IEICE Communications Society GLOBAL NEWSLETTER *Vol. 7*
Contents

IEEE ComSoc Global Sister Societies Summit

Yasushi Yamao

Society Vice President, International Relations

Summery

The IEEE ComSoc Global Sister Societies Summit was held on December 1, 2003 at the San Francisco Marriott Hotel, just prior to GLOBECOM 2003. Representatives from ComSoc's twelve sister societies gathered and discussed their activities and the relationships among the societies. Society President Yoshinori Sakai and I attended the Summit. The Sister Society Agreement with ComSoc was also renewed.

Sister Society Summit

The delegates from the sister societies came from Brazil, Croatia, Germany, Italy, Japan, Korea, Russia, Slovenia, Vietnam, the Czech Republic, Slovakia, and Hungary. The Czech and Slovak Radioengineering Society and the Hungarian Telecommunications Society are newly joined sister societies. The other IEEE ComSoc sister societies are listed in Table 1.

Also in attendance were IEEE ComSoc President Celia Desmond, President Elect Curtis Siller, two Vice Presidents, and other liaison Directors. They expressed their hopes toward collaboration.

Society President Yoshinori Sakai presented a report on the current status of the IEICE Communications Society (IEICE-CS) membership statistics, publications, society activities, and recent collaboration with ComSoc.

Fig. 1 Agreement renewal signing ceremony.

Sister Society Agreement Renewal

The IEICE-CS and IEEE ComSoc renewed the Sister Society Agreement on the same day of the Summit. The Society Presidents, Yoshinori Sakai and Celia Desmond, signed the renewed agreement as shown in Fig. 1. The agreement addresses:

- Dual membership for each Society member
- Cooperation regarding membership promotion
- Technical co-sponsorship in conferences

The agreement is valid for 2003-2005.

Table. 1 IEEE ComSoc Sister Societies (Before Summit)

BRAZIL	**Sociedade Brasileira de Telecomunicações**	**SBrT**
CHINA	**China Institute of Communications**	**CIC**
CHINA	**The Chinese Institute of Electronics**	**CIE**
FRANCE	**Société de l'Electricité, de l'Electronique, et des Technologies de l'Information et de la Communication**	**SEE**
GERMANY	**Verband Der Elektrotechnik/Informations-Technische Gesellschaft**	**VDE/ITG**
INDIA	**The Institute of Electronics and Telecommunications Engineers**	**IETE**
ISRAEL	**Association of Engineers and Architects- Communications Group**	**AEAI**
ITALY	**Associazione Elettrotecnica ed Elettronica Italiana**	**AEI**
JAPAN	**The Institute of Electronics, Information and Communication Engineers**	**IEICE-CS**
KOREA	**The Korean Institute of Communication Sciences**	**KICS**
LATVIA	**Latvijas Informacijas Tehnologiju un Telekomunikaciju Asociacija**	**LITTA**
RUSSIA	**The Russian Popov Society for Radio Engineering, Electronics, and Communications**	**RPS**
TAIWAN	**Chinese Institute of Electrical Engineering**	**CIEE**
VIETNAM	**The Radio & Electronics Association of Vietnam**	**REV**

Society Relations of IEEE Communications Society

Nim K. Cheung
IEEE ComSoc Vice President – Society Relations
Naohisa Ohta
IEEE ComSoc Director – Sister Societies

Dear Friends and Colleagues of IEICE,

We would like to thank Dr. Naoaki Yamanaka for inviting us to contribute this article to IEICE's Global Newsletter. We appreciate the opportunity to provide you with an update of ComSoc's Society Relations activities and an outline of our plan in 2004-05.

IEICE is one of the most important sister societies to ComSoc because of your large membership and high quality publications. One of us still remember the early days in our research career (the late '70s) when we spent long hours in the Bell Labs library looking for the latest reference in fiber optics technologies that were only reported in IEICE publications. Some of the references were published in English, while other references were in Japanese for which we need to seek the help of our distinguished supervisor, the late Dr. Kinichiro Ogawa, for explanation. We are pleased to witness that IEICE has greatly expanded over the years, both in membership and globalization.

Like IEICE, ComSoc has also expanded in both areas. An important mission of ComSoc is to foster the presentation and exchange of information among a global community. In the area of Society Relations, our major responsibility is to promote relationships with IEEE societies and councils, as well as other worldwide professional societies, thereby fostering a strong international society presence. During the next two years we are fortunate to have Dr. Naohisa Ohta and Dr. Joe LoCicero - two of ComSoc's distinguished leaders - serve as Director of Sister Societies and Director of Related Societies, respectively. Dr. Ohta directs the Sister Societies Board, which is principally concerned with national societies whose scope is similar to ours. Dr. LoCicero heads the Related Societies Board, which covers relations with societies whose scope is complementary to that of our own.

In the area of Sister Societies, ComSoc has achieved phenomenal progress since 1994, when the first international Sister Society agreement was established with Associazione Elettrotecnica ed

Elettronica Italiana (AEI) of Italy. Our roster of Sister Societies increased rapidly over the past decade. As of this January we have a total of 18 Sisters Societies – and the number is expected to increase further over the next two years. A major milestone was the Global Sister Society Summit Conference held at GLOBECOM 2003 in San Francisco. Top leaders of 12 of our Sisters Societies attended the conference, the highest number to-date of Sisters Societies represented in such meetings. [add photo here]

During Ms Celia Desmond's 2002-03 presidency, ComSoc signed five new Sister Society agreements. Three of them were signed in April 2002: Communications and Information Society, Croatia (CCIS), Latvian Information Technology and Telecommunications Association (LITTA), and Electrotechnical Association of Slovenia (EZS). The other two were signed at GLOBECOM 2003: Scientific Association for Infocommunications of Hungry (HTE) and Czech and Slovak Society for Radioengineering (SR)..

