEE SB Telkom University co-organized 6 Joint Conferences on 5-7 October 2015, which are 2015 International Conference on Radar, Antenna, Microwave, Electronics and Telecommunications (ICRAMET), 2015 International Conference on Sustainable Energy Engineering and Application (ICSEEA), 2015 International Conference on Computer, Control, Informatics and its Applications (IC3INA).

One Day Training on Toward Space 2.0 Era was held in Telkom University on 13 June 2015. The training program talked about: Waveform Design Solution for EHF Broadband Satellite Communications, Cognitive Spectrum Utilization in Ka-Band Multibeam Satellite Communications, IP Mobile Multicast over Next Generation Satellite Networks, Contact Graph Routing in DTN Space Networks Overview, Enhancements, and Performance, Integration of Satellite and LTE for Disaster Recovery, Software Defined Networking and Virtualization for Broadband Satellite Networks.

#### **B.4.4. Student Representatives:**

One Student Representative was elected in 2015. Student Representative is aimed to be the communication path among Student Branches in Indonesia and carry any concerns and opinions of Student Branches to the Section. The elected Student Representative was Ms. Amanda Julia Isa from Telkom University.

### **B.4.5: Award/Recognition:**

- a) The IEEEExtreme Global Programming Competition is a global challenge in which teams of IEEE Student members compete in a 24-hour time span against each other to solve a set of programming problems. The IEEEExtreme 9.0 took place on 24 October 2015. Team from ITB Student branch managed to make it to Top 10 (Rank 4) in the world ranking, ranked 1 in R10 and no 1 in Indonesia.
- b) IEEE Region 10 Student/YP/WIE Congress 2015. Representative from Telkom University achieved 3<sup>rd</sup> Winner Award during IEEE Region 10 Student/YP/WIE Congress 2015.

### **B.5 Affinity Group Activities**

- **Women In Engineering (WIE)**

There are several activities, organized by IEEE Indonesia Section WIE, consist of Technical, Social and Education activities, such as Indonesia Section Global Warming Awareness Activities related to plant trees in the Angke beach northern part of Jakarta to protect against abrasion. IEEE WIE AG provided several supporting tools to protect the beach and also WIE activities to improve awareness about Global Warming of the Student in Sumba, province of Nusa Tenggara Timur.

There is an also technical activity about WIE Discussion about Global Warming Monitoring in collaboration with Jet Propulsion Laboratory, NASA that was held in Bali, on 03 Dec 2015. The speaker of this discussion is Dr. Diane L Evans, NASA Jet Propulsion Laboratory's director for the Earth Science and Technology Directorate, with the topic Earth Monitoring Using Remote Sensing Applications to Societal Benefits and Prevent Global Warming

### **B.6 Communication Activities (Newsletter, Home Page, E-mail etc.)**

- **Newsletter (name and number of issues in the year)**

Until now, IEEE Indonesia Section has only one Newsletter, organized by IEEE Power and Energy Society, named Majalah P&E Indonesia. The newsletter is issued monthly as shown in Fig. B.3.



**IEEE PES Distinguished Lecturer Program**

Ratna Zula



Prof. Ratna Zula sebagai pembicara pada acara

Salah satu pertemuan yang paling sering dipadukan peserta mahasiswa dalam berbagai IEEE Power and Energy Society Meeting adalah

kegiatan yang disebut juga sebagai IEEE PES Distinguished Lecturer Program yang bisa disebut dengan



Manajemen dan Sistem Tenaga Listrik

berkaitan dengan IEEE PES. Salah satunya adalah IEEE PES Distinguished Lecturer Program. IEEE PES DLP adalah sebuah program yang brings professional-kualitas orang-orang yang telah signifikan kontribusi dalam berbagai disiplin ilmu yang ada di Indonesia yang telah memiliki standar keahlian yang tinggi dan diakui dunia.

Melalui program ini, IEEE PES memberikan layanan profesional agar IEEE Chapter dapat menghadirkan ahli-ahli dalam berbagai disiplin ilmu yang ada di Indonesia yang telah memiliki standar keahlian yang tinggi dan diakui dunia.

Power and Energy Society Indonesia Chapter adalah antara yang sudah sangat baik - sangat baik dan baik, yang telah menyelenggarakan IEEE Distinguished Lecturer Program. Kegiatan ini IEEE Indonesia dapat menyelenggarakan. ISL pada bulan Januari 2015.

Sebagai pembicara, IEEE Indonesia menyelenggarakan Distinguished Lecturer Program. Kegiatan ini IEEE Indonesia dapat menyelenggarakan. ISL pada bulan Januari 2015.

Figure B.3: IEEE PES Newsletter

- **Home Page of the Section (give the URL and how often it is updated)**  
IEEE Indonesia Section has home Page with Address: [www.ieee.id](http://www.ieee.id) and it update almost every week as shown in Fig. B.4.



