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http://www.ieice.org/cs/pub/global_news.html

Message from the President

Kou Miyake
President, IEICE Communications Society
President and CEO, NTT Data Intellilink Corporation



It is my great honor to serve as the President of IEICE Communications Society, and I am looking forward to the upcoming year working with you. In the year of 2017, IEICE will harvest its 100th Anniversary, which marks the major milestone. The Communications Society is the largest association in the IEICE, and I think that it is the organization that has been carrying the growth of our institute. I am going to fulfill my duties during my term of office.

Electronics and information related technologies have been greatly metamorphosed in the last 30 years due to the rapid technology revolution. In speaking of technology development, it has been evolving from the digital revolution, the silicon revolution, to the so called network revolution - broadband, Internet, mobile, and then the newborn platform revolution - Cloud, social, mobile, and Big Data. our society has been deeply involved and has made great contributions to all of these fields. As such technology developments have a great impact on society, we can say that the synergy of technology progresses and social needs indicated the coming of an information explosion era. In response to such changes, I believe that it is important for us to keep the good traditions and make the necessary changes.

It is the responsibilities of IEICE Communications Society to promote research and development in electronics, information and communication fields, and also to educate and nurture researchers and engineers. For research and development, it is important to have new opinions and advanced technologies spread around the world by our journals. Results spread through the journals that would be published only after peer review by our professionals, which makes it surely reliable when read by people around world. It is not exaggerate to say that maintaining the reliability of our journals is as important as maintaining the Society's lifeline. In order to perfect the reliability, our association has spent a long time not only keeping the peer review system, but also devoting to pointing out ways of expressing objectivity and novelty in papers, along with building a system that maintains moral as well. As technical fields that we deal with have expanded along with getting more professional expertise, it becomes more and more important to carry on the tradition of keeping the journals' reliability.

Another tradition in our society is the lively Technical Committee's activities. These activities have made great contributions to the progression of research quality and nurturing of experts. High-quality papers are also published through activities. Furthermore, in response to the expanding technical fields and deepening expertise, a variety of Technical Committees appear in the progress of scrapping and building. However, the Technical Report is still basically distributed in the form of prints, and this operating mode might not meet the demand of the time. Consequently, in the past few years, discussion about the transformation to the new operating mode of the Technical Committee has been carried out regularly, and I think that the stage of boldly taking the outcome into action is just coming.

On the other hand, I believe that there is still much room for improvement on the provision of fine-grained information to our members. Take the GLOBAL NEWSLETTER as an example, as a periodical, it is still provided mainly in prints. I think that it is necessary for it to provide members with more timely information that matches their interests, such as society activities and technical field trends. Therefore, there is a need to take advantage of new IT services, including the SNS, which is already widely used across the world. Through fulfilling the members' service and visualizing society activities, our presence would be promoted around the world and the number of society members might be enlarged accordingly.

Am I a Winner in the Games Scientists Play?

Hiroshi Uno
NTT Advanced Technology Corporation



1. Introduction

When I was a freshman researcher, one of my friends recommended to me a book called “Winning the Games Scientists Play,” by Carl J. Sindermann. It explains the interpersonal strategies that we need to adopt in order to become successful practitioners of science. I was fortunate to have a chance to read that book at the outset of my career as a novice researcher. Now, I want to review that career in light of the book’s teachings and determine whether or not I have become a successful practitioner. I would like to introduce the English version [1] in place of the Japanese translation that I originally read.

2. How to win

Chapters 1 and 2 of the book talk about the importance of publishing papers and making presentations at conferences as essential practices. These chapters preach that, when engaging in a joint study, you need to decide who will be the lead author on the paper - not before you start writing but before you start studying. It is too late to make this decision after you have finished the study. Chapter 3 instructs you to join academic institutes and societies. It recommends that you take on active roles in a wide variety of conferences, events, meetings and parties.

Chapter 4 urges you to chair scientific sessions like an orchestra conductor. Being given the role of chairperson is recognition that you are an expert in the study area. It also gives you opportunities to get to know many researchers. Chapter 5 discusses the tasks of an organizer or a producer of scientific activity, such as drafting an annual schedule of conferences and meetings, nominating chairs of and participants in scientific events. Budget planning is a key issue. Chapter 6 deals with participation in committee meetings as a negotiator. Committee meetings are just like games. If you are a committee member, you have to assume major authority and have an edge. If you are elected chairperson of a committee, you have to be able to persuade members to accept certain lines of approach.

Chapter 7 describes career changes, such as moving up, on, and out. The degree of one’s success is gauged through personal and external evaluation processes. The former determines the level of self-satisfaction with one’s achievements. The latter determines promotion and earning potential. Scientists deliberate over changing their career paths in order to pursue

higher degrees of success in all of those respects. Chapter 8 considers the power that comes with rank. Some scientists are able to acquire and exercise such power, which is defined as the ability to assign subjects, goals and priorities of researchers’ study themes, including one’s own. You have the authority to decide the time schedule and method for attaining the goal for the subject. Chapter 9 covers scientists’ concerns regarding ethics. Professional activities may encounter ethical limitations. While exceeding ethical limits can boost your reputation, such action could also compromise it. Fabricated data are unacceptable. Analyzed data can disguise original data. Selected data might be acceptable but it might also be deceptive.

3. My rating

With regard to Chapters 1 through 3, I published my papers in journals, I spoke at conferences and I participated in events as a member of IEICE. I was accepted as a winner at that level. In line with Chapters 4 through 6, I chaired sessions, organized a technical committee of IEICE as chairperson, and I attend committee meetings in that capacity. I also attend higher-level meetings as a representative of the committee. Those activities may gain me recognition as a winner at that level. However, with respect to Chapter 7, I am a loser because I have interrupted my research activities. Up until three years ago, I had been carrying out studies as a researcher at NTT Laboratories. Then, I transferred to take on a business role in a subsidiary company.

4. Conclusion

I remember the words of Dr. Inoue, President of IEICE, when he was conferring on me the title of Fellow. He said that the title was a reward not only for achievements to date but also for future efforts expected of me. That means that I need to continue doing research activities. Wow! I am failing to come up to his expectations. Let me try to find a way to get back into research activity. Business and research should go together.

Reference

- [1] Carl J. Sindermann, “Winning the Games Scientists Play,” Basic Books; revised edition (March 27, 2001), ISBN-13: 978-0738204253.

IEICE Europe Section – current and future activities –

Piotr Zwierzykowski
Poznan University of Technology



1. Introduction

At present the main goal of IEICE Europe Section is to develop a good organizational structure that will provide adequate services to its members. One of the first initiatives was to establish a yearly IEICE Europe event that would help further promotion of the IEICE activities. Since 2011 such role play IEICE Information and Communication Technology Forum (ICTF). The Forum since 2011 to 2013 took place in Sarajevo, the capitol of Bosnia and Herzegovina.

2. IEICE ICTF Forum

The last IEICE Information and Communication Technology Forum has been held on 29th – 31st of May 2013. The Forum was organized by IEICE Europe Section and technically sponsored by the IEICE. In addition, the Forum has been technically sponsored by Communications Society of IEICE (IEICE-CS).

The Forum has been opened by Dr. Haris Gacanin, (IEICE Europe Section Chair). During ICTF we had 30 presentations with about 40 participants each day, all contributed to success of the conference.

The IEICE ICTF, except for the main track, also included the following keynote speakers both from the academia and industry [1]:

- Dr Yuji Inoue, IEICE President and Toyota ICT; “*Inter-industry Innovation*” – Fig. 1,
- Prof. Fumiyuki Adachi, IEICE ICTF General Chair Tohoku University; “*Disaster-resilient Multilayered Communication Networks*” – Fig.2,
- Prof. Maciej Stasiak, Poznan University of Technology, Poland; “*Modeling Traffic Control Mechanism in Mobile Networks*”.

In 2013, articles presented during Forum have been published for the first time in the I-Scover [2].

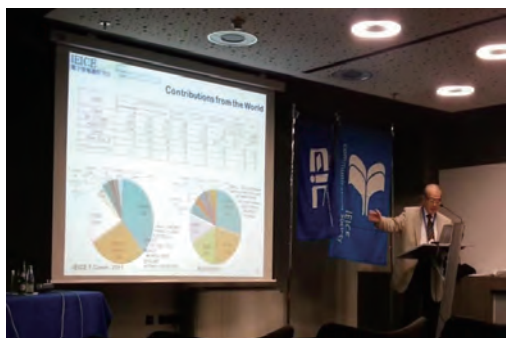


Fig. 1 Keynote speech by Dr Yuji Inoue [1].



Fig. 2 Keynote speech by Professor Fumiyuki Adachi.

The next ICTF conference is organized on 28-30 of May 2014, in Poznan, Poland (<http://www.ictf2014.org>). In 2015, the conference will be located in Manchester, United Kingdom.

3. IEICE Wireless Networks Workshop

In 2013, IEICE Europe Section starts new form of regular activity, namely, the IEICE Wireless Networks Workshop which will be organized every two years in different European country.

The 1st Wireless Network Workshop (WNW) was held on 12th and 13th December, 2013 at Faculty of Electronics and Telecommunications Poznan University of Technology in Poznan. The sponsors of the conference were: The Institute of Electronics, Information and Communication Engineers (IEICE), IEICE Europe Section, Poznan University of Technology, Polish Association of Telecommunication Engineers (PATE) and CARMNET project [3].

The workshop presentations started with the opening speech by the local committee chair, Prof. Mariusz Głąbowski (IEICE-ES vice chair). During the WNW 2013 we had 18 presentations associated with related discussions, questions and answers over two forum days, with about 60 participants each day, all contributed to success of the workshop.

There were five sessions organized as follows:

- Mobility,
- Modeling & Simulation of Wireless Networks,
- Resource Allocation in Wireless Networks,
- Routing in Wireless Networks,
- Applications of Wireless Networks.