At the Global Sister Society Summit Conference at GLOBECOM 2003, Prof. Yoshinori Sakai and Ms. Celia Desmond, presidents of IEICE and ComSoc, respectively, renewed the Sister Society agreement between our two societies. [Include photo of Dr. Sakai and Celia Desmond in the signing ceremony]. Extensions to existing agreements have also been signed with: Brazil (Sociedade Brasileira de Telecomuniçacões, SBT), China (China Institute of Communications, CIC, and The Chinese Institute of Electronics, CIE), Germany (Verband der Elektrotechnik Elektronik Informationstechnik, VDE), Italy (AEI), Korea (Korean Institute of Communications Sciences), Russia (The Russian Popov Society for Radio Engineering, Electronics & Communications, Popov), and Vietnam (The Radio & Electronics Association of Vietnam, REV). Through cooperative agreements with national societies, ComSoc members can subscribe at substantially discounted rates to many outstanding journals and attend key conference events sponsored or published by our Sisters and Related Societies, and vice versa.

Apart from the formal, contractual agreements, ComSoc members maintain close ties with our Sister Societies through joint publications and conferences. The *Journal on Communications and Networks*, a joint

KICS (Korea)/ComSoc publication, has become a truly global journal, with over 50% of the papers contributed by authors outside Korea. We held joint workshops and conferences with Latvia, Lithuania, and Croatia. The joint conference SoftCOM2003 with Croatia and Italy took place on a ship cruising up and down the Adriatic Sea.

To take advantage of the rapid increase in wireless and Internet access subscribers in many Asia and Latin America countries, we anticipate strengthening our collaboration with Sisters Societies in these two regions, in addition to the excellent on-going initiatives in other regions, started by our distinguished predecessors, Alex Gelman (former VP-SR) and Algirdas Pakstas (former Director of Sister Societies).

Over the next two years we expect to further enhance our interactions with Sister Societies by using ComSoc *eNews* as an information dissemination vehicle. We believe ComSoc *eNews* is an effective low-cost, two-way communication channel to inform our Sister Society members worldwide on the new publication and conference activities of our Society. It will also enable our members to learn about new and exciting activities undertaken by the Sister Societies. In January 2004, we commenced experimental distribution of ComSoc *eNews* to a large group of our Sister Societies members.

With respect to Related Societies, ComSoc maintains close partnerships with a large number of IEEE societies and societies outside of IEEE, such as the Association for Computing Machinery (ACM), the Internet Society (ISOC), and Optical Society of America (OSA). Since communications technologies are becoming more and more interdisciplinary, ComSoc needs to partner with many other professional groups outside its traditional areas. In 2004-05 we will continue to collaborate with our ongoing partners in *IEEE Journal of Lightwave Technologies*, *Transactions on Multimedia*, *Transactions on Networking*, and *Transactions on Wireless Communications*. Since the Society derives a significant portion of its revenues from the OFC Conference, we will increase the emphasis on our partnership with IEEE Lasers and Electrooptics Society (LEOS) and OSA in the management of this conference. We will also work with these two societies to identify new markets in optical communications as the economy is recovering, particularly in the service-provider community.

Thanks to the efforts of past Society Relations and other ComSoc leadership, we have successfully launched the Consumer Communications and Networking Conference (CCNC) in Las Vegas in January 2004. Dr. Yoshiaki Kushiki of Matsushita Electric was the keynote speaker of the first CCNC and Dr. Naohisa Ohta will serve as the General Chair for the second CCNC in January 2005. We also initiated dialogs with standards developments organizations such as the Wireless World Research Forum (WWRF) and Optical Internetworking Forum (OIF). The new Related Societies Board will continue to work with other ComSoc departments to develop activities in these areas.

With the anticipated global economic recovery and continued innovations by service providers and equipment suppliers, we expect a very active and exciting time for Society Relations during these next two years. We urge all members of our Sister Societies and ComSoc to participate in our ongoing activities. Please feel free to contact us at n.cheung@ieee.org or n.ohta@ieee.org if you have suggestions or would like to participate in Society Relations activities.

(Include a couple of photos of Global Sister Society Summit Conference at GLOBECOM 2003)

Sister Society renewal between KICS and IEICE(CS)

Kohei Shiomoto
shiomoto.kohei@lab.ntt.co.jp
Society Secretary of International Relations

1.Sister Society Agreement

The Communications Society (CS) of the Institute of Electronics, Information and Communication Engineers (IEICE) renewed the Sister Society agreement with the Korean Institute of Communication Sciences (KICS). Various benefits are given to members of CS of IEICE and KICS under the Sister Society agreement. Benefit includes paper submission, meeting participation, transactions/journal subscription between CS of IEICE and KICS. CS of IEICE and KICS further seek and give privileges to and cooperate with each other for mutual prosperity. The current agreement will be valid through the end of 2005.

2.Summit Meeting

Summit Meeting was held on October 2, 2003 at Hotel Okura, Tokyo, Japan.

1. Meeting date :
   Oct. 2, 2003 (Thursday), 10:00-12:20

2. Delegates :

(1) KICS:
Prof. Chulhee Kang (President)
Prof. Jinwoo Park (Director)

(2) CS of IEICE
Prof. Yoshinori Sakai (President)
Dr. Yasushi Yamao (Vice President, International Relations)
Dr. Kohei Shiomoto (Secretary, International Relations)

3. Agenda:

10:00-10:10 Opening
10:10-10:30 Status report by KICS
10:30-10:50 Status report by IEICE-CS
10:50-11:00 Sign of sister society

3.KICS Status Report

Founded	in 1974
Area:	Communications technology Law and policy Management and standardization Sociological analyses
Member	13560 individuals 178 institutional
Technical group	23 Technical Activity Group (TAG)
Publication	Domestic journal (monthly) International journal (quarterly) Magazine (monthly)
Conference	Two conferences (summer and fall) 17 workshops/seminars 3 short lecture courses 9 regional branch workshops 6 Co-sponsored workshops/conferences (in 2003).