Figure B.4: IEEE Indonesia Website

- **Other means of contacts with Section members including social media**  
 IEEE Indonesia section also using several ways to communicate with their members, including email conversation, IEEE E-notice, Several WhatApps group, Facebook with address [www.facebook.com/IEEEIndonesia](http://www.facebook.com/IEEEIndonesia) and Twitter with address <https://twitter.com/IEEEIndonesia>. Fig. B.5 shows the social media of IEEE Indonesia.



Figure B.5: IEEE Indonesia Social Media

## B.7 Industry Relations

- **Activities for/with industrial members**  
 IEEE Indonesia Section has several activities to strengthening it relation with the industries, to improve industrial member. Currently several members are come from Industries background, such as Telecommunication, Oil and Gas, Electricity, Manufacture, Automotive and Agricultures back ground.

## B.8 Humanitarian Technology Activities

- **SIGHT Activities**

IEEE Indonesia Section has two different SIGHT activities:

- SIGHT in Telemedicine, which organized several activities related to ICT for healthy life in urban and rural areas
- SIGHT Group on Humanitarian Technology to empower people for better life with innovation of Technology, in the Eastern part of Indonesia

## **PART C - OTHERS**

### **C.1 Relationship with National and International Societies and Non-Government Organizations (NGO)**

- Collaboration between IEEE Indonesia Section and MASTEL (Indonesia Infocom Society)
- Joint activities between IEEE Indonesia Section and APTIKOM (The association of higher education institutions in computer science and information technology)

### **C2. Collaboration with other IEEE Sections**

- Collaboration between IEEE Indonesia Section and IEEE Malaysia Section for Several Conference in Bandung and Bali
- Collaboration between IEEE Indonesia Section and IEEE Thailand Section for Several Conference in Chiang Mai and Yogyakarta.
- DLT activities in coordination together with Singapore and Malaysia Section

### **C.3 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)**

Strengthening support to Student Branch (SB) will result the development of number of activities and growing of IEEE member

### **C.4 Problems anticipated and suggestions for solutions**

IEEE Indonesia Section actively anticipated and provided suggestion for solution to the Government related to the development of Information and Communication Technology, such as development of 5G, Internet of Things (IoT), Internet Transaction Electronic (ITE), TV Digital and Technology for Humanity.

## **PART D - GOALS AND PLANS**

The Executive Committee of IEEE Indonesia section supported by Advisory Boards, are committed to continuing managed the organization move forward and developing with some of Goals and Plans as hereunder:

1. Strengthening collaboration and activities related to the engineering field with the Universities, Government, Industries and Communities, in order to:
  - a. Elevate its vital role for strategic national positioning toward an IEEE as one of the national assets in Indonesia

- b. Leverage IEEE leadership role in fostering new technologies and innovation.
  - c. Strengthening IEEE Indonesia Section's position in the contribution to the forming or revision new regulation in the ICT and engineering field
  - d. Provide benefits to members, as their membership and activities will raise their career development and professional success.
2. Leveraging Indonesia reputation in international engineering forums. including:
    - a. Organizing international events with assured high quality
    - b. Supporting & supervising Chapter activities, while maintaining its independency
    - c. Supporting professional conferences and events carried out by universities and industries
  3. Improving members benefit by, among others:
    - a. Promoting and facilitating members to elevate their membership,
    - b. from Associate to Member, and from Member to Senior Member
    - c. Expanding opportunities for members to get involved in
    - d. organization events, networking, and training related to ICT and Engineering
  4. Address young Engineers needs
    - a. Providing education (training, knowledge sharing) to facilitate career progress
    - c. Facilitating networking with professionals and industry leaders.
  5. Providing more support for:
    - a. Student technical activities in universities, including supporting the activities of Student Branches
    - b. Supporting the establishment of new Student Branches
  6. Keeping the good organization governance by:
    - a. Improving members' communications and participations by making greater use of IEEE Indonesia Section website and social media platforms.
    - b. Supporting Women in Engineering activities and Student Branches
    - c. Supporting Professional Activities
    - d. Supporting SIGHT in Telemedicine and SIGHT in Humanitarian Tech

## **D.1 Continuation of project/activity in progress and their implementation plans**

## **D.2 Goals and Future Plans**

IEEE Indonesia Section is expecting that aside from being an ordinary professional society also would elevate its vital role for strategic national positioning toward an IEEE as one of the national assets. IEEE Indonesia Section are in the midst of continuing organization development progress, enhancing national visibility of IEEE Indonesia Section, combining unique position in Indonesia professional communities

and also continuing making profound social impact in the communities that we serve around Indonesia, and will continue to do so today and into the future.

### **D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.**

IEEE Indonesia Section will continue to organize several activities in the Universities in collaboration with the Industries, research center and the government, to strengthening the awareness of the Indonesia people, about IEEE Indonesia Section, the activities, and the benefit for humanity.

The activities are including some activities in eastern part of Indonesia, when the infrastructure is still limited and technology are not implement properly yet.

Continuing organize several activities that can attract more student to participate and give their active contribution.