

# ***IEICE Communications Society* GLOBAL NEWSLETTER Vol. 27**

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# Report on the 22<sup>nd</sup> Optical Communication Systems Symposium - Japanese technological innovation and industrial competitiveness



supported by optical communication networks -  
Technical Committee on Optical Communication Systems

## 1. Overview

The 22<sup>nd</sup> Optical Communication Systems (OCS) Symposium, sponsored by the IEICE Technical Committee on OCS, and in cooperation with the IEEE LEOS Japan Chapter and the IEICE Technical Committee on Photonic Networks, was held on Dec. 11–12, 2008 at the Toray Human Resources Development Center in Mishima city. The subject of the symposium was “Japanese technological innovation and industrial competitiveness supported by optical communication networks”. The symposium agenda is shown in Table 1. There were 168 participants. This symposium included an exhibition of the products of 17 companies in the lobby adjacent to the conference room.

Table 1. Symposium agenda.

Date	Program
12/11	1. Opening Remarks 2. Keynote Speech 3. OCS Award Ceremony 4. Workshop I with Panel Discussion 5. Reception 6. Rump Session
12/12	7. Invited Lectures 8. IEEE LEOS Award Lecture 9. Workshop II 10. Closing Remarks

## 2. First day – Dec. 11

At the opening session of the symposium, Prof. Yoshiaki Yamabayashi, the IEICE OCS committee chair gave the opening address. He reported the activities of the OCS technical committee in FY2008. As regards IEICE general/society meetings, in FY2008 we hosted seven normal technical meetings and two special sessions.

The technical sessions began with a keynote speech entitled “Technological innovation and international competitiveness related to optical communication systems –focusing on North American business–” given by Mr. Terumi Chikama of Fujitsu (Fig. 1). He introduced Fujitsu’s business related to optical communication systems in North America, including mention of obstacles to marketing, technological developments, and the keys to business success. He also discussed ways of dealing with future global competitiveness based on his experiences as a pioneer and a manager.



Fig. 1 Keynote speech by Mr. T. Chikama.

The OCS award ceremony was held after the keynote speech (Fig. 2). The OCS technical committee presented two awards: the “IEICE Communication Society OCS Best Paper Award” and the “IEICE Communication Society OCS Young Researchers Award” for excellent presentations at OCS technical committee meetings throughout the year. One paper was selected for the Best Paper Award.

- “Proposal and experimental verification of optical phase control method for DQPSK demodulator” by Mr. Takeshi Hoshida<sup>1</sup>, Mr. Hisao Nakashima<sup>2</sup>, Mr. Zhenning Tao<sup>3</sup>, Mr. Akihiko Isomura<sup>2</sup>, and Mr. Jens C. Rasmussen<sup>1</sup>, of <sup>1</sup>Fujitsu Ltd., <sup>2</sup>Fujitsu Laboratories Ltd., <sup>3</sup>Fujitsu Research & Development Center.

Three researchers received the Young Researchers Award.

- Mr. Yoshihiro Kanda (Oki Electric Industry Co., Ltd.): “Adaptive PMD compensation technique for ultra high-speed signal employing novel tunable DGD generator and PSO algorithm”,
- Mr. Kensuke Ikeda (Central Research Institute of Electric Power Industry): “Millimeter-wave radio on fiber system using wavelength tunable light sources to switch base stations”,



Fig. 2 OCS award-winners: from the left, Mr. Y. Kanda, Mr. H. Nakashima, Mr. K. Ikeda and Mr. Y. Mori.

Presenter: Prof. Y. Yamabayashi (center).

- Mr. Yojiro Mori (Univ. of Tokyo): “Transmission of 10-Gsymbol/s 16-QAM signals using digital coherent optical receiver”.

The OCS chair presented a testimonial, a glass trophy, and a book token to each award recipient.

After the award ceremony, Workshop I – “Industrial competitiveness in terms of intellectual property” was chaired by Mr. Kazuo Hagimoto of NTT. The workshop included four invited talks and a panel discussion (Fig. 3). The invited talks described “Trends in patent applications in the optical communication systems field”, “Changes in the intellectual property strategies of companies”, “R&D and intellectual property strategies for stimulating innovation”, and “What is happened on the spot of international standardization?”.