4.Future collaboration

4.1 Joint workshop

The First Joint Workshop on Mobile Multimedia Communications (JWMMC) was hosted by MoMuC (Technical Group of IEICS-CS) and KICS. JWMMC consists of seven sessions and Panel discussion. We further seek the possibility of joint meeting of Technical Group of CS of IEICE and Technical Area Group of KICS.

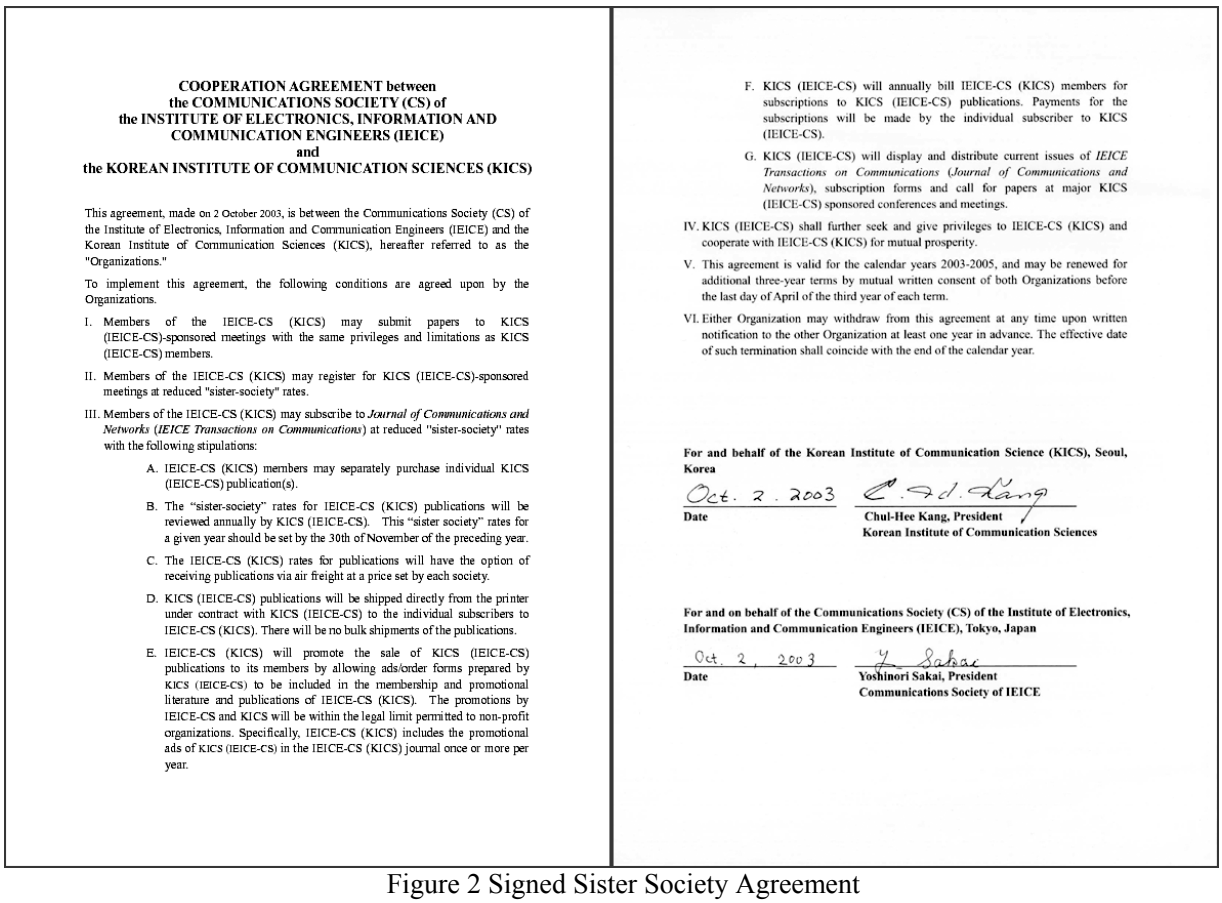
4.2Transactions/journal

KICS has been publishing a quarterly international journal "*Journal of Communications and Networks (JCN)*" (*http://www.jcn.or.kr*) since 1999. Approximately 400 pages are published a year. We further seek the possibility of joint-special issue between *JCN* and *IEICE Transactions on Communications*.

(a) Prof. Chulhee Kang and Prof. Yoshinori Sakai (from left to right)

(b) Prof. Jinwoo Park , Dr. Yasushi Yamao, and Dr. Kohei Shiomoto (from left to right)
Prof. Chulhee Kang and Prof. Yoshinori Sakai (from left to right)

Figure 1 Ceremony of Sister Society Renewal Sign



COOPERATION AGREEMENT between
the COMMUNICATIONS SOCIETY (CS) of
the INSTITUTE OF ELECTRONICS, INFORMATION AND COMMUNICATION ENGINEERS (IEICE)
and
the KOREAN INSTITUTE OF COMMUNICATION SCIENCES (KICS)

This agreement, made on 2 October 2003, is between the Communications Society (CS) of the Institute of Electronics, Information and Communication Engineers (IEICE) and the Korean Institute of Communication Sciences (KICS), hereafter referred to as the "Organizations."

To implement this agreement, the following conditions are agreed upon by the Organizations.

I. Members of the IEICE-CS (KICS) may submit papers to KICS (IEICE-CS)-sponsored meetings with the same privileges and limitations as KICS (IEICE-CS) members.

II. Members of the IEICE-CS (KICS) may register for KICS (IEICE-CS)-sponsored meetings at reduced "sister-society" rates.