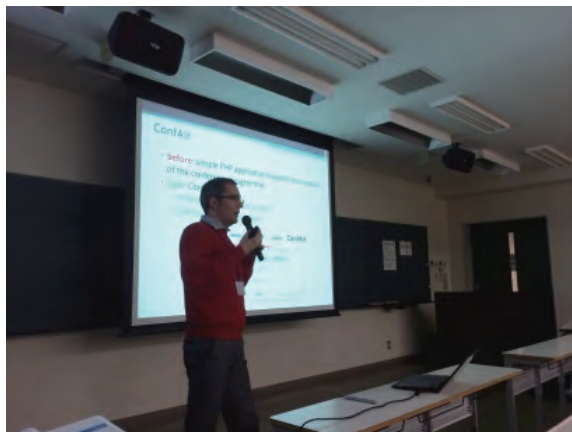


Fig. 3 Dr Maciej Piechowiak giving talk on “*I-Discover: IEICE Europe Section Experiences*”.

The WNW, except for the main track, also included known keynote speakers from the most important Polish universities presenting overviews of current research in important areas [3]:

- Dr. Krzysztof Gierłowski, Gdansk University of Technology; “*Ubiquity of client access in heterogeneous network environment*” – Fig.3,
- Dr Tomasz Bilski, Poznan University of Technology; “*Security Issues of Innovative Wireless Transmission Techniques*”,
- Dr Piotr Kiedrowski, University of Technology and Life Sciences in Bydgoszcz; “*Interaction of Retransmission on Effectiveness of Data Reading in Wireless Communication Systems Based on Short Range Devices*”.
- Prof. Maciej Stasiak, Poznan University of Technology; “*Queuing Models for Wireless Mesh Networks*”.

The next IEICE Wireless Networks Workshop in 2015 will be organized in Prague (Czech Republic).

4. IEICE Europe Section and I-Discover project

Dr Maciej Piechowiak, a member of Europe Section of the IEICE, participated in IEICE General Conference which was held in Niigata (Niigata University) from 18th to 21st March 2014. The IEICE has funded the grant covering travel costs and conference participation for members cooperating on the Knowledge Discovery (I-Discover) project. Dr. Maciej Piechowiak participated in panel discussions devoted to the organization activities and gave a lecture: “*I-Discover: IEICE Europe Section Experiences*”, which met with great interest of the participants and I-Discover developers.

In the framework of the IEICE EUS Maciej Piechowiak develops conference management system ConfAir (<https://confair.ieice-europe.org>), which enables integration with I-Discover.

ConfAir is also the content management system and allows to manage the conference website. It combines the best features of well-known conference management systems (EDAS, EasyChair). ConfAir is also the only application cooperating with the I-Discover

The system was initially created for IEICE ICTF conference and was used for the first time during IEICE Wireless Network Workshop in December 2013. Currently, the ConfAir is used for website management and as conference management system by organizers and participants of 2014 IEICE Information and Communication Technology Forum.

5. IEICE EUS and Special Section in TCOM

IEICE Europe Section also is involved in the journal activities. In 2014, members of the IEICE EUS were co-responsible for preparation of Special Section on EU’s FP7 ICT R&D Project Activities on Future Broadband Access Technologies in Conjunction with Main Topics of 2013 IEICE ICT Forum in IEICE TRANSACTIONS on Communications [4].

6. Conclusion

On behalf of the IEICE Europe Section chairs I would like to thank the authors, reviewers and the IEICE members for their contribution to the success of our activities in 2013.

I would also like to thank the IEICE and the IEICE-CS for their financial sponsorship which ensured that the our conferences were open not only to the authors of the accepted papers and registered participants, but also to all students interested in information and communication technology.

7. Reference

- [1] Amir Ligata, “Report on 2013 IEICE Information and Communication Technology Forum”, IEICE Communications Society – GLOBAL NEWSLETTER Vol. 37, No. 3, pp. 8-9, 2013.
- [2] Proceedings of 2013 IEICE ICTF: <http://i-scover.ieice.org/iscover/page/PUBLICATION-C42C7BF3-9B5A-A0FD-6EED-F02407B6E5EF>
- [3] Piotr Zwierzykowski, “The 1st IEICE Wireless Network Workshop WNW 2013 Held at Poznan University”, IEICE Global Plaza—Monthly community plaza in English for students, faculties and engineer, Vol. 97, No. 2, p. 173, 2014
- [4] IEICE Communications Society – GLOBAL NEWSLETTER Vol. 37, No. 3, p. 44, 2013.

Introduction of IEICE Beijing Section

Tao Zhang
Tsinghua University



1. Current situation

IEICE Beijing Section was established in 2007. Till 2013, it already has more than 280 members, which including 81 student members. In the past six years, it has organized 14 special lectures which invited famous professors from the world to introduce their research achievements. In addition, IEICE Beijing Section has co-sponsored several international conferences. Each year it organizes an activity of IEICE Beijing Section members to improve the communication. It also nominates many persons to join IEICE overseas membership.

2. R & D in the Beijing area

In the IEICE Beijing Section, the R&D research areas focus on Intelligent Autonomous Control, Biology Information Systems, Artificial Transportation Systems, Renewable Energy Research, Cloud Service, Intelligent Information Processing, Optical and Wireless Convergence, New Generation Networks, Internet of Things, Cloud Computing, Big Data Processing and Service, etc. The researchers can obtain the research funds from government or company.

3. Main Activities in 2013

On Sept. 20, 2013, Prof. Akio Ikeda, a Professor of Kyoto University and Prof. Masatoshi Nakamura, a Emeritus Professor of Saga University of Japan, Fellow of the Society of Instrument and Control Engineers (SICE), have respectively given special lectures on their research achievements in the School of Medicine of Tsinghua University (Fig. 1). Prof. Akio Ikeda's



Fig. 1 A photo of special lectures by Prof. Akio Ikeda and Prof. Masatoshi Nakamura



Fig. 2 A special lecture by Prof. Hiroyoshi Yamada

presentation title is “Digital EEG recording and reading in neurology patients” and Prof. Masatoshi Nakamura's presentation title is “Automatic EEG interpretation”. EEG is a kind of neurobiological signal from human brain. It is a very important signal to extract human intention or diagnose the illness from human brain. About 20 attendants attended their lectures and made discussion on these topics.

On Oct. 28, 2013, Prof. Hiroyoshi Yamada of Niigata University gave a special lecture, entitled “Fundamental MIMO Radar and Its Applications” for one hour (Fig. 2). Then he answered some questions and had some discussion with participants for thirty minutes. After that, Dr. Yi Cui of Niigata University gave a lecture entitled “Recent Advances in Model based Scattering Power Decomposition for Polarimetric SAR Data” for one hour. Then he also answered some



Fig. 3 A photo of a lecture by Mr. Yutaka Miyamoto

questions and discussed some problems with participants. The lecture meeting was held at the meeting room of Rohm Building, Tsinghua University. The number of participants was about 20.

On Nov. 15, 2013, Mr. Yutaka Miyamoto, Senior Distinguished Researcher and Group Leader of NTT Network Innovation Laboratories, was invited to give a talk in Asia Communications and Photonics Conference (ACP2013, <http://www.acp-conf.org/2013>) as a cooperation event of IEICE Beijing Section and ACP. The title of his talk is “Crosstalk-managed multicore fiber transmission with the capacity beyond 1 Pbit/s.” The abundant content attracted lots of audients from different countries. In order to widen the communication with more teachers and young students, Mr. Yutaka Miyamoto was also invited to visit Beijing University of Posts and Telecommunications (BUPT) and delivered a lecture titled “High capacity optical transmission beyond 1 Pbit/s using crosstalk-managed space division multiplexing” in Nov. 12 (Fig. 3). Associate Prof. Yongmei Sun chaired the lecture meeting. About 40 attendants attended this lecture and discussed technical issues with each other.

On Sep. 24, 2013, Prof. Kenzo Takahashi (Fig. 4)

visited IEICE Beijing Section and introduced I-Scover, IEICE Knowledge Discovery [1], to Prof. Tao Zhang (Tsinghua University) and Associate Prof. Yongmei Sun (BUPT). To promote the I-Scover to more researchers, Associate Prof. Sun arranged the I-Scover leaflet to be on ACP2013 (Fig. 5). Many ACP attendants showed their interest and took I-Scover leaflets.

4. Reference

- [1] IEICE Knowledge Discovery
<http://i-scover.ieice.org/>



Fig. 4 Visit of Prof. Kenzo Takahashi to IEICE Beijing Section



Fig. 5 I-Scover leaflet distributed in the conference of ACP2013.

IEICE Vietnam Section – a Bridge to Enforce the Academic Relations between Vietnam and Japan

Ngoc-Binh Nguyen, Xuan-Tu Tran
VNU Univ. of Engineering and Technology, Hanoi, Vietnam



1. Introduction

The IEICE Vietnam Section has been established in 2013 as an international section of the IEICE, Japan. The Section aims to promote the academic meetings & collaborations between the scientists, the universities, the R&D companies from Vietnam and Japan as well as the worldwide in the fields of Electronics, Information Technology and Communications.

2. Main R&D Trends at the Section

The activities of the Section members cover almost research and development areas in Information and Communication Technologies (ICT) and relevant technologies. Currently, the members of the Section and their research group are investigating to the following R&D trends:

- Computer sciences: Image Processing, Image Compression, Image Recognition, Genomic Map Processing, Natural Languages Processing, especially Vietnamese voice and characters...;
- Communications: MIMO, SDR, 5G, Femto-Cell Networks, Antenna Design and Optimization, Beamforming Techniques, Remote Sensing...;
- Electronics Circuits and Devices: focusing on VLSI Circuits Design such as System-on-Chip, Low Power Techniques, Mix-Signal Design, and RF devices...

3. Aims and Expectations

As the rapid evolution of the ICT in Vietnam last decade, a high demand on human resource education and training has been addressed. The question is how to fill the gap between the need of the ICT development and the current capacity. In this situation, Vietnamese government has made several potential strategies for developing the ICT industry; however, it lacks of the contributions from the professional societies. To response this issue, the IEICE Vietnam Section has been established as a result of recent collaborations at both industry and academic sectors between Vietnam and Japan. The aims and expectations as well as the future plan of the IEICE Vietnam Section can be described as follows.