Fig. 3 Panel discussion of Workshop 1: from the left, Mr. T. Otani, Mr. K. Emura, Mr. H. Kuranaga, Mr. T. Mizuochi, Mr. T. Chikama, and Mr. K. Hagimoto.

The rump session began after the reception. The title was “Optical or Electrical? ”. Mr. Katsuhiko Shimizu of Mitsubishi Electric and Mr. Toshihiro Ito of NTT were invited as panelists representing the optical and electrical parties, respectively. The session began with their speeches and continued in a debate format. The able chairing of Prof. Masanori Hanawa of Yamanashi Univ. produced a friendly atmosphere for this session, which was filled with fruitful discussion.

### 3. Second day – Dec. 12

The second day began with a technical session consisting of four invited lectures designed to enhance the participants’ knowledge of the future of optical communications (Fig. 4). The first invited lecture was “Technologies for ultrahigh-definition video system ‘Super Hi-Vision’ ” given by Mr. Kimiyuki Oyamada of NHK. He described the current state and development of the ultrahigh-definition video system and a Super Hi-Vision signal transmission experiment. The second lecture was “Green IT project and expectations for optical communication technologies” given by Mr. Takeo Hoshino of Ministry of Economy, Trade, and Industry (METI). He introduced important programs related to the “Green IT initiative” promoted by METI. The third lecture was on “Trends in adaptive equalization and modulation/demodulation schemes on wireless communications” given by Mr. Hiroshi Kubo of Mitsubishi Electric. He provided a review of frequency and time domain adaptive equalization techniques and their harmonization with a soft cancellation scheme. The last lecture was sponsored by the IEEE/LEOS Japan chapter for 2008 IEEE William

Streifer Award memorial. The lecture was given by Prof. Fumio Koyama of Tokyo Institute of Technology, and was entitled “Recent progress on VCSEL photonics”. He introduced recent advances in VCSEL photonics, including wavelength engineering and athermal operation based on MEMS technologies. This lecture also explored the potential for new VCSEL functions such as high-speed optical phase control, slow light devices, and plasmonic VCSELS.



Fig. 4 Presenters at the invited lecture session: from the left, Mr. K. Oyamada, Mr. T. Hoshino, Mr. H. Kubo, and Prof. F. Koyama.

The final session was Workshop II, which was entitled “Bossa Nova (new wave) of optical communication”, chaired by Mr. Takeshi Kamijoh of Oki Electric Industry. This session specifically addressed recent leading optical communication technologies. Five invited speakers discussed (1) next generation optical fibers, (2) tunable wavelength light sources exploiting future WDM optical networks, (3) ultra multi-level coherent optical transmission aiming at a spectral efficiency of 10 bit/s/Hz, (4) future prospects for optical access networks, and (5) management of network resources in anticipation of moving beyond NGN (Fig. 5).



Fig. 5 Presenters of Workshop II: from the left, Top: Prof. M. Koshiba, Mr. I. Mito, and Prof. M. Nakazawa. Bottom: Mr. H. Kimura, and Mr. H. Tanaka.

### 4. Conclusion

We believe that all the participants were satisfied with the presentations and discussions on Japanese technological innovation and industrial competitiveness related to optical communication systems at this symposium. Finally, the OCS technical committee would like to thank all the speakers and participants for their efforts.

## Report on the 6<sup>th</sup> QoS Workshop

Koichi GYODA (Shibaura Institute of Technology)  
Masahiro YAMAMOTO (Oki Electric Industry Co., Ltd.)  
Secretary of the 6th QoS Workshop



### 1. Workshop and venue

The 6th QoS Workshop was held on December 1-2, 2008 at Osaka Gakuin University, Japan (Fig.1). The workshop was organized by IEICE Technical Committee on Communication Quality (CQ), which covers a broad range of research topics on communication quality. This workshop focused on the hot topics on QoS evaluation and management technologies for the services and networks in the broadband era.