III. Members of the IEICE-CS (KICS) may subscribe to *Journal of Communications and Networks* (*IEICE Transactions on Communications*) at reduced "sister-society" rates with the following stipulations:

A. IEICE-CS (KICS) members may separately purchase individual KICS (IEICE-CS) publication(s).

B. The "sister-society" rates for IEICE-CS (KICS) publications will be reviewed annually by KICS (IEICE-CS). This "sister society" rates for a given year should be set by the 30th of November of the preceding year.

C. The IEICE-CS (KICS) rates for publications will have the option of receiving publications via air freight at a price set by each society.

D. KICS (IEICE-CS) publications will be shipped directly from the printer under contract with KICS (IEICE-CS) to the individual subscribers to IEICE-CS (KICS). There will be no bulk shipments of the publications.

E. IEICE-CS (KICS) will promote the sale of KICS (IEICE-CS) publications to its members by allowing ads/order forms prepared by KICS (IEICE-CS) to be included in the membership and promotional literature and publications of IEICE-CS (KICS). The promotions by IEICE-CS and KICS will be within the legal limit permitted to non-profit organizations. Specifically, IEICE-CS (KICS) includes the promotional ads of KICS (IEICE-CS) in the IEICE-CS (KICS) journal once or more per year.

F. KICS (IEICE-CS) will annually bill IEICE-CS (KICS) members for subscriptions to KICS (IEICE-CS) publications. Payments for the subscriptions will be made by the individual subscriber to KICS (IEICE-CS).

G. KICS (IEICE-CS) will display and distribute current issues of *IEICE Transactions on Communications* (*Journal of Communications and Networks*), subscription forms and call for papers at major KICS (IEICE-CS) sponsored conferences and meetings.

IV. KICS (IEICE-CS) shall further seek and give privileges to IEICE-CS (KICS) and cooperate with IEICE-CS (KICS) for mutual prosperity.

V. This agreement is valid for the calendar years 2003-2005, and may be renewed for additional three-year terms by mutual written consent of both Organizations before the last day of April of the third year of each term.

VI. Either Organization may withdraw from this agreement at any time upon written notification to the other Organization at least one year in advance. The effective date of such termination shall coincide with the end of the calendar year.

For and behalf of the Korean Institute of Communication Science (KICS), Seoul, Korea

Oct. 2. 2003 — C. H. Kang
Date — **Chul-Hee Kang, President**
Korean Institute of Communication Sciences

For and on behalf of the Communications Society (CS) of the Institute of Electronics, Information and Communication Engineers (IEICE), Tokyo, Japan

Oct. 2, 2003 — Y. Sakai
Date — **Yoshinori Sakai, President**
Communications Society of IEICE

Figure 2 Signed Sister Society Agreement

IEICE Communications Society launches new e-mail information service

Katsunori YAMAOKA/Tokyo Institute of Technology
Director, Newsletter Publications, IEICE-CS
Webmaster, IEICE-CS

1.Introduction

IEICE Communications Society (IEICE-CS) had operated e-mail information service over a period of a few years. This service had been operated as voluntary-based Mailing-List.

Toward more IEICE-CS membership service enhancement, IEICE-CS has planed and prepared to launch new e-mail information service.

Now IEICE-CS launches new e-mail information service. In this letter, the details of this new service are introduced.

2.NewIEICE-CS e-mail information service

New IEICE-CS e-mail information service has been already launched since this autumn, 2003. This new e-mail information service launching was approved by the first IEICE-CS Board of Directors on May, 2003.

This new IEICE-CS e-mail information service is provided by Mailing-List system. This service is free, and only served to IEICE-CS members, and all of IEICE-CS members are welcome. Unfortunately the other IEICE societies members are out of this service.

If you would like to join this Mailing-List, you have only to request to receive information e-mail from IEICE Headquarter Office, by changing your personal information. Please contact to member@ieice.org. Of course, please don't forget to join IEICE-CS!

3.IEICE-CS e-mail information service policy

This new e-mail information service is formally operated by IEICE-CS. Therefore, its service policy is also strictly defined by IEICE-CS Board of Directors.

First, on all of information e-mail, English is required. The other languages, for example Japanese, are also welcome. However, it is mandatory to include English, because about 10% of IEICE-CS members are not Japanese.

Second, contents which are delivered by IEICE-CS email information service are limited as follows.

- Information from IEICE Headquarter Office
- Information from IEICE-CS Headquarter Office
- Transactions Call for papers in relation to IEICE-CS
- IEICE-CS or IEICE-CS Technical Committees sponsored or co-sponsored International Conference and International Workshop Information
- IEICE-CS Technical Committees sponsored Domestic Workshop Information
- The other information which IEICE-CS President approved specially

Finally, you cannot send any e-mail to this IEICE-CS e-mail information Mailing-List. All of e-mail is sent from IEICE-CS Headquarter Office. If you request to send any information to this ML, please send e-mail to cs-webmaster@mail.ieice.org (IEICE-CS Webmaster). IEICE-CS Webmaster checks this e-mail and request to IEICE-CS Headquarter Office.

4.Another Information

IEICE-CS operated voluntary-based information Mailng-List service "news.com" (http://www.ieice.org/cs/jpn/ml/) will be closed on April 2004. Thank you for your joining to news.com. All registered e-mail addresses will be deleted by IEICE-CS Webmaster.

IEICE-CS Webmaster will not transfer any e-mail address from news.com to new IEICE-CS e-mail information Mailing-List. If you would like to join new IEICE-CS e-mail information service, please you join by yourself.

5.Conclusion

It is introduced that IEICE-CS has launched new e-mail information service.

Why not join the IEICE-CS e-mail information service?

Report on Subaru Telescope Technical Tour in 2003 TCWCT

Masaharu Takahashi*, Nobuyasu Takemura**, Toru Fukasawa**
and Shigeru Makino**
*Tokyo Univ. of Agr. & Tech., **Mitsubishi Electric Corp.