The IEICE Vietnam Section has been established to response:

- The high demands in the internationalization of professional activities;

- The collaborations between Vietnam and Japan at both industry and academic sectors.
The IEICE Vietnam Section aims at:
- Contribute to professional activities/ collaborations between academic & industry sectors related to ICT fields
- Contribute to academic & industry collaborations between Japan & Vietnam, and other countries.
- To enforce/sponsor the academic meetings, activities such as the IEICE International Conferences on Integrated Circuits, Design, and Verification (ICDV).



Fig. 1 Representative office of the Section.

4. First year's activities

The IEICE Vietnam Section was established in early of 2013. The Section quickly started its activities by a lecture meeting and inauguration ceremony on 15th March 2013, sponsored by the IEICE [1].



Fig. 2 Inauguration Ceremony.

After that, the Section has organized many activities such as seminars and meetings to build the links between the experts coming from different universities/companies and promote the collaborations between them. In particular, this year the Section collaborated with the IEICE ICD, IEICE VLD committees and the universities in Vietnam to organize the 2013 IEICE International Conference on Integrated Circuits, Design, and Verification (ICDV 2013) held at Ho Chi Minh city from 15-16 November 2013 (with more than 100 participants from many countries such as Japan, Vietnam, Israel, India, Belarus, Korea, Malaysia...). This is one of the meaningful events in Vietnam to celebrate the 40 years collaboration between Vietnam and Japan [2].



Fig. 3 ICDV 2013 conference.

The ICDV 2013 is renewal one as Integrated Circuits, Design, and Verification as a result of the establishment of the IEICE Vietnam Section in early 2013. The previous ICDVs (Integrated Circuits and Devices in Vietnam) have been organized in Ho Chi Minh city (2010), Hanoi (2011), and Danang (2012) by the IEICE ICD and the universities in Vietnam as the only international forum outside Japan. Then, the ICDV has become an international event where the participants can discuss leading edge research and development subjects of the integrated circuit and device field. The event has served as a vehicle for a variety of exchanges and interactions among researchers and engineers, industry and academia, international communities for the future of LSI and related fields.

This year, there are totally of 48 accepted papers (24 as oral presentations and 24 as poster presentations). In particular, beside the regular presentations, there are 3 keynotes, 3 invited presentations, and a special talk from TJMW (“Thai-Japan MicroWave”). It is a good mix of digital, analog, and RF circuits including low power and voltage techniques, advanced VLSI designs, and their applications for image/video processing, wireless communications, and so on.

In addition, the Section has also supported for the other conferences organized in Vietnam such as RIVF 2013, KSE 2013, Vietnam-Japan Symposium on Antenna and Propagation (VJSAP 2014) in Hanoi.



Fig. 4 VJSAP 2014's social event.

In addition, the Section also takes these opportunities to recruit more members for the IEICE and help members/ future members to complete registration for the year of 2014.

5. Plan of actions in 2014

In 2014, we will organize two main scientific events:

- Inter-Universities Workshop on Electronics & ICT. The objective of this workshop is to establish an open forum for scientists from different universities to exchange their ideas and research results in electronics and ICT.
- The 5th International Conference on Integrated Circuits, Design, and Verification (ICDV 2014), Hanoi on the occasion to celebrate 10th anniversary of VNU University of Engineering and Technology. The submission deadline is the 15th July 2014. More information can be found at [3].

In addition, the Section will sponsor for the following scientific events:

- The 2014 National Conference on Electronics, Communications and Information Technology (REV-ECIT 2014), 18-19 September 2014, Nha Trang, Vietnam.
- The 6th International Conference in Knowledge and Systems Engineering (KSE 2014), 9-11 October 2014, Hanoi, Vietnam. More information can be found at: <http://uet.vnu.edu.vn/kse2014/>
- The 7th International Conference on Advanced Technologies for Communications (ATC 2014), 15-17 October 2014, Hanoi, Vietnam. More information can be found at: <http://rev-conf.org/>

For the other activities, the Section will encourage Vietnamese scientists to contribute and submit their works to IEICE journals/conferences support the collaborations and relationships between ICT-related academic & industry sectors, contribute to the education programs in ICT fields at the universities.

6. Reference

- [1] IEICE Global Plaza, no.55, Aug., 2013.
- [2] IEICE Vietnam Section's website: www.uet.vnu.edu.vn/ieicevn
- [3] The official website for the ICDV conferences: www.uet.vnu.edu.vn/icdv

Overview of the IEICE Korea-Electronics Section

Jang-Kyoo Shin
Kyungpook National University, Daegu, Korea



1. Introduction

IEICE Korea-Electronics section is one of 11 IEICE overseas sections and one of 3 IEICE Korea sections (Communication, Electronics, Information). There are over 1,000 IEICE members in Korea and approximately 200 members are active in the IEICE Korea-Electronics section. The section was represented by Prof. Duk-Gyoo Kim at Kyungpook National University, Daegu, Korea, from 2008 to 2011. Since 2012, the section is represented by Prof. Jang-Kyoo Shin at Kyungpook National University.

2. Mission

The mission of the IEICE Korea-Electronics section is to promote scholarly growth, industrial advancement and cultivation of human resources in the field of electronics.

3. Recent Activities

Main activities of the IEICE Korea-Electronics section are aimed to introduce the IEICE to the Korean electronics community, so that many Korean students and engineers are interested in IEICE and thus become members of IEICE. Once a year, a Japanese university professor in the field of electronics is invited to give an IEICE sponsored lecture in Korea.

2012 ITC-CSCC (International Technical Conference on Circuits/Systems, Computers and Communications) which was co-sponsored by IEICE in Japan, IEEK in Korea and ECTI in Thailand was held in Sapporo from July 15 to July 18 in 2012. Over 100 Korean members of IEEK attended the conference and it was a good opportunity for them to know about IEICE. They were encouraged to join IEICE during the conference.

On the 17th of December in 2012, the IEICE Korea-Electronics Section organized a special seminar on “Integration of Optical and Electronic Devices”, which was sponsored by IEICE and was held at Kyungpook National University (KNU) in Daegu, Korea. Professor Akihiro Wakahara at Toyohashi University of Technology in Japan was invited to give a talk at the seminar. More than 50 peoples including professors and graduate students attended the joint seminar. After the seminar, Professor Jang-Kyoo Shin from KNU introduced the IEICE and its Korea-Electronics Section. Organization, activities and membership benefits were explained. Visiting IEICE homepage was encouraged.

In August 2013, the IEICE members in Korea-Electronics section were encouraged to submit papers to the special section in IEICE Transaction on Electronics on Recent Advances in Simulation Techniques and Their Applications for Electronics.

There were many inquiries from the IEICE Korea-Electronics Section members regarding the special section in the IEICE Transaction on Electronics.

On the 24th of February in 2014, the IEICE Korea-Electronics section organized a special lecture at Kyungpook National University (KNU), Daegu, Korea. The special lecture was sponsored by IEICE and Professor Keiichiro Kagawa at Shizuoka University in Japan was invited to give a talk on “Next-generation multi-lens cameras and CMOS image sensors”. Many IEICE members in Korea who are interested in CMOS image sensors attended the special lecture since those are the key components in the electronics technology. At the end of the special lecture, Prof. Jang-Kyoo Shin from KNU introduced the IEICE and its Korea-Electronics section. Benefits of memberships and methods of paper submission to IEICE Transactions was explained in detail.



Fig. 1 Professor Wakahara during the IEICE seminar on December 17, 2012.



Fig. 2 Professor Kagawa during the IEICE lecture on February 24, 2014.

4. Future Plans

An IEICE sponsored seminar is under planning in the emerging fields of IT, NT or BT for the year 2014. A Japanese university professor will be invited to Korea in December for the seminar.

2014 ITC-CSCC will be held in July in Phuket, Thailand and Korean participants of the Conference will be encouraged to join IEICE.

OFS Laboratories in New Jersey

Kazunori Mukasa
OFS Laboratories



1. Introduction

With a heritage dating back to Alexander Graham Bell, OFS has been at the forefront of optical communications technology. OFS is part of Furukawa Electric Company and a world-leading designer, manufacturer and provider of optical fiber, optical fiber cable, connectivity, FTTX and specialty photonics solutions. Since it achieved a world first in finding practical application for optical fiber cables in 1974, OFS has offered an extensive lineup of products as one of the world's leading optical fiber manufacturers.

OFS Laboratories, formerly a part of Bell Laboratories, is the research center of OFS. Researchers in OFS Labs continue their career from Bell Labs and the spirit of challenging themselves and their team for real innovations. OFS Labs main office is in Somerset, which is about a one hour drive from the Manhattan area. The atmosphere in Somerset is quite different from the Manhattan. The natural environment with a host of deer, raccoon, rabbit and squirrels calling the campus home makes a great place for researchers to concentrate on innovations in optical fiber and fiber based devices that are generated from laboratories.



Fig. 1 Building of OFS Laboratories

2. Our recent focuses

Research and development of new optical fibers and new fiber based device is a main mission of OFS labs. OFS Labs membership is focused on five core areas.

- Glass manufacturing technologies
- Novel transmission fibers for high-capacity
- New fibers for range of industries
- Fiber lasers
- Fiber based sensors

These projects are supported by production divisions as well as U.S. governments and other partners.

3. Details of our activities

Recent projects and activities for the OFS Labs team include:

Novel transmission fibers for SDM transmissions

Recently, multi-core fibers (MCFs) to realize space division multiplexing (SDM) are of great interest in the telecom area. OFS Labs has developed long-length multi-core fibers keeping low crosstalk between cores for SDM transmissions. Ultra high-capacity transmissions (>100Tb/s) have been demonstrated by using the MCFs [1]. We also developed multi-core EDFAs, which potentially improve power consumption as well as the cost in the future [2].

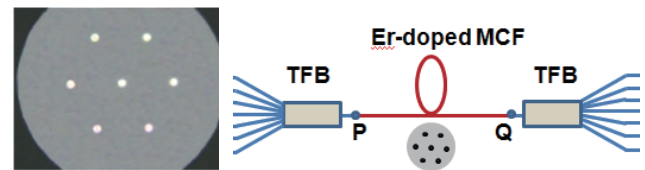


Fig. 2 A cross section of MCFs (Left) and a configuration of multi-core EDFAs (Right)

We also developed MCFs and related devices for data center applications, where transmission path density or cable congestion has become an important issue.