### 2. Technical and poster sessions

54 people participated in this workshop (Fig.2). The workshop consisted of a technical session (5 talks), poster session (14 posters) and demonstration session (4 demos). In the technical session, we had 5 invited speakers presenting “Quality of Experience –Next level of Quality for Digital Media Services” by Prof. Klara Nahrstedt (Univ. of Illinois), “On Robustness of Biologically Inspired Network Control Driven by System-Inherent Noise” by Dr. Kenji Leibnitz (Osaka University), “TCP in extremely diverse environments – Transport protocols today and future–” by Prof. Masato Tsuru (Kyusyu Institute of Technology), “Quality of telecommunication service, in PSTN and in NGN” by Mr. Kimihide Matsumoto (NTT) and “Home network and QoS” by Mr. Masanobu Arai (NEC). On the first day, Prof. Nahrstedt discuss the relation among Quality of Experience, QoS, Mean Opinion Score, and other measures and factors that influence user's overall experience with digital media. Dr. Leibnitz discussed some cases of noise-driven robustness found in biological systems and provided examples of self-adaptive, distributed network control methods inspired by such biological processes. Prof. Tsuru discussed about the conformity of TCP to the various communication environments and introduced some related researches. On the second day, Mr. Matsumoto overviewed the QoS design and management in PSTN and introduced the QoS topics in NGN. He also discussed network reliability management in PSTN and in NGN. Finally, Mr. Arai presented problems about QoE of home networks such as how to commit the end-to-end QoE to the users and how to share the complicating role of operators and users.

In the poster session, all the attendees had active discussions in a friendly atmosphere (Fig. 2). The poster session covers a broad range of communication quality, overlay networks, and network QoS control and measurement. In the poster session, two best

posters and two excellent posters were selected (Fig. 3). The best poster awards were sent to Ms. Satoko Kashiwagi with her poster “QoE Evaluation for Waiting Time of Page Loading under Time Pressure” and Mr. Masafumi Hashimoto with his poster “Fairness Improvement of Hybrid TCP Congestion Control Mechanisms in Wireless LAN Environment”.

### 3. Conclusion

QoS and QoE related issues have been attracting more attentions in the research areas of new generation networks and future communications. The issues are growing into interdisciplinary areas of network and human activities. The next QoS workshop will be held in autumn, 2009.



Fig.1 Workshop Room



Fig.2 Poster Session



Fig.3 Award winners (Mr. Hidekuma, Dr. Teng, Ms. Kashiwagi and Mr. Hashimoto, from left)

# Report on the 4th WSANE 2008 in Qingdao

Yoshio Kosuge

Chair of IEICE SANE, Nagasaki University

## 1. Introduction

The Workshop for Space, Aeronautical and Navigational Electronics 2008 (WSANE2008) was held in Qingdao, China, from November 24th to 26th, 2008. It was the 4th international workshop organized by the Technical Committee on Space, Aeronautical and Navigational Electronics (SANE) of the IEICE Communications Society. The WSANE2008 was co-sponsored by Ocean University of China (OUC, host), the IEEE AESS JC, some Japanese institutes (JAXA, NICT, ENRI), etc. Also the IEEE GRSS JC and the AIAA JFSC cooperated with the WSANE2008. The number of participants is about 60 from 4 countries (Japan, China, Korea, and Australia). Fig. 1 shows a group photo.

## 2. Sessions

The workshop started from an opening address by me and a welcome remark by Prof. Ge Chen in OUC who was a co-chairperson of this workshop (Fig. 2). System-oriented broad scope is a feature of the WSANE: It covers satellite and space-station systems, remote sensing and observation technologies, radar, navigation, and communication systems. From such various fields, 27 presentations were given, including the following invited talks:

- *Climate Related Natural Modes in Sea Level and Sea Surface Temperature Variability Derived from Satellite Data*, Ge Chen, OUC.
- *Analytical Models of Refraction in the Lower Atmosphere*, B. D. Nener, Univ. Western Australia.
- *An Overview of Global Navigation Satellite Systems*, Hao Zhang, OUC.
- *Estimation of Aircraft Trajectory and Space Attitude Using Quaternion 3D Geometry*, M. Higashiguchi, JATCA.
- *Japanese Venus Climate Orbiter - the first Japanese Venus Mission -*, M. Nakamura, JAXA.
- *Space Environment Measurement outside the International Space Station/Japanese Experimental Module "Kibo"(JEM)*, K. Koga, JAXA.
- *Vehicle Maintain Service Process Guide and Control System Base on Zigbee*, T. Zhang, Chinese Academy of Science

In every session, international researchers with different backgrounds were able to share knowledge and understanding each other after fruitful discussion.