1.Introduction

The 2003 IEEE Topical Conference on Wireless Communication Technology (TCWCT) was held at Sheraton Waikiki Hotel (Fig.1) in Hawaii. The conference was sponsored by the Antennas and Propagation Society of the Institute of Electrical and Electronics Engineers (IEEE/AP-S) and co-sponsored by the IEEE Microwave Theory and Techniques Society (IEEE/MTT-S), the technical/research committee on electromagnetic Theory (IEICE/EMT) and the Antennas and Propagation technical group of the Institute of Electronics, Information and Communication Engineers (IEICE/AP-S).

In addition, it was scheduled the second National Science Foundation Wireless Communications Grantees Workshop in parallel with the TCWCT to help enrich the intellectual environment and enhance benefits from the conference.

The Subaru Telescope (Fig.2) technical tour for the TCWCT participants was planned by the IEICE/AP-S.

Fig. 1 Symposium Site: Sheraton Waikiki Hotel.

Fig. 2 Subaru Telescope (left one) on Mt. Mauna Kea.

Fig. 3 Members of Subaru Telescope technical tour.

Fig. 4 Onizuka center for international astronomy.

2.Subaru technical tour

Big island

The island of Hawaii (Big Island) is the biggest size in the Hawaiian islands. Mt. Mauna Kea is higher than Mt. Fuji in Japan, and is the highest mountain in each island of the Pacific Ocean. Subaru Telescope is an optical-infrared telescope at the 4,200 m summit of Mt. Mauna Kea on the Big Island.

Way to the summit of Mauna Kea

The Subaru Telescope technical tour was held in the good day in October. The tour participants were 29 all members (Fig.3). We gathered in the Hilo airport and went to the Mt. Mauna Kea. Although it was a long drive for about 2 hours to Subaru Telescope, the drivers guided about natural, history etc. in Hawaii and Mauna Kea. We didn't get tired at all to the scenery that we could not see in Japan.

We aimed at the summit after the rest in the Onizuka visitor center for international astronomy (Fig.4) of the mountainside. Because this Onizuka visitor center is at the 2,800m, it is necessity to prevent mountain sickness that we have food, water and some rest to get used to thin air here. As the air was thin at the summit of Mauna Kea, only a little bit walk causes short of breath. There are several astronomical observatories, including Subaru telescope, at the summit.

Inside of Subaru Telescope

In Subaru Telescope, staff of the National Astronomical Observatory of Japan (NAOJ) guided and explained about Subaru Telescope. Because they measure at night, the room temperature of the inside is set up to about 5 degrees of night.

Subaru Telescope is the largest monolithic optical-infrared single-mirror telescope in the world; its primary mirror (Fig.7) is 20 centimeters thickness and 8.2 meters (about 27 feet) effective diameter. Inside of the building is wide and there are the attachment for movement of primary mirror (Fig.8), the facility for washing the mirror, and control devices etc.

Since Subaru Telescope was First Light (the first time a new telescope is used) in January 1999, it has produced fantastic results. Subaru Telescope is so powerful that it can see a ping-pong ball on the top of Mt. Fuji from Tokyo, 100 kilometers away. It can even see previously unknown galaxy clusters at 5 billion light years from earth. *How long distance it is!*

Fig. 5 Lecture out of Subaru Telescope.

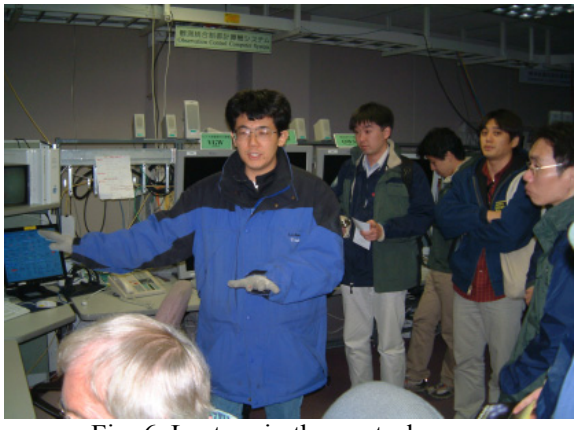


Fig. 6 Lecture in the control room.

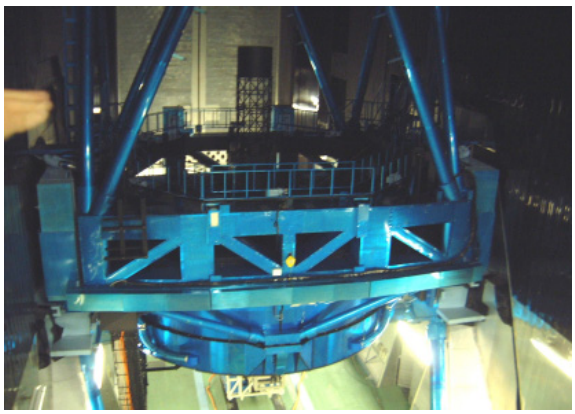


Fig. 7 Primary mirror of Subaru Telescope.

Fig. 8 Attachment for movement of primary mirror.

The Subaru Telescope technical tour was held in daytime this time, so I want to go there at night and look at starlit sky next time.

Lastly, in this tour, we were able to visit the inside of Subaru Telescope where we can not see generally. Thanks for the people who did preparation to realize the Subaru Telescope technical tour.

From now on, an attractive technical tour will be held by the IEICE/AP-S. Why don't you try to participate in the next technical tour!

While seeing the sunset of Hawaii (Fig.9), and then good-bye!

Mahalo!

Fig. 9 Sunset of Hawaii.