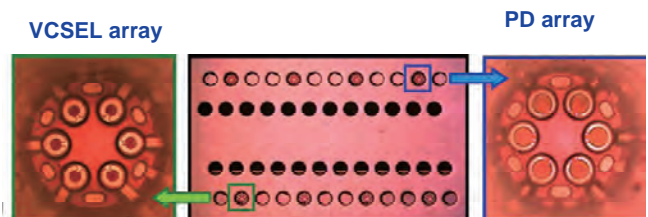


Fig. 3 Configurations of data centers [3]

PBGFs for sensor applications

Hollow-core Photonic Bandgap fibers (PBGFs), which confines the most of the light within the air-core, have a huge potential to overcome the limits of glass core fibers. We are developing PBGFs for a sensor project. The target is quite challenging. For example, both low loss and singlemodeness are required for the PBGFs but realizing these two properties simultaneously has been very difficult. We solved this problem by using side-core structure (Fig.4) [4]. By

adding side core next to the center core, only higher order modes couples to the fundamental mode in the side core and these modes easily leak out from the fiber as shown in fig.5. By using this concept, we can use large size core to reduce attenuation loss while keeping practical single mode operations. Now, low loss and SM PBGFs have been realized using this novel concept.



Fig. 4 An image of tri-core PBGFs

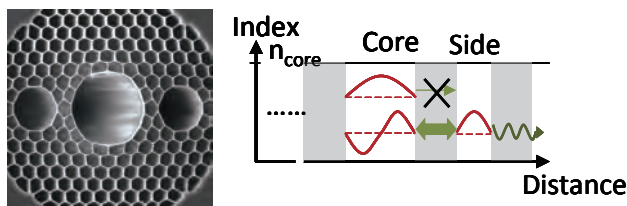


Fig. 5 Concept of realizing SM operations

High power fiber lasers

High power fiber lasers are also important project for OFS Labs. Now, the output powers of 100-1000W and peak powers of 10k to 1MW are the targets.



Fig. 6 Picture of high power laser cavity

We are developing all key components in house, including specialty fibers and tapered fiber bundles (Fig.6). The researchers also proposed some unique technologies for fiber lasers. One good example is HOM (Higher order mode) fibers. HOM fibers support only one high order mode (which is a stable single mode) by using a mode converter, which has very high conversion efficiency. The HOM showed quite interesting properties, which cannot be realized by conventional fundamental mode fibers [5]. Very large mode area and unique dispersion properties are some examples of the unique properties that are beneficial for fiber lasers.

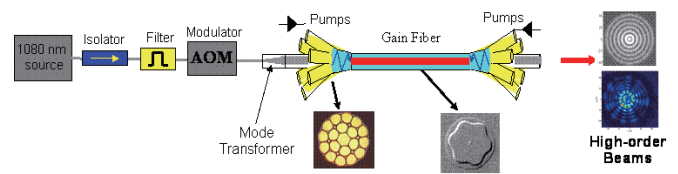


Fig. 7 A configuration of HOM fiber laser

Nano-wire based optical delay line

Researchers at OFS Labs also develop many types of fiber based sensors. Nano-wire technology, where fiber diameter was tapered down to nano meter range, is one of the innovative sensor technologies. The nano-wire has a large evanescent field, and it can be used for gas sensing, for example.

We recently developed nano-wire based delay line as well, with record delay of 2.58ns for 100 ps pulse [6]. A nano fiber, where the surface was annealed by a CO₂ laser, has a large evanescent field and the field resonantly couples into the whispering gallery mode of the glass bottle. The bottle was optimized for ideal pulse delay and record slow light of c/250 was achieved with this resonator. Loss was also low, 1.12dB/ns.

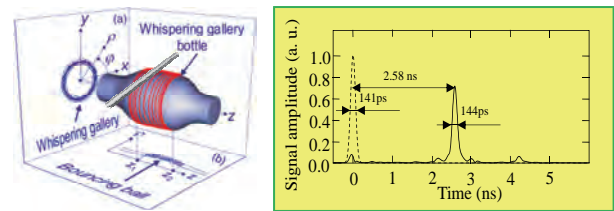


Fig. 8 Design of nano-wire based delay line (Left) and delay measurement results (Right)

Other areas

The topics introduced above are some examples of OFS Labs recent research results. Other than these results, a lot of remarkable results have been realized from fundamental studies on glass properties and new fiber manufacturing methods to optical fiber based novel devices.

4. Summary

With a rich heritage being continued from Bell Laboratories, OFS Laboratories has generated critical innovations. With a key focus on five areas, remarkable results in each area have been achieved. MCFs for high capacity transmissions and data center, PBGFs for sensor applications, high power laser using HOM fibers, and nano-wire based sensors and optical delay lines are examples of recent achievements. As a basic research laboratory in OFS and one of the leading research institutes all over the world, OFS Labs gives significant and useful insights as well as novel products to OFS and parent company, Furukawa Electric for better solutions in a range of industries.

5. Reference

- [1] B. Zhu et al., “112-Tb/s Space-division multiplexed DWDM transmission with 14-b/s/Hz aggregation spectral efficiency over a 76.8-km seven-core fiber,” *Optics Express*, Vol. 19, Issue 17, pp.16665-16671, (2011).
- [2] K.S. Abedin et al., “Cladding-pumped erbium-doped multicore fiber amplifier,” *Optics Express*, Vol.20, Issue 18, pp. 20191-20200, (2012).
- [3] B.G. Lee et al., “Multimode transceiver for interfacing to multicore graded-index fiber capable of carrying 120-Gb/s over 100-m lengths,” 23rd Annual Photonics Society Meeting, ThB 6, pp. 564-565, Nov., (2010).
- [4] J.M. Fini et al., “Suppression of Higher-Order Modes in Aircore Microstructure Fiber Design,” *CLEO-QELS 2006, CMM4*, (2006)
- [5] S. Ramachandran et al., “Light propagation with ultralarge modal area in optical fibers,” *Optics Letter*, Vol.31, Issue 12, pp. 1797-1799, (2006)
- [6] M. Sumetsky, “Delay of Light in an Optical Bottle Resonator with Nanoscale Radius Variations: Dispersionless, Broadband, and Low Loss,” *Physics Letter 111*, pp163901-163906, (2013)

Report on the 30th IN/NS Research Workshop

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Atsushi Hiramatsu^{†††}, Shigeo Urushidani^{††††}, Hiroto Nomura[†], Yuichi Ohsita^{††},
Daisuke Arai^{†††††}, Yuminobu Igarashi[†], Hidetsugu Kobayashi[†],
and Toru Asami^{†††††††}

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^{††††}NII, ^{†††††}KDDI R&D Laboratories Inc., ^{†††††††}The Univ. of Tokyo

1. Introduction

The 30th IN/NS Research Workshop took place in Miyazaki, Japan, March 5-6, 2014. The workshop was sponsored by the technical committee on IN (Information Networks) and NS (Network Systems) of the IEICE Communications Society, and aimed to discuss the technical direction and research topics for future networks. A record showing of 161 participants underscored the success of the workshop. The overall theme of the workshop was “Vision of Information Communication Network as Life Infrastructure.” The workshop featured 10 invited talks. In addition, 50th anniversary talk of technical committee on NS was also presented.



Fig. 1 Audience-filled hall

2. Invited talks

At the beginning of the workshop, the chair of technical committee on NS, Professor Shigeo Urushidani (NII) introduced the 50th anniversary of the committee and Mr. Yasuhiro Katayama (NTT) gave a special speech.

Next, the general chair of the workshop, Professor Toru Asami (The Univ. of Tokyo), invited 10 distinguished experts. These speakers addressed new challenges in issues of network technologies for power supply, especially smart metering. Figure 2 shows photographs of the speakers.

On the 1st day, 4 speakers (Fig.3) made the following talks.



Fig. 2 Mr. Katayama (left) and Prof. Asami (right)



Fig. 3 Mr. Yui, Prof. Wakamiya, Mr. Katagishi, and Mr. Ishibashi (from top left to bottom right)

- Mr. Seita Yui (Nuclear Damage Liability Facilitation Fund) presented the policy of smart meter deployment in Japan.
- Prof. Naoki Wakamiya (Osaka Univ.) introduced the technologies for smart meter networking.
- Mr. Makoto Katagishi (Hitachi, Ltd.) reported the field trial of bi-directional communication power control.
- Mr. Koichi Ishibashi (Mitsubishi Electric Corp.) presented R&D of wireless multi-hop networks.

On the 2nd day, 6 speakers (Fig.4) gave the following presentations.

- Dr. Kenichi Hirotsu (Sumitomo Electric Industries, Ltd.) addressed the technical issues of power line communication (PLC).
- Mr. Shingo Kojima (NEC Corp.) demonstrated a smart meter communication system using 1:N wireless communications.

- Mr. Shigeru Fukunaga (Oki Electric Industry Co., Ltd.) presented the trend of 920MHz wireless communication standards and their application for smart meter networks.
- Mr. Heath Thompson (Landis+Gyr Inc.) showed the technical trends in advanced metering infrastructure.
- Mr. Hiroyuki Nakamura (NTT DATA Corp.) introduced IT systems for smart metering based on an open platform.
- Mr. Takeshi Saito (TOSHIBA Corp.) showed HEMS applications using smart meter B routes.



Fig. 4 Dr. Hirotsu, Mr. Kojima, Mr. Fukunaga, Mr. Thompson, Mr. Nakamura, and Mr. Saito (from top left to bottom right)

3. Conclusion

This year's workshop invited key persons to speak on the R&D strategy of network technologies for power supply, especially smart metering. We believe that the presentations given by the invited speakers provided fruitful insight into research and development.