## 3. Venue, banquet, and tour

The Venue was Ba Da Guan Hotel, which is regarded as the official hotel of Qingdao. A lot of VIPs, such as Xiaoping Deng, have stayed at the hotel (Fig.3: Entrance of the hotel). In the welcome banquet on the first day (Fig. 4) and the farewell party on the last day, all participants fully enjoyed Qingdao's seafood and beer. Also in the morning of the last day, a tour for a beautiful campus of OUC and a famous Taoism temple was organized.

## 4. Conclusions

We really appreciate devoted cooperation of the local organizing committee including several women students of OUC. The next WSANE2009, which is the 5th memorial workshop,

will be held in Shanghai, China. Since a tentative schedule is considered as November 1st to 4th, 2009, shall we enjoy Shanghai crabs at their best season?



Fig.1 Group photo.



Fig.2 Welcome remark by Prof. Ge Chen.



Fig.3 Entrance of Ba Da Guan Hotel.



Fig.4 Welcome banquet.

# Report on US/Japan Future Network Workshop: Collaboration in Network Science and Engineering

Yoshiaki Kiriha

NICT, Strategic Headquarters for New Generation Network R&D

## 1. Introduction

1<sup>st</sup> US / Japan Future Network Workshop was held on October 31-November 1, 2008 in Palo Alto, California supported by NSF and NICT. The focus of this workshop was on discussing research issues and experimental infrastructure related to future and new generation networks. This was chaired by Prof. Tomonori Aoyama (Keio University / NICT) and Prof. Peter Freeman (Georgia Tech), and was program arranged by Dr. Hiroaki Harai (NICT) and Prof. Deep Medhi (UMKC).

There were 60 only invited participants who are leading US and Japanese network researchers from both academy and industry. The workshop was organized around short state-of-the-art presentations from leading researchers and four breakout sessions focused on major research challenges in future global networking; Network Architecture Design, Socio-economic & Environment-aware Network Services, Experimental Infrastructure for Future Network Design, and Network Fundamentals.

<http://www.csee.umkc.edu/us-japan-fnw/index.html> is a workshop homepage, presentation materials and a workshop report is available through this URL.

## 2. Presentations

In the presentation session, each 6 R&D activities were introduced from Japan and US. From US, GENI by Chip Elliot, Stanford Clean Slate Program by Nick McKeown, X-Bone+10 by Joe Touch were impressive presentations. From Japan, the following presentations were made.

- Tomonori Aoyama (Keio University), “Overview of New Generation Network R&D in Japan”
- Shinji Shimojo (NICT), “Advanced Test-bed for New Generation Network”
- Hiroaki Harai (NICT), “AKARI Architecture Design Project toward New Generation Network”
- Masayuki Murata (Osaka University), “Biologically Inspired Approaches for NWGN”
- Aki Nakao (University of Tokyo), “Network Virtualization Research Lab”
- Toru Hasegawa (KDDI), “Future Network Research Activities at KDDI R&D Laboratories”
- Hisaya Hadama (NTT), “Paradigm Shift for New Generation Carrier Networks”

All talks were extremely interesting, informative, and included new and forward-looking ideas. Participants have recognized the necessity to develop more and stronger collaborations in the area of future networking.

## 3. Breakout Sessions

Each breakout group was asked to produce answers to the following questions; “What are common research challenges?”, “What are the impediments to address these research challenges?”, “How to overcome the impediments?”, and “Where can we potentially collaborate?”. Each breakout group has produced a list of research challenges, impediments, and collaboration possibilities.

The followings are the part of research issues which were derived through breakout discussions on future / new generation network challenges.

- Network for the masses, Organization of Network Components, Science of Network Architecture, ...
- E2E Energy Profiling, Power-aware Network Architecture, Socio-economical Management, ...
- Scalable Virtualization with high-performance, Federation, Validation through Real Services, ...
- New methodologies and theory of Networking, Metrics of “Goodness”, Self-Organizing, etc.

All participants have agreed that a global research infrastructure is strongly required in order to overcome the impediments and to accelerate the collaborative research activities.