Japan-Korea Joint Conference on Satellite Communication (JC-SAT 2003) Report

Takeshi Mizuike
Chair of the Satellite Telecommunications
Technical Group

Satellite Telecommunications Technical group of IEICE organized a two-day conference, Joint Conference on Satellite Communications (JC-SAT 2003), with KOSST (Korea Society of Space Technology) on October 23-24, 2003 at National Museum of Emerging Science and Innovation, Tokyo JAPAN. More than 100 participants were actively involved in 28 state-of-the-art presentations including 2 keynote speeches delivered by the leading researchers from Japan and Korea. The conference was successfully closed with the promise of JC-SAT2004 in Korea.

The Joint Conference on Satellite Communications has provided an opportunity to exchange technical information between Japan and Korea researchers annually since 2000. The fourth conference, JC-SAT 2003, was held in Tokyo.

The conference was commenced with the inaugural address from the author and the congratulatory address from Dr. Seon Jong Chung, President of KOSST on October 23, 2003, followed by two keynote speeches from both Japan and Korea sides.

The keynote speech entitled “Research and Development of Communication Satellites in Japan” delivered by Dr. Naokazu Hamamoto (CRL) extensively reviewed technological history on Satellite Communications in Japan. The keynote speech also covered the status on the on-going projects such as WINDS, ETS-8 and Quasi-Zenith satellites system. The other keynote speech was delivered by Prof. Emeritus Soon Dal Choi (KAIST). The keynote speech “Digital divide and satellite communications” persuasively disclosed the gap between technological development and commercial or social success especially focusing on the relaxation of digital divide. The gap can be mitigated by the strategic governmental support according to the speech.

Twenty-six papers were presented in serial 8 sessions; System Engineering I, II, II, Service and Application, Transmission & Access Method, Resource Allocation, Component & Antenna and Advanced Technology.

In the System Engineering session, mobile satellite communication system attracts significant interests. Korea presented a Ku/Ka band mobile satellite system while Japan proposed a primary MSS band system using extensive frequency reuse.

Dr.Hamamoto（Upper） and Prof.Choi (Lower) in their keynote speech

Broadband satellite communication system was another important issue. The justification of using Ka band against the heavy rain attenuation was repeatedly discussed in several occasions during the conference. In the Service and Application session, BSS(sound) system from GSO slated to launch its service next year gathered the participants’ interests. Since a part of the system will be used to provide service in Korea, the relationship between two countries is expectedly enhanced in the field. Resource allocation was another actively discussed topic. Studies such as efficient channel assignments in LEO satellite system and simultaneous optimization of frequency bandwidth and satellite transmission power were presented. Innovative component technologies such as low XPD ancillary repeater for BSS system, Ku band satellite tracking phased array antenna, MEMS switch for

40GHz application were reported in Component & Antenna session.

JC-SAT2003 Podium

All the manuscripts were compiled in a volume of Technical Report of IEICE. "Special Issue on Recent Fundamental Technologies for Broadband Satellite Communications" in IEICE Transactions including a number of contributions in JC-SAT2003 is under compilation by a special editorial committee for the publication in August 2004.

Both Japan and Korea organizing committee member agreed to organize the next conference JC-SAT 2004 in Korea. Details on JC-SAT2004 will be announced on the home page of the satellite telecommunication technical group of IEICE (http://www.ieice.org/cs/sat/jp). Inquiries by email are also welcomed (sat@ieice.org).

Annual Letter of CS Technical Committee ~Technical Meetings, 16th Communication Systems Workshop (CSWS), etc.~

Iwao Sasase, Chair

Iwao Sasase*, Keio University, Yoichi Maeda**, NTT,
Hiroshi Tomonaga***, Fujitsu Labs., Youichi Fukada***, NTT
*Chair, **Vice Chair, ***Secretary

1.Introduction

We briefly report the annual activities of the Technical Committee on Communication Systems (CS). Our principal works are planning and holding the technical meetings and workshop, so that they are mainly described in this article. Refer to the Reference [1] on activities of the past years and history of the CS committee.

2.CS technical meetings

The CS technical meetings are held six or seven times every year. The meeting is usually held for two days in single-session form. (Last year, a three-days meeting and a parallel-session were once held because of too many paper submissions.)

The CS technical meetings this year are already scheduled as shown in Table 1. The deadline for paper submission is about two months before every meeting (See Chapter 5 for details). We welcome your paper submission and look forward to seeing you at our technical meeting.

Table 1: Technical meeting schedule

Date	Place	Themes	Co-organizer
Mar. 15-16	Hiroshima Univ.	Network processor et al.	CAS, DSP
May 27-28	Kochi Univ. of Tech.	Photonic networks et al.	OCS, PN
July 8-9	Nagaoka Univ. of Tech.	Network emulation et al.	
Sept. 2-3	Tohoku Univ.	Active networks et al.	IN, NS
Oct. or Nov. *	Not decided	Broadband access et al.	
Dec.	Nagoya Univ., et al.	Image coding et al.	AVM, IE, BCT
Jan. 13-14	Univ. of the Ryukyus	Broadband wireless access et al.	RCS

IN: Information Networks, NS: Network Systems, AVM(IPSJ): Audio Visual and Multimedia information processing, IE: Image Engineering, BCT(ITE): Broadcasting and Communication Technologies, CAS: Circuit and Systems, DSP: Digital Signal Processing
* will be co-held with CSWS.

3.The 16th CSWS and CS technical meeting

The 16th Communication Systems Workshop (CSWS) and the CS technical meeting were jointly held at Dai-ichi Takimotokan Inn in Noboribetsu-shi, Hokkaido, from 12th to 14th of November, 2003. Prof. Yoshikazu Miyanaga served as the executive committee chair.

The theme of the workshop was "Verification of Broadband Services and its Future." The CSWS 2002 held last year was the 15th anniversary substantial workshop on the future direction of our information society from various aspects including technology, service, business and society. Following the fruitful and enthusiastic discussions of the last workshop, the 16th CSWS provided sessions for further discussions on new services and technologies under the keyword "Broadband Services."

In "Service session" four speakers were invited; Mrs. Monique Morrow (Cisco Systems), Mr. Motoyuki Nakamura (Mitsubishi Electric & MEUS), Dr. Junichi Kishigami (NTT), and Mr. Yoshimi Fukuhara (NTT-X). They discussed the network construction and network services to support broadband services.

In "Technical session" three speakers were invited; Dr. Masayuki Sugawara (NHK), Prof. Yasuhiro Takaki (TUAT), and Mr. Kenji Mochizuki. They demonstrated their cutting-edge imaging technologies that will play a key role in future broadband services.

"Special lecture" was presented by Prof. Koichi Mukasa (Hokkaido Univ.) on nano technology in relation to the future information and telecommunication applications.

Another highlight this year was the new trial of "Fellow session," a special talk from Fellow member about the point of view and source of ideas for breakthrough-how he/she got the idea at that time. Dr. Botaro Hirosaki (NEC) presented his precious experience as an OFDM-system developer and a company manager.

At the CS technical meeting session, 25 presentations of various topics were given; access network, wireless system, NPLS, optical system, etc.

We had been apprehensive whether our program was successful since there were some new trials such as a long-day simultaneous holding "Fellow session", etc. The questionnaire replies put us ease because most

participants were satisfied; 92% agreed with the simultaneous holding, 83% supported the workshop's theme. Especially, we were encouraged by the opinions that praised "Special lecture" and "Fellow session."

We would like to appreciate to all of the workshop lecturers, technical meeting speakers, and audience. The 16th CSWS and CS technical meeting engaged 54 participants (Figure 1).

Dai-ichi Takimotokan Inn, the conference venue, is the most historic in Noboribetsu hot-spring aria, having the beautiful scenery of the Hell valley from the giant bathhouse containing 30 bath tubs and measuring 5,000 square meters. The customary banquet of Japanese-style promoted mutual amity among participants (Figure 2).

4.Events in IEICE conferences

Last year, we planned and worked out four events in the society/general conferences of IEICE (i.e. two panel discussions, a symposium, and a tutorial session). A detail of the event is reported in Reference [2].

5.Web page

We announce the CS committee's information on technical meeting schedule, workshop schedule, paper titles submitted to the CS technical meetings, committee member profiles, etc. on our web page. Since 2003, web page registration for the CS technical meetings and CSWS has been attained (Figure 3). The URL is following:

http://www.ieice.org/cs/cs/

6.Reference

[1]Iwao Sasase, et al., "Technical Committee on Communication Systems," IEICE Global News Letter, Vol. 3, 2003.

[2]Hiroshi Tomonaga, "A Report of the Panel Discussion on 'Home-networking, Sensor, and Network Appliance'," IEICE Global News Letter, Vol. 4, 2003.

Fig. 1 Participants to the 16th CSWS and CS technical meeting

Fig. 2 Japanese-style banquet

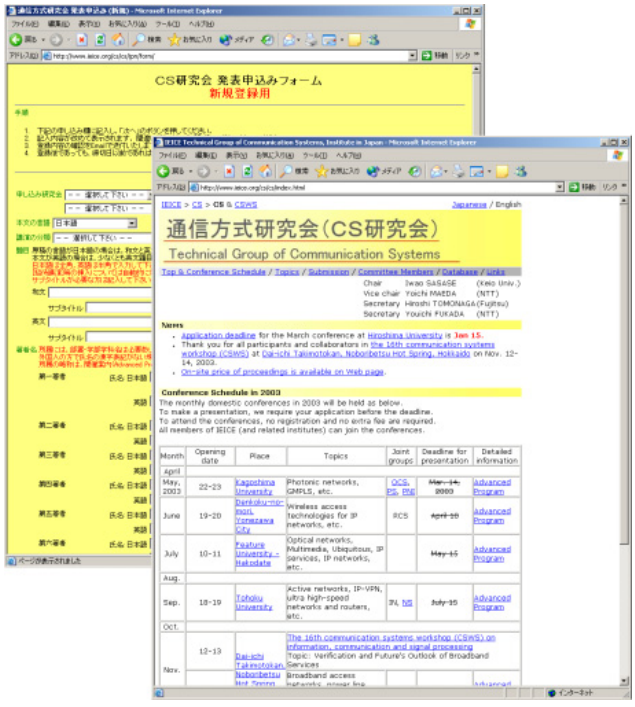


Fig.3 CS web pages; meeting schedule information and paper registration form

Report on the Photonic Network (PN) Technical Group

Ken-ichi Sato /NTT
Photonic Network Technical Group

Launch of the Photonic Network Technical Group

In May 2003, a new technical group, the Photonic Network (PN) Technical Group, was launched in the IEICE Communications Society. The group was established as the successor to the Photonic Switching (PS) Technical Group and the Photonic Network-based Internet (PNI) Technical Group. In addition to taking over and further developing the activities of both the PS and PNI Technical Groups and pioneering new areas of research, the PS Technical Group also seeks to promote expanded research and development in the field of photonic networks. Dr. Ken-ichi Sato of NTT Network Innovation Laboratories has been named the founding chairperson of the group, and has started acting on the group's objectives and fields of research, as described below.

Objectives of the PN Technical Group

The importance of photonic networks as a foundation for the creation of a high-speed, large-capacity Internet capable of supporting future broadband network services is already widely acknowledged. Technological efforts are starting to produce solid results through the use of photonic technologies in the construction of ultra-high-speed photonic networks. Photonic technologies have also enabled research into methods that dramatically improve the performance of nodes that incorporate photonic devices.

On the other hand, as the Internet evolves, the functions required of photonic networks are becoming more diverse. Breakthroughs at the device level have become indispensable in achieving higher speeds, greater capacities, stable and highly reliable operation, and the flexibility needed to meet a variety of service functions. In addition to improvements in the various element technologies that incorporate photonic components and photonic node systems, technologies that freely control bandwidths and channels using control plane technology and provide various types of services are required. Furthermore, if new services that take advantage of features like wide-area networks and distributed processing are to be provided, it is important for photonic networks to interact with the Internet, as well as with application software, to support the functions that will make those services possible.