The technical committees on NS and IN plan to hold next year's workshop in March 2015. Finally, we would like to express our gratitude to the workshop committee members, and particularly, Toshiki Usui (Oki), Tadashi Komatsu (NEC), Masashi Ito (TOSHIBA), Keiichi Nakatsugawa (Fujitsu Laboratories, Ltd.) and Daisuke Mashimo (Hitachi) who made this workshop possible.

Annual Report of Technical Committee on Information Networks

Hiroto Nomura[†] and Yuminobu Igarashi[†], [†]NTT Corporation



1. Introduction

The technical committee on Information Networks (IN) is one of technical committees of the Communications Society of the IEICE [1]. The IN addresses a broad spectrum of issues associated with information networks and provides a forum for researchers and engineers to discuss various research and development topics. The chairman is Prof. Tohru Asami of Univ. of Tokyo. The vice chairman is Mr. Hidetsugu Kobayashi of NTT Corporation. The secretaries are Mr. Yuminobu Igarashi of NTT Corporation and Mr. Daisuke Arai of KDDI R&D Laboratories Inc. The assistant secretaries are Mr. Hiroto Nomura of NTT Corporation and Assist. Prof. Yuichi Ohsita of Osaka Univ. This document presents the IN's annual report for activities from April 2013 to March 2014.

2. IN Activities

The IN is one of the most active technical committees of the IEICE Communications Society. The IN held two-day technical meetings 10 times from April 2013 to March 2014. Some meetings are co-organized with other technical committees such as RCS, NV, NS, CS, MoNA, IA and NWS. Many researchers participated in the meetings and reported their latest technical research and development results. The venues and the main topics of each meeting are shown in Table 1.

We also held IN/NS research workshop in Miyazaki (March 5-6) with technical committee on NS (Network Systems) of the IEICE. The workshop commemorated 30th anniversary this year and the number of 161 participants underscored the success of the workshop.

Each technical report is submitted in a paper and published as a Technical Report of the IEICE. Authors of selected papers have received Information Networks Research Awards in which the ceremony is held in March every year.



Fig. 1 Winners of IN Research Award in 2013 (From left to right) H. Kobayashi (Vice Chairman), Y. Ohsita, T. Otoshi, T. Ogawara (on behalf of T. Sasaki),

This year, the following 3 excellent papers were selected from 204 papers.

- Daisuke Arai, Kenji Hori, Akira Idoue, “Proposal and Implementation of Configuration Management Scheme for Machine-to-Machine Devices.”
- Tatsuya Sasaki, Yu Suzuki, Yoshihiro Kawahara, Tohru Asami, “An Implementation of Compressed Sensing for Soil Moisture Monitoring on Sensor Nodes and Evaluation of Soil Moisture Sensors”
- Tatsuya Otoshi, Yuichi Ohsita, Masayuki Murata, Yousuke Takahashi, Noriaki Kamiyama, Keisuke Ishibashi, Kohei Shiomoto, Tomoaki Hashimoto, “Evaluation of Traffic Engineering Considering Traffic Prediction”

Reference

- [1] Technical Committee on Information Networks
<http://www.ieice.org/cs/in/eng/>

Table 1 Technical meetings in FY2013

Date	Venue	Main topics	Num. of reports	Num. of participants each day
Apr. 18-19	Kyotofu-Chusho-Kigyo-Kaikan (Kyoto)	Home Area Network(HAN), Green/Energy Saving ICT, Smart Grid, Contingency Plan/BCP, Data Analysis/Processing Platform, Big Data, etc.	11	16, 19
May 16-17	Kikai-Shinko-Kaikan Bldg. (Tokyo)	Wireless Internet, Multi-hop network, Mesh network, Network coding, Cross layer technique, Wireless communication, etc.	12	52, 55
Jun. 20-21	Univ. of Fukui (Fukui)	Data Analysis/Processing Platform, Security and Privacy, Network Coding/Network Algorithms, Robustness, DDoS, Authentication/ID Management, etc.	13	32, 27
Jul. 18-19	Hokkaido Univ. (Sapporo)	Cloud Networking, SDN, OpenFlow, Virtual Private Network (VPN), Overlay Network/P2P, Network Configuration, etc.	22	54, 39
Sep. 12-13	Tohoku Univ. (Sendai)	Post IP networking, Next-generation network (NGN)/New Generation Network (NWGN), Contingency Plan/BCP, Network Coding/Network Algorithms, Session Management (SIP/IMS), Internetworking/Standardization, Network Configuration, etc.	13	68, 52
Oct. 17-18	Osaka Univ. (Suita)	Contingency Plan/BCP, Robustness, Security and Privacy, Authentication/ID Management, Web Service/SOA/ROA Platform, Social Networking Service (SNS), etc.	10	33, 33
Nov. 21-22	Kumamoto Univ. (Kumamoto)	Home Area network (HAN), Ubiquitous Network, Mobile Network, Cloud computing, Context Awareness, Location information service, Mobile Application, etc.	12	34, 32
Dec. 19-20	Hiroshima City Univ. (Hiroshima)	Performance Analysis and Simulation, Robustness, Traffic and Throughput Measurement, Quality of Service (QoS) Control, Congestion Control, Overlay Network/P2P, IPv6, Multicast, Routing, DDoS, etc.	17	57, 54
Jan. 23-24	Nagoya International Center (Nagoya)	Network Software, Contents Delivery/Contents Exchange, Social Networking Service (SNS), Data Analysis/Processing Platform, Big Data, etc.	26	39, 35
Mar. 6-7	Miyazaki Seagaia (Miyazaki)	General topics and workshop (30 th anniversary)	64	186, 193

Report on the 6th IEICE Communications Society (CS) Welcome Party

Fumio Futami, Michiharu Nakamura, Satoshi Ohzahata, Eriko Takeda, Tetsuya Yokotani and Yoshihiro Ishikawa

IEICE-CS Directors, Planning and Member Activities



1. About Welcome Party

Welcome Party is one of IEICE-CS major activities held at every IEICE General Conference. The objective of having this party is to provide young engineers especially students with a good opportunity to meet and talk friendly with experienced researchers and engineers in various organizations. It had been held at the IEICE Society Conferences in September from 2008 to 2011. However, considering school year in Japan (starting in April), in 2013, we moved it at General Conferences in March so that it can help students to think about their possible engineering carrier just before starting their new school year.

2. Welcome Party at 2014 General Conference

The 6th Welcome Party was held on 18th March 2014, the first day of IEICE General Conference at Niigata University in Niigata, Japan. We had 201 participants including 71 students. It was a feature that many foreign students attended the party this year

The first part of the party began with a welcome message from CS president, Prof. Iwao Sasase (Fig. 1). Then it was followed by introductions of Technical Committee activities and research fields by Chair of Council of Technical Committee Representatives, Dr. Soichiro Araki, (Fig.2) and three Technical Committees of IEICE-CS, Communications Systems (CS), Network Systems (NS), and Wireless Power Transmission (WPT) (Fig. 3). Next, 16 companies and institutes put up poster exhibitions in the second part gave brief speeches for the students (Fig. 4).



Fig. 2 Introduction of IEICE-CS Technical Committees activities and research fields from Dr. Soichiro Araki



Fig. 3 Presentations from Technical Committees



Fig. 1 Welcome Message from Prof. Iwao Sasase

After all speeches, the second part of the party started with a toast from CS Vice President, Atsushi Hiramatsu (Fig. 5), where foods and drinks were served. During the second part, all participants enjoyed food and drinks (Fig. 6) as well as free talk and discussion at the poster panels (Fig. 7). The poster panels were prepared by 16 companies that are active in IEICE-CS and also following 18 Technical Committees, Electromagnetic Compatibility (EMCJ), Communication Quality (CQ), Information and Communication Management (ICM), Information Networks (IN), Smart Radio (SR), Ambient intelligence and Sensor Networks (ASN), Communication Systems (CS), Energy Engineering in Electronics and Communications (EE), Network



Fig. 4 Speeches from industries for young researchers



Fig. 7 Talk and discussion at poster panels



Fig. 5 Toast from CS Vice President Atsushi Hiramatsu



Fig. 8 Concluding remarks from CS President-Elect (current CS President), Dr. Kou Miyake



Fig. 6 Enjoying food and drinks

Systems (NS), Optical Communication Systems (OCS), Optical Fiber Technology (OFT), Photonic Network (PN), Healthcare and Medical Information Communication Technology (MICT), Radio Communication Systems (RCS), Wireless Power Transmission (WPT), Mobile Network and Applications (MoNA), Communication Behavior Engineering (CBE) and Network Virtualization(NV).

Finally, CS President-Elect (current CS President), Dr. Kou Miyake concluded the party (Fig. 8).

3. Conclusion and Acknowledgement

The 6th Welcome Party was successfully held with 201 participants at the IEICE General Conference 2014 at Niigata University in Niigata, Japan. Many participants both of young and experienced looked to have enjoyed this event and answered that they wanted to have more time to talk each other in the questionnaire that we collected at the end of the event. We would like to thank all participants, especially from companies and Technical Committee members that gave speeches and/or prepared poster panels to young researchers. We hope to have their cooperation again in the next Welcome Party which will be held in March 2015 at the IEICE General Conference at Ritsumeikan University, Kusatsu, Shiga, Japan.

Report on NS English Session at 2014 IEICE General Conference - BS-1 Future Network Technologies for Advanced Information and Communications Society -

Kouji Hirata^{*}, Kazuhiko Kinoshita^{**}, Masashi Kaneko^{***}, Akira Shibata^{***},
Atsushi Hiramatsu[†], and Shigeo Urushidani^{††}

^{*}Kansai Univ., ^{**}Osaka Univ., ^{***}NTT Corp., [†]NTT-AT Corp., ^{††}NII



1. Introduction

The 2014 IEICE General Conference was held at Niigata University in Niigata, Japan, on March 18-21, 2014. In the conference, the IEICE Technical Committee on Network Systems (NS)[1] provided the complete English Symposium Session entitled “Future Network Technologies for Advanced Information and Communications Society” as one of the eight Symposium Sessions hosted by IEICE Communications Society.

2. Background

NS has managed such an English Session since 2005, in order to promote the globalization of IEICE. The Session has provided the participants staying in Japan or joining from overseas with more opportunities of presentations and discussions in English.