## 4. Summary

This workshop was very successful, and was able to share the research issues and challenges both US and Japan research communities. Those will continuously be discussed in the technical committee on New Generation Network (NwGN), IEICE Communications Society, as well as related workshops and conferences.



Fig. 1 Workshop Participants

# Japan-Korea Joint Conference on Satellite Communications (JC-SAT 2008) Report

Yoshihisa Takayama

Secretary of Technical Committee on Satellite Telecommunications

Technical Committee on Satellite Telecommunications of IEICE held a two-day conference, 2008 Joint Conference on Satellite Communications (JC-SAT 2008), with Korea Society of Space Technology (KOSST) on November 6 and 7, 2008 at Hotel Riviera Haeudae, Busan, Korea. A photograph around the entrance of the conference room is shown in Fig. 1. Totally about 120 researchers and engineers from Japan, Korea, China and Russia participated in the conference.

On November 6, 2008, the conference started with the opening address given by the heads of Korean delegation, Dr. Jae Mounng Kim, President of KOSST. Accordingly, the congratulatory address was made by the head of Japanese delegation, Dr. Hideyuki Shinonaga, KDDI R&D Labs. Their pictures are put in Fig. 2. Two keynote speeches were delivered by the leading researchers in Korea and Japan, respectively. Following that, two invited talks by Russian researcher and Chinese researcher and 36 state-of-the-art technical papers were presented. The conference was successfully closed with the promise of JC-SAT 2009 in Japan.

The Joint Conference on Satellite Communications has provided an opportunity to exchange technical information and the latest research activities between Japan and Korea researchers annually since 2000. Thus, JC-SAT 2008 was the ninth conference of the series.

The first keynote address entitled “Expanding Satellite Network Horizons” was presented by Dr. Kwon Young Mo of Korea Telecom (KT). He gave the overview of KT and presented the current status of Koreasat services. The second keynote speech entitled “Satellite communication business in Japan” was presented by Dr. Yutaka Nagai and Dr. Tasuku Nagoya of SKY Perfect JSAT Corporation. They introduced their corporation and showed the ground facilities and satellite services with planned new services.

One of the invited papers was presented by a Russian researcher with the title “Antennas with contoured beams: limitation capabilities and examples” and the other was shown by a Chinese researcher with the title “A modified efficient method to determine the diagonal loading factor using direct search of Gaussian distribution”

In the consecutive eight sessions, thirty-six technical papers were presented. The sessions were Satellite System I, Satellite Network, Satellite System II, System

Engineering I, Satellite Navigation System, Transmission Technology I, Transmission Technology II, and System Engineering II. All manuscripts of the technical reports were compiled and issued as the proceedings of JC-SAT 2008.

The closing remarks are given by Dr. Byung Seub Lee of Korea Aerospace University and Dr. Hiromitsu Wakana of NICT. They summarized the successful conference and encouraged the audiences to submit their activities to a forthcoming special section of the IEICE Transactions on Communications on “Satellite Communication Technologies in Conjunction with Main Topics of JC-SAT2008” to be published in November 2009.

Both Japan and Korea organizing committee members agreed to organize the next conference, JC-SAT 2009, in Nara around the end of October next year. It was also re-confirmed that we would pay effort to promote JC-SAT 2009 to Asian area to increase the number of submission papers and participants from other Asian countries. Details of JC-SAT 2009 will be announced on the home page of the satellite telecommunication technical group of IEICE. (<http://www.ieice.org/cs/sat/jp>)



Fig. 1 Entrance of conference room of JC-SAT 2008.



Fig. 2 Dr. J. M. Kim, President of KOSST (Upper) and Dr. H. Shinonaga, KDDI R&D Labs. (Lower) in their speeches.



# Report on 11<sup>th</sup> Asia-Pacific Network Operations and Management Symposium (APNOMS2008 )

Takeshi Masuda\*, Hiroshi Uno\*\*

\*Secretary of the conference, NTT

\*\*Vice Co-Chair of the conference, NTT

## 1. Overview of APNOMS 2008

The 11th Asia-Pacific Network Operations and Management Symposium was held from October 22nd to 24th, 2008 in Beijing, China. APNOMS 2008 was organized by the IEICE ICM Committee and The Korean Institute of Communication Science, Korea Network Operations and Management Committee (KICS KNOM). Supporting organizations were IEEE CNOM, IEEE APB, TMF, IFIP WG6.6, BUPT, CIC and CCSA TC7. The past activities of APNOMS can be found on-line [1]. APNOMS 2008 entitled "Challenges for Next Generation Network Operations and Service Management" consisted of four keynote speeches, one DEP session, two special sessions, four tutorial sessions, ten technical sessions, two short paper/poster sessions and two innovation sessions. The exhibition program was held from the afternoon of the first day to the end of the third day. 170 people from 14 countries participated.

## 2. Sessions and Activities

Four executives delivered keynote speeches. Photo 1 is a snapshot of one of the keynote speeches. Prof. Murata from Osaka University, Japan gave a speech on "Manageability Towards New-Generation Networks: Japanese Approach". In the DEP session, five panelists discussed various topics with the audience in relation to the theme of APNOMS 2008, for example, open cooperation between service providers and telecom operators and the paradigm shift from QoS to QoE.

A total of 198 papers were submitted to APNOMS 2008 and of these 43 were presented in ten technical sessions. In the short paper/poster session, 34 papers were delivered as poster-style presentations, see photo 2. There were two innovation sessions that covered nine topics. In the exhibition program, two companies from Japan and Korea demonstrated prototypes of their network simulator and NGOSS application. As a social event, a banquet was held, see photo 3, that included a "Bian Lian: Face-changing Performance" as an example of Chinese culture.

Lastly, the APNOMS 2008 organizing committee selected the top three papers with the highest overall (paper + presentation) score from the technical session for "Best Paper Awards".

## 3. Conclusion

APNOMS 2008 was a very successful symposium. APNOMS 2009 will be held in Seoul, Korea, in

September 2009. Information will soon be available on the web.

## 4. References

[1] <http://www.apnoms.org/>, Home page of APNOMS.



Photo 1 Keynote Speech



Photo 2 short paper/poster session



Photo 3 Banquet



Welcome to the IEICE Overseas Membership Page URL:<http://www.ieice.org/>

● **Membership for Overseas Candidates:** Overseas Members may opt to join **one IEICE Society of their choice** and may request to **receive the IEICE Transactions of online version** of that Society. Furthermore, Overseas Members may request to receive the IEICE Journals and Transactions (published in paper) at an additional cost. Similar services are available to **Overseas Student Members**. Voting privileges in the IEICE election do not apply to Overseas Members. Note that the Overseas Membership applies only to candidates who reside outside of Japan and who have citizenship in countries other than Japan.

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● **IEICE Societies and Publications (<http://www.ieice.org/eng/books/trans.html>)**

The IEICE Transactions provide a forum where members can publicize results of their studies. There are four different series of Transactions, corresponding to the different Societies, and each series is published monthly.

★ **Communications (Communications Society)**

Society	Transactions	Editorial Subject Indexes
B (Communications)	B (Japanese Edition) EB (English)	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

★ **Fundamentals of Electronics, Communications and Computer Sciences (Engineering Sciences Society)**

★ **Electronics (Electronics Society)**

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**Basic Membership Charge (UNIT : Japanese YEN)**

Service coverage for overseas members	Entrance charge	Online Version		Paper version (optional)		
		Registration of 1society and its transaction (Online version)	Registration of additional society (Includes its transactions of Online version)	Journal (Written in Japanese, in paper version)	Transactions (Written in Japan or in English in paper version)	
					One	Tow or more
Member (overseas)	1,400	7,000	3,500(/1Society.)	6,000	4,000	10,000
Member (overseas) with OMDP*	1,000	5,000	3,000(/1Society.)	5,000		
Student member (overseas)	-	2,000	2,000 (/1Society.)	6,000		
Student member (overseas) with OMDP*	-	1,000	1,500 (/1Society.)	5,000		

**NOTE:**

- You need to choose one Society, and you can subscribe Transactions online of your registered society.**  
*Example: If you want to subscribe to Transaction of EA, please check Society Registration as "A", and your membership fee amounts to 7,000 yen / 5,000 yen.*
- If you want to register other Societies and Transaction of web version, please check "Additional Society registration".**  
*Example: If you want to subscribe to Transaction of EA and EB, please check Society Registration as "A", Additional Society registration (optional) as "B". Your membership fee amounts to 7,000+3,500 yen / 5,000+3,000 yen.*
- If you want to subscribe to one Transaction of paper version, please check "Additional Transaction subscription (published in paper)".**  
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- If you want to change membership from Member (In Japan) to Overseas Member, you don't need to pay an Entrance charge.**

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Surface mail charge is included in the membership charge. Optional rapid mailing service is available by air mail or surface air lifted (SAL) mail. The additional charge per year periodical depends on the mailing address, as shown in the right table.