It was under these circumstances that the PS Technical Group and the PNI Technical Group continuously and actively expanded their respective research activities, both in Japan and elsewhere. The PS Technical Group sought to promote active discussion of photonic switching technologies from the standpoint of both systems and devices, in anticipation of future high-speed, broadband photonic networks. The PNI Technical Group focused its discussions on technologies for building IP networks by organically combining Internet technology with photonic network technology.

To remain global leaders in photonic network technology in the present environment, where dramatic progress is being made in the speed and capacity of networks, a stronger foundation for photonic network research must be built by combining and reorganizing closely interrelated yet hitherto separate research activities. To that end, we have established a new committee dedicated to photonic network research, so that researchers from various fields related to photonic components, photonic switching systems, photonic Internet operations, and photonic control can discuss issues more intimately and creatively. The aim is to develop photonic networks from a greater variety of viewpoints, ranging from research into their construction to the search for an ideal future photonic network and its fundamental potentials.

Research in these fields is becoming more active worldwide, as evidenced, for example, by the establishment of new international academic societies. The PN Technical Group is seeking to expand the field through a variety of educational activities and international academic conferences in Japan, as well as through group conventions, research conferences, and scholarly journals. We are conscious that these activities go beyond discussions of technology, to considerations related to services, advantages for users, and the impact of various technologies on society. We are also promoting activities with an eye to becoming the leading organization for standardization activities in Japan.

Responsibilities of the PN Technical Group

The responsibilities of the PN Technical Group cover all fields related to the Internet, photonic networks (systems), and related device technologies.

The related technological fields are as follows:

- New services/applications (grid computing, digital cinema, etc.) via high-speed, broadband Internet
- High-speed network services/applications (distributed IX, OVPN, variable bandwidth, SVC, etc.)
- High-speed network test beds (reciprocal connections, corroborative testing, and operation via high-speed networks)
- New protocols that aim to go beyond IP
- OAM on high-speed IP networks
- Traffic engineering technology in photonic networks
- Photonic IP network architecture (core and edge, backbone and access)
- Sharing of functions between layers and between networks on photonic IP networks
- Photonic access LAN (service multiplexing, user-driven, OCDM)
- Control plane and management plane technology (GMPLS protocol, RWA problem, routing protocol, signaling protocol, management protocol, etc.)
- Photonic NNI/UNI interface, photonic user access interface
- Photonic burst switching
- Photonic packet switching
- Photonic node configuration technology (core node/router, service node/router, integrated IP & photonic node/router)
- Photonic node processing technology (routing, switching, buffering, etc.)
- Device technologies for photonic processing
- Photonic virtual bus technology (technology for blending photonic switching with photonic multiplexing technologies such as OWDM, OTDM, OCDM, etc.)
- Fiber/waveguide route switching technology
- Free space switching technology
- Photonic interconnection technology
- Photonic memory
- Wavelength conversion technology
- Photonic amplification technology
- Photonic and electrical functional devices for photonic networks
- Device integration technology for photonic networks
- Device mounting technology (photonic wiring, photonic circuit mounting) for photonic networks
- Device evaluation technology for photonic networks
- Materials and new phenomena suited to devices for photonic networks

First Meeting of the PN Technical Group

The first meeting of the PN Technical Group was held at the Chitose Office Arcadia Plaza in Chitose, Hokkaido (http://www.city.chitose.hokkaido.jp/oa/index.html) on September 2 and 3, 2003.

The topics for discussion at the meeting were the central issues in the fields for which the PN Technical Group is responsible: photonic routers, photonic switching, and other general issues. Guest lectures were given by four persons with deep connections to the PN Technical Group: Prof. Yuki Aoyama (Tokyo University), Prof. Masayuki Murata (Osaka University), Prof. Yoshiaki Nakano (Tokyo University), and the group's chairman, Dr. Ken-ichi Sato (NTT). There were also fourteen submitted presentations, which made for a substantial program. It is also worth noting that attendance at the meeting was high despite the distant location in Hokkaido, reflecting the high expectations placed on the technical group.

Photonic Network (PN) Workshop 2003 Report

The IEICE PN Technical Group, in cooperation with the Photonic Internet Forum (PIF), organized a two-day workshop and conference on October 27 and 28, 2003, at Tateyama International Hotel in Fukui Prefecture. Approximately forty attendees participated actively in twenty presentations and discussions, and three leading researchers delivered keynote speeches. All participants rated the conference a success.

In May 2003, the PN Technical Group was established as the successor to the PS Technical Group and PNI Technical Group. In addition to taking over and further developing the activities of both the PS and PNI Technical Groups and pioneering new areas of research, the PN Technical Group also seeks to promote expanded research and development in the field of photonic networks. At the workshop, a panel discussion format was used to discuss the direction of future activities of the PN Technical Group, as well as issues relating to photonic components, photonic switching systems, photonic Internet operations, and photonic control.

In a keynote speech, Prof. Ken-ichi Yukimatsu spoke on "The Roles of Research and Academic Conferences on Photonic Switching." He stated that a common aspect in all of the group objectives was giving birth to “the next generation,” and added that the technical groups provided good opportunities for this. In particular, he expected the PN Technical Group to provide opportunities for researchers from a wide range of fields to discuss issues on an equal footing, and to promote discussion and research into network services from the user's point of view, while also allowing non-specialists to participate easily in its activities.

Prof. Ken-ichi Kitayama of Osaka University, in a speech entitled "On the Occasion of the New Photonic Network Technical Group," stated his expectations that the new technical group would strengthen the cohesiveness of the photonics community in Japan, and

that in addition to academic conferences, it would focus particularly on overseas activities.

The final speech, "