This year, 76 papers were submitted to the Session. The number of submitted papers increased by 23% compared to the last year and it is the largest number in



Fig. 1 Presentation in English Session BS-1.

the history. Table 1 shows the historical theme and the number of presented papers.

3. Topics and Statistics

The papers were classified into 15 sub-sessions according to the topics. The sub-sessions were held every day during the General Conference. In each session, various topics about future network technologies such as wireless networks, network virtualization, photonic networks, contents centric networks, green ICT, and others were discussed as shown in Fig. 1.

Twenty to thirty General Conference participants attended each sub-session. The discussion between speakers and participants in each sub-Session were very active and they exchanged opinions each other in detail. Since the time assigned to question-and-answer periods was limited, they continued discussion here and there even into the break periods.

4. Conclusion

NS English Session was very successful due to many excellent papers and active discussions. The organizer believes that this activity is fruitful for all attendees and effective for the globalization of IEICE. In addition, NS will select the best papers and award a prize of the session in the near future to encourage their continuous activities.

Finally, special thanks to Prof. Yoshiaki Tanaka, who made a great contribution in call for papers, utilizing his nation-wide academic authority and human relations.

5. Reference

- [1] IEICE Technical Committee on Network Systems web site, <http://www.ieice.org/~ns/>.

Table 1 History of NS English Session.

Year	Theme	#
2005	Network Controls for High-Quality Communications	11
2006	Technologies and Architectures for Ubiquitous Network Systems	19
2007	Traffic Measurement, Analysis and Network Controls for Comfortable Network	12
2008	Network Management Technologies for Next Generation Network	20
2009	System, Control and Design Technologies for Emerging Network	34
2010	Emerging Network Technologies for Ambient Information Society	34
2011	Network Design, Management and Control for Future Networked Systems	43
2012	Management and Control Technologies for Innovative Networks	43
2013	Network Control and Management Technologies for Next Generation Applications	62
2014	Future Network Technologies for Advanced Information and Communications Society	76

Annual Report of Technical Committee on Information and Communication Management (ICM)

Yuji NOMURA (Fujitsu Lab.), ICM Secretary
 Takeshi MASUDA (NTT), ICM Secretary
 Kazuma YUMOTO (Hitachi), ICM Assistant



1. Introduction

The technical committee on ICM (Information Communication Management) is a technical committee of the Communications Society of the IEICE [1]. This article briefly reports the last year's activities of ICM, and introduces the upcoming English Session.

2. Activities

The ICM held two-day technical meetings 5 times from May 2013 to March 2014. The venues and the main topics of each meeting are shown in Table 1. In addition, 3 special sessions were sponsored by ICM as shown in Table 2.

Of particular note, in the English Session in 2013 IEICE Society Conference at Fukuoka Institute of Technology, the number of papers reached 55 in total. This session was hosted and presented entirely in English. The purpose of this Session is to promote the globalization of IEICE by providing the participants staying in Japan or joining from overseas with more

Table 1 ICM Technical Meetings in FY2013

No	Date	Venue	Main Topics	Joint
1	May. 9-10	Hirosaki Univ. (Aomori)	Service Management, Operation/Administration, Security Management, etc.	IPSJ-IOT IPSJ-CSEC
2	July 11-12	Future Univ. of Hakodate (Hokkaido)	Management Function, Management Theory, etc.	-
3	Nov. 14-15	Fukue Cultural Hall (Nagasaki)	Network Quality, Network Management and Measurement, Network Virtualization	CQ, NS, NV
4	Jan. 16-17	Nagasaki Museum of History and Culture	Applications and Research Opportunities of Life Log, Office Information System and Business Management	LOIS
5	Mar. 13-14	Eef Information Plaza (Okinawa)	Element Management, Management Functionalities, Operations and Management Technologies, etc.	-

Table 2 Special Sessions by ICM in FY2013

Title	Date	Remarks	Theme
English Session	Sep. 11-14	as one of Symposium Session in IEICE Society Conference	Network and Service Design, Control and Management
APNOMS	Sep. 25-27	the premier conference in the Asia Pacific region sponsored by ICM	-
ICM Workshop	Mar. 13	held in conjunction with ICM Technical Committee Meeting 5 th	Management and Possibilities on Big-Data and Open-Data
Tutorial Session	Mar. 20	as one of Symposium Session in IEICE General Conference	Management Issues on NFV/SDN



Fig. 1 Annual Award Ceremony at Kumejima

opportunities for presentations and discussions in English.

Furthermore, ICM Workshop 2013 was held in Kumejima (Okinawa pref.). In the panel session, five invited speakers presented and discussed the theme, to the obvious interest of the more than 50 attendees. A banquet was held to promote social intercourse, and at the same time, to celebrate the ICM annual award winners in 2013.

3. Awards and Upcoming Event

The winners are shown in Table 3. The English Session Encouragement Award is given to the author of the best papers of English Session, every year. ICM committee is now calling for submission for the upcoming English Session; the deadline is July 3. [1]

4. Reference

[1] ICM, <http://www.ieice.org/~icm/eng/>

Table 3 Winners of ICM Awards in FY2013

Award	Winners	Title
Research Award	Hiroki Nakayama, et al.	Enhancing Traceability Against Variations of Time Series using Automated Parameter Re-estimation Detection
	Toshio Koide, et al.	A consideration of unified topology discovery method of in-band control plane in OpenFlow-based networks
	Kimihiko Mizutani, et al.	An Implementation and Its Fundamental Evaluation of a Distributed Computing Platform Based on Structured Overlay Network
English Session Encouragement Award	Akihisa Matoba	Asymmetric RTS/CTS for Exposed Node Reduction in IEEE 802.11 Ad Hoc Network
	Kenji Kanai	Performance Analysis of Comfort Route Navigation Providing High Communication Quality for Mobile Devices



Activities of Technical Committee on Optical Fiber Technologies (OFT)

Yusuke Yamada*
NTT*,

Masaki Ohmura**
Sumitomo Electric Industries Ltd.**

1. Introduction

The OFT is one of the technical committees of Communications Society of the IEICE. One of the most important aims of our committee is to contribute to technological innovation of optical fiber technologies for development of industrial applications by focusing on the technologies from cross-sector viewpoints on the communication engineering, measurement technologies, optical devices, and materials.

2. Covered research fields

OFT concerns itself with a wide variety of research related to optical fibers and optical systems (Table 1).

Table 1 Topics

Major Topic Areas	Topics
Optical fiber sensing	Optical fiber probe, Optical fiber gyroscope, Optical fiber sensor device, Distributed optical sensing, Remote optical sensing, Optical fiber measurement, Optical reflectometry
Optical fiber Devices	Optical signal/information processing, Optical fiber interferometer, Optical fiber amplifier, Optical fiber laser, Optical fiber coupler/splitter, Optical filter
Optical fiber systems	Image/Illumination/Display, Material processing system, Medical system, Biological system, High-power system, Environmental system, Communication system
Optical fiber wiring/ installing, maintenances / operations	Testing system for optical line, Management for optical line, Reliability of optical line, Design of optical line, Construction technique for optical line, Optical connector/interconnection, Optical line components
Design of optical fiber/ cable	Characterization of optical fiber, Reliability of optical fiber, Optical propagation analysis, Analysis of optical fiber character, Optical fiber cable/Optical fiber cord, Optical fiber for various use

3. OFT Activities

The OFT holds one- or two-day technical meetings six times a year. At the meetings, many researchers participate and report the latest results of their research. The schedule from May 2014 to March 2015, consisting of six regular technical meetings is shown in Fig. 1. Several of them are co-organized with the OCS (Optical Communication Systems), LSJ (Laser society of Japan), IEE-CMN (Institute of Electrical Engineers of Japan - Communications), ITE-BCT (Institute of Image Information and Television Engineers – Broadcast Technologies), and OPE (Opto-electronics) committees. The number of the presented papers at

regular meetings in the last year was 87 and the number of participants was 310.

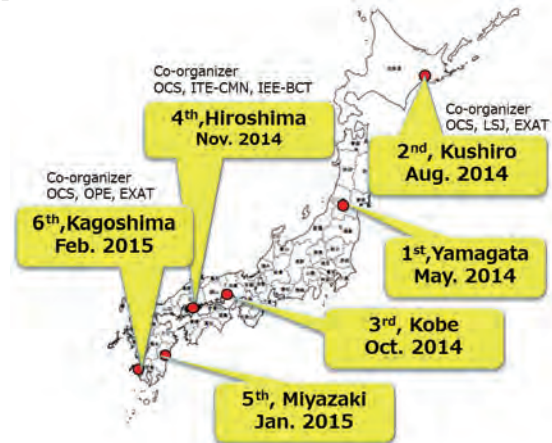


Fig. 1 Regular technical meetings

4. Public relations activities

Are you on Facebook? We send information of OFT activities through our Facebook.

<https://www.facebook.com/ieiceoft>

5. OFT Encouragement award

OFT encourage research activities of younger researchers. Since the program was launched in 2011, it has commended 9 award winners up until the 3rd award for outstanding younger researcher in 2013

Encouragement award in 2013 was as follows:

- 1) “Light Detectable Connector for Fiber Identification” by Sonomi Inoue, Sumiden Opcom, Ltd.
- 2) “Splice Loss Measurement Using End-reflection Assisted Brillouin Analysis” by Hiroshi Takahashi, NTT
- 3) “RZ-OOK to RZ-DPSK Format Conversion With All-Optical Clock Regeneration” by Naoki Oka, The University of Electro-Communications



Fig. 2 Recipients of Encouragement award in 2013

Report on ICOIN 2014

Yutaka Fukuda*, and Keisuke Ishibashi**

*Kyushu Institute of Technology

**Chair, Technical Committee of Internet Architecture, IEICE



1. Introduction

The International Conference on Information Networking (ICOIN) [1] is an international conference under the organization of Korea Institute of Information Scientists and Engineers (KIISE) with technically co-sponsored by IEEE Computer Society, and IEICE-CS Internet Architecture Technical Committee. Technical Committee of Internet Architecture (TCIA) was advised by KIISE members to support ICOIN activities, and has decided to have technical co-sponsorship of IEICE Communications Society to ICOIN from 2012. Support of IA members to ICOIN includes a distribution of Call For Papers, paper reviews and so on.