Areas	Air Mail	SAL mail
Asia; Guam; Midway islands	5,600yen	3,200yen
Oceania; Near & Middle East; North & Central America; Europe	7,800yen	4,400yen
Africa; South America	11,000yen	5,600yen

Please contact the IEICE Membership Activities Section: E-mail:[member@ieice.org](mailto:member@ieice.org) FAX: +81 3 3433 6659

# IEICE Overseas Membership Application Form

URL <http://www.ieice.org/eng/member/OM-appli.html> E-mail [member@ieice.org](mailto:member@ieice.org)

◆ Please type or print in English. The deadline for submitting application form is the 1<sup>st</sup> day of every month.

## Personal Information

Full name: \_\_\_\_\_ Nationality: \_\_\_\_\_  Male  
 Female  
First name Middle name Last name

Prof.  Dr.  Mr.  Ms. Place of birth: \_\_\_\_\_ Date of birth: \_\_\_\_\_  
Day Month Year

## Mailing Address

Home  Office

\_\_\_\_\_  
Name of Company/School/College Department/Section

\_\_\_\_\_  
Street City State/Province

\_\_\_\_\_  
Postal code Country

\_\_\_\_\_  
TEL FAX E-mail

## Academic Background

The highest academic degree:  Ph.D.  Masters  Bachelors  Others: \_\_\_\_\_

\_\_\_\_\_  
University/college/school of the highest academic degree Month & year of graduation

(For Student Member) Academic degree which will be conferred on you. \_\_\_\_\_ Month & year when the degree will be conferred on you. \_\_\_\_\_

## Application Information

**Membership:** I want to apply for the following membership (check one item!)

Member (Overseas)  Student Member (Overseas)

◆ If you want to apply for OMDP, please check;  OMDP (Overseas Membership Development Program)

**Society registration (Membership fee includes one Society of Transaction of Online version.):**

A: Engineering Sciences  B: Communications  C: Electronics  D: Information & Systems

**Additional Society (optional):**  A: Engineering Sciences  B: Communications  C: Electronics  D: Information & Systems

**Additional Transactions of paper version (optional):**

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**Journal subscription (optional)**  (Japanese)

## Remittance

Remittance is available only in **Japanese yen** by a **credit card**.

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 Additional Society (optional)..... \_\_\_\_\_  SAL mail..... \_\_\_\_\_  
 Additional Transactions (optional)..... \_\_\_\_\_ **Total remittance**..... \_\_\_\_\_

Credit Card:  MasterCard  VISA  American Express Card number: \_\_\_\_\_ Expiry date(Y/M) \_\_\_\_\_ / \_\_\_\_\_

Credit Card Holder: \_\_\_\_\_ Signature: \_\_\_\_\_

## Endorsement

Endorsements by two IEICE Regular Members for Regular/Affiliate Member application and by one Member for Student Member application is required. If it is difficult to find endorsers, please contact the IEICE Membership Activities Section by sending this sheet, and we will help you. I recommend this applicant for IEICE membership.

\_\_\_\_\_  
Endorser's name Membership number Endorser's signature Date

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## From Editor's Desk

### ● IEICE General Conference in Ehime

The IEICE general conference is approaching. The next conference will be held in Ehime Prefecture from March 17 to March 20 in 2009.

Usually, late March (to early April) is a cherry blossom season. When I was a student, I visited a mountain that was a famous cherry blossom viewing point. The cherry trees were at their best and the mountains were covered with cherry blossom in full bloom. I'll never forget the really magnificent scenery that I enjoyed with my friends.

I hope cherry blossoms reach its peak during the conference.

IEICE Global News Letter Editorial Staff

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