The 28th ICOIN 2014 was held in Phuket, Thailand, for 10 – 12 February 2014.

2. Statistics

Many papers were submitted to the conference from all over the world, and each paper was reviewed by at least three expert researchers. The review process was carefully managed by EDAS [2].

After the review, total 96 papers were accepted for the oral and poster presentation. The accepted 63 oral papers were categorized into 12 technical sessions, and the sessions were held in two parallel tracks. The tracks covered a wide variety of topics including “Ad hoc/sensor networks”, “Cloud computing and networks”, “Internet and Web Applications”, “Smart grid and home networks, multimedia service”, etc

3. Technical session

The various oral and poster presentations were performed for three days. For example, K. Matsuda, et al. proposed the cooperative cache sharing scheme among ISPs for reducing inter-ISP transit cost in CCN [3]. By sharing the cache contents among ISPs, proposed scheme can improve the cache hit ratio and decrease the transit traffic. J. Costa-Requena proposed a mobile architecture interconnected through a LTE backhaul composed by SDN [4]. He explained how to simplify the backhaul network by using SDN technology. S. Pukkawanna, et.al. proposed a method for detecting DoS attacks [5]. Authors use an image processing technique for detecting network probes and DoS attacks. There were also many other interesting papers, and participants and presenter had an active discussions.



Fig. 1 Poster Session Rooms

4. Conclusion

ICOIN2015 is announced to be held in Siem Reap, Cambodia. The Technical Committee of IA will continue to support ICOIN technically and hope more submissions from Japan, particularly from members of Communications Society.

5. References

- [1] <http://www.icoin.org>
- [2] <http://edas.info>
- [3] K. Matsuda, G. Hasegawa and M. Murata, “Cooperative cache sharing among ISPs for reducing inter-ISP transit cost in content-centric networking,” in Proceedings of ICON2014, pp.208-213, Feb 2014.
- [4] J. Costa-Requena, “SDN integration in LTE mobile backhaul networks,” in Proceedings of ICON2014, pp.264-269, Feb 2014.
- [5] S. Pukkawanna, H. Hazezama, Y. Kadobayashi, S. Yamaguchi, “Investigating the Utility of S-Transform for Detecting Denial-of-Service and Probe Attacks,” in Proceedings of ICON2014, pp.282-287, Feb 2014.

Special Section Calendar of IEICE Transactions on Communications

Issue	Special Section	Note
May 2015	Recent Progress in Radio Propagation	Submission due: 1 September 2014 See page 25
Apr. 2015	No special section in this issue	
Mar. 2015	Position Papers Exploring Innovative Intelligence and Technologies in Communications	To be issued
Feb. 2015	Quality of Diversifying Communication Networks and Services	To be issued
Jan. 2015	Position Papers Exploring Innovative Intelligence and Technologies in Communications	To be issued
Dec. 2014	Technologies and Architectures for Improving Scalability, Reliability, and Robustness for Future Information Networks	To be issued
Nov. 2014	Network Virtualization, and Fusion Platform of Computing and Networking	To be issued
Oct. 2014	Recent Progress in Measurement and Design Techniques on Antennas, Propagation and Wireless Systems	To be issued
Sep. 2014	Ambient Intelligence and Sensor Networks	To be issued
Aug. 2014	EU's FP7 ICT R&D Project Activities on Future Broadband Access Technologies in Conjunction with Main Topics of 2013 IEICE ICT Forum	To be issued soon
Jul. 2014	Opto-electronics and Communications for Future Optical Network	To be issued soon
Jun. 2014	No special section in this issue	
May 2014	No special section in this issue	
Apr. 2014	No special section in this issue	
Mar. 2014	Information and Communication Technology for Medical and Healthcare Applications in Conjunction with Main Topics of ISMICT2013	Vol. E97-B, No. 3

Please confirm with the following IEICE web site for the latest CALL FOR PAPERS
<http://www.ieice.org/event/ronbun-e.php?society=cs>

Call for Papers

----- Special Section on Recent Progress in Radio Propagation -----

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Recent Progress in Radio Propagation" in **May 2015**.

Clarification of radio propagation characteristics is essential for the development of wireless communication systems and wireless technologies, and there are various new research topics in the field of radio propagation. With the increase in communications capacity, MIMO technologies have become an active topic for discussion in the research field of land mobile communications. Consequently, spatial and polarization characteristics of radio waves that affect MIMO transmission performance have been investigated in more detail. Similar demand to gain capacity increases in satellite communication systems and Body Area Networks (BANs). As a result, the use of frequency bands that are higher than that used for existing systems has attracted much attention because higher frequency bands enable broadband communications. For satellite communication systems, rain attenuation characteristics in the Ka band have been investigated and propagation characteristics of millimeter waves around the body have been studied for BANs. Furthermore, in non-communication fields such as remote sensing and position detection technologies, propagation characteristics of sensors using radio waves for security measures in mainly indoor environments have been investigated recently. With the increase in computing power, propagation simulation techniques such as ray tracing and FDTD have been studied in order to apply these techniques to large-scale models to evaluate the above wireless systems and technologies.

As mentioned above, radio propagation characteristics have been studied for a wide range of wireless communication systems and wireless technologies, and investigating these topics has become even more important than before. Based on this background, this special section will be publishing papers on recent progress in radio propagation.

1. Scope

This special section aims at timely dissemination of research in these areas. Possible topics include, but are not limited to:

- Mobile and indoor propagation
- MIMO propagation
- Earth - Space and terrestrial propagation
- Body-centric propagation
- Channel characterization and modeling
- Remote sensing
- Channel sounding techniques
- UWB propagation
- Other related topics

2. Submission Instructions

The standard number of pages is 8. The page charges are considerably higher for extra pages. Manuscripts should be prepared according to the guideline in the "Information for Authors." The latest version is available at the web site, http://www.ieice.org/eng/shiori/mokuji_cs.html. The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for regular issues (60 days) because of the tight review schedule.

This special section will accept papers only by electronic submission. Submit a manuscript and electronic source files (LaTeX/Word files, figures, authors' photos and biographies) via the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx by **September 1, 2014 (JST)**. Authors should choose the Special Section on Recent Progress in Radio Propagation as a "Journal/Section" on the online screen. Do not choose [Regular EB].

Contact point:

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3. Special Section Editorial Committee

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IEICE-CS Related Conferences Calendar

Date	Conference Name	Location	Note
2 Dec - 5 Dec 2014	2014 International Symposium on Antennas and Propagation (ISAP2014)	Kaohsiung, Taiwan	Submission deadline: 4 Jul. 2014
1 Oct. - 3 Oct. 2014	The 20 th Asia-Pacific Conference on Communications (APCC 2014)	Pattaya, Thailand	Submission deadline: 1 Jul. 2014
6 Jul. - 10 Jul. 2014	OptoElectronics and Communications Conference and the Australian Conference on Optical Fibre Technology 2014 (OECC/ACOFT 2014)	Melbourne, Australia	Submission deadline: Closed
1 Jun. - 3 Jun. 2014	World Telecommunications Congress 2014 (WTC 2014)	Berlin, Germany	To be held soon
28 May - 30 May 2014	2014 IEICE Information and Communication Technology Forum (IEICE ICTF 2014)	Poznan, Poland	Done
13 May - 16 May 2014	2014 International Symposium on Electromagnetic Compatibility (EMC'14/Tokyo)	Tokyo, Japan	Done
10 Feb. – 12 Feb. 2014	The 28 th International Conference on Information Networking (ICOIN2014)	Phuket, Thailand	Reported on this issue
12 Dec. - 15 Dec. 2013	2013 IEEE Electrical Design of Advanced Packaging & Systems (EDAPS2013)	Nara, Japan	Done
23 Oct. - 25 Oct. 2013	2013 International Symposium on Antennas and Propagation (ISAP2013)	Nanjing, China	Done
23 Oct. 2013	International Workshop on Cloud Cooperated Heterogeneous Networks (CC-HetNet2013)	Osaka, Japan	Done
20 Oct. - 23 Oct. 2013	International Conference on Renewable Energy Research and Applications (ICRERA 2013)	Madrid, Spain	Done
14 Oct. - 17 Oct. 2013	17 th International Conference on Intelligence in Next Generation Networks (ICIN2013)	Venice, Italy	Done
14 Oct. - 16 Oct. 2013	International Conference on Information and Communication technology Convergence 2013 (ICTC2013)	Jeju Island, Korea	Done
30 Sep. 2013	TeleManagement Forum Tokyo Spotlight 2013 (TM Forum Tokyo Spotlight 2013)	Tokyo, Japan	Done
25 Sep. - 27 Sep. 2013	Asia-Pacific Network Operations and Management Symposium 2013 (APNOMS 2013)	Hiroshima, Japan	Done

Please confirm with the following IEICE-CS web site for the latest information.
<http://www.ieice.org/cs/conf/calendar.html>



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B (Communications)	EB (English) B (Japanese)	Fundamental Theories for Communications, Devices/Circuits for Communications, Transmission Systems and Transmission Equipment for Communications, Optical Fiber for Communications, Fiber-Optic Transmission for Communications, Switching for Communications, Switching for Mobile Communications, Network, Network Management/Operation, Internet, Wireless Communication Technologies, Terrestrial Radio Communications, Satellite Communications, Optical Wireless Communications, Antennas and Propagation, Electromagnetic Compatibility (EMC), Sensing, Navigation, Guidance and Control Systems, Energy in Electronics Communications, Terminals for Communications, Multimedia Systems for Communications, Broadcast Systems, Integrated Systems for Communications, Space Utilization Systems for Communications
C (Electronics)	EC (English) C (Japanese)	Electromagnetic Theory, Lasers, Quantum Electronics, Optoelectronics, Microwaves, Millimeter-Waves, Ultrasonic Electronics, Electronic Circuits, Electronic Materials, Organic Molecular Electronics, Electronic Components, Electromechanical Devices and Components, Semiconductor Materials and Devices, Integrated Electronics, Electron Tubes, Vacuum and Beam Technology, Electronic Displays, Superconducting Electronics, Storage Technology, Electronic Instrumentation and Control
D (Information and Systems)	ED (English) D (Japanese)	Computation and Computational Models, Automata and Formal Language Theory, Algorithm Theory, Complexity Theory, Computer Components, VLSI Systems, Computer Systems, Fundamentals of Software and Theory of Programs, System Programs, Software Engineering, Database, Contents Technology and Web Information Systems, Data Mining, Networks, Dependable Computing, Application Information Security, Distributed Cooperation and Agents, Artificial Intelligence and Cognitive Science, Human-computer Interaction, Office Information Systems, e-Business Modeling, Educational Technology, Rehabilitation Engineering and Assistive Technology, Pattern Recognition, Speech and Hearing, Image Processing and Video Processing, Image Recognition, Computer Vision, Computer Graphics, Multimedia Pattern Processing, Natural Language Processing, Biocybernetics, Neurocomputing, Biological Engineering, Music Information Processing, Kansei Information Processing, Affective Information Processing
Journal of IEICE (written in Japanese only)		

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IEICE Communications Society - GLOBAL NEWSLETTER

Submission Guideline

First version in only Japanese: May 30, 2008
Second version in only Japanese: Feb. 13, 2009
Third version in only Japanese: Jul. 22, 2010
Forth version in English and Japanese: Mar. 8, 2011
Ver 5.0 : August 10 2013

1. About GLOBAL NEWSLETTER

The Institute of Electronics, Information and Communication Engineers Communications Society (IEICE-CS) GLOBAL NEWSLETTER has been established since 2002. We quarterly publish an English newsletter every March, June, September, and December.

1.1. Goal

Our goal is to share information between overseas/foreign members and other members in IEICE-CS as a global activity, and to show IEICE presence internationally.

1.2 Category of Articles

- 1) Messages from President/Vice President
 - An inaugural message from CS President is published once per year in June. Message from CS Vice President is published properly.
 - 2) IEICE-CS Activities Now
 - IEICE General/Society Conference information/reports
 - Activities of Technical Committees
 - International activities of the society
 - 3) IEICE-CS Related Conferences Reports
 - Information/reports on IEICE-CS related conferences
 - IEICE-CS Conferences Calendar (*)
 - 4) Others
 - Essays, Laboratory activity reports, Technology reports, Messages from overseas/foreign members, etc.
 - Information from Sister Societies
 - Special topics (*)
 - 5) IEICE-CS Information
 - Call for papers
 - From editor's desk (*)
- *: planned / written by IEICE-CS Directors, Planning and Members Activities

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Basically, IEICE-CS members and readers can contribute articles. IEICE-CS Directors, Planning and Members Activities may ask non-IEICE-CS members to contribute articles. The articles should be fruitful and profitable for IEICE-CS members, **NOT** for particular organization. IEICE-CS Directors, Planning and Members Activities may not accept an article for publication if it does not follow this guideline.

2.1 Template and Language

Please use template downloadable at the URL:
http://www.ieice.org/cs/pub/global_howto.html
Please use English for all articles.

2.2 Number of pages

Two to four pages are preferable. One page article is also acceptable. The maximum number of pages is eight. When you try to entry a contribution with five to eight pages, you need to negotiate with IEICE-CS Directors, Planning and Members Activities.

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<http://www.ieice.org/eng/about/copyright.html>

4. Publication fee / Manuscript fee

No publication fee and no manuscript fee for all articles.

5. Schedule

Standard editing schedule is as follows. Please note that the schedule may vary due to public holidays or other circumstances. The exact deadlines are indicated in call for newsletters.

Publication date	1 st , Mar.	1 st , Jun.	1 st , Sept.	1 st , Dec.
Call for newsletters	1 st Mon., Dec.	1 st Mon., Mar.	1 st Mon., Jun.	1 st Mon., Sept.
Contribution entry	4 th Fri., Dec.	4 th Fri., Mar.	4 th Fri., Jun.	4 th Fri., Sept.
Submission of Manuscript/Copyright	3 rd Fri., Jan.	3 rd Fri., Apr.	3 rd Fri., Jul.	3 rd Fri., Oct.

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From Editor's Desk

● Special Section on IEICE International Sections

As a center for IEICE activities, the International Sections Representatives are appointed at each major regional area (city) outside Japan. IEICE is expecting the members of these sections to participate positively in our academic activities, and the sections representatives will act as liaisons between IEICE and the members in their respective sections through the following their activities.

- a Planning and implementing "lecture meeting or workshop" in each area about twice a year. (Japanese members living in representative section can also attend them.)
- b Publicizing activities of the IEICE on the occasions of such lecture meetings or workshops.
- c Attending an annual "International Section Representatives Meeting" in Japan.

Presently, IEICE has eleven International Sections. The detail is shown on the IEICE web site at:

<http://www.ieice.org/eng/area/2013report.html>

As a special section of this issue, introductions of some International Sections are published. We appreciate the contributions of International Sections Representatives submitted to the special section. We hope the special section helps readers to get to know their activities.

● IEICE Society Conference 2014

Complete English Sessions will be scheduled in IEICE Society Conference 2014 for the globalization of IEICE's academic activities. The conference is to be held in the University of Tokushima, Tokushima, for September 23-26, 2014. We would like to remind readers to consider submitting a paper to the conference. Please check out the detail of paper submission and the latest information on the IEICE web site at:

http://www.toyoag.co.jp/ieice/E_S_top/e_s_top.html

IEICE GLOBAL NEWSLETTER Editorial Staff

Editorial Staff of this issue

No special order is observed



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● Errata

We apologize to Dr. Christophe Michard, the author of the article "Rediscovering Judo in Daily Life" of the last issue (vol.38, no. 1), that we had not properly processed the latest manuscript that we had received. Online version, which is available at http://www.ieice.org/cs/pub/global_news.html has been replaced according to the latest manuscript so that readers can access the article as it should have appeared. We are very sorry for any inconvenience.

Intelligent Communications for Sustainable Development

Holiday Inn Pattaya, Thailand



APCC

Asia-Pacific Conference on Communications

2014

The 20th Asia-Pacific Conference on Communications

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Final Call for Paper

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The 20th Asia-Pacific Conference on Communications (APCC2014) will be held in Pattaya, Thailand. Since 1993, APCC has been the forum for researchers and engineers to present and discuss topics related to advanced information and communication technologies and services, while at the same time, opening the door to the world. Prospective authors are invited to submit original technical papers for presentation at the conference and publication in the conference proceedings. All papers of APCC2014 will be published in IEEE Xplore and indexed by EI.

Suggested topics

- Ad Hoc and sensor networks
- Networked applications and multicasting
- Antennas and propagations
- QoS and resource management
- 4G/5G Mobile network architecture
- RF/Microwave technologies
- Broadband wireless access
- Speech and video signal processing
- Emerging systems and technologies
- VPNs and traffic engineering
- Photonic nets and optical components
- High-speed switching and routing
- Satellite and space communications
- Information and communication theory
- Emerging technologies for home nets
- Media streaming
- Overlay network and P2P networking
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- Fiber to the curb
- DSP for communications
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- Network and information security
- Other selected areas in communication

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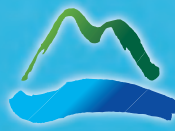
Special Session Proposal Deadline: **June 2, 2014**
Paper Submission Deadline: **July 1, 2014**
Acceptance Notification: **August 15, 2014**
Advanced Registration Deadline: **August 25, 2014**
Camera Ready Submission Deadline: **August 25, 2014**
Conference Dates: **October 1-3, 2014**





ISAP 2014

December 2-5, 2014
Kaohsiung, Taiwan



19th International Symposium on Antennas and Propagation

Call for Papers

The 19th International Symposium on Antennas and Propagation (ISAP 2014) will be held from December 2 to 5, 2014 in Kaohsiung, Taiwan. This symposium aims to provide an international platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and developments in Antennas, Propagation, EM Wave Theory, and AP-related fields. This symposium also provides opportunities for the delegates to exchange new ideas and application experiences, to establish business or research relations and to find global partners for future collaboration.



Conference Topics

Antennas

Printed and Patch Antennas, Antenna Arrays, Broadband and Multiband Antennas, Mobile Antennas, Base-station Antennas, Reconfigurable Antennas, Active Antennas, Smart and Beam Steering Antennas, MIMO Antennas, RFID Antennas, Millimeter-wave and Terahertz-wave Antennas, Metamaterial Antennas, Vehicle and Satellite Antennas, Antennas for Biomedical Applications, Antennas for Wireless Communications, Antenna Measurements, and other related topics

Propagation

Detecting and Sensing Techniques using Radio Wave, Mobile and Indoor Propagation, Mobile Channel Characterization and Modeling, Millimeter and Optical Wave Propagation, Terrestrial and Earth-space Propagation, Remote Sensing, DOA Estimation, SAR Polarimetry and Interferometry, Ionospheric Propagation, and other related topics

Electromagnetic Wave Theory

Computational Electromagnetics, Electromagnetic Theory and Modeling, Analysis for Multi-scale Problem, Inverse Problem, Random Media and Rough Surfaces, EBG and Metamaterials, New Electromagnetic Modeling, Scattering and Diffraction, and other related topics

AP-related Topics

Radio Wave Application to Environment Monitoring, Satellite and Mobile Communication Techniques to Transportation Vehicles, Space Communication System Techniques, Wireless Energy Transmission Techniques, Cognitive Wireless Networks Techniques, MIMO and Cooperative Communication Techniques, Radio Positioning and Broadcasting Techniques, EMC&EMI Techniques, Body-centric Wireless Communications, Medical Applications and Biological Effects, RFID and Applications, and other related topics

Timetable

July 04, 2014

◆ Paper Submissions Deadline

Sep. 01, 2014

◆ Notification of Paper Acceptance

Oct. 03, 2014

◆ Final Paper Submissions Deadline

Oct. 03, 2014

◆ Authors/Early Registration Deadline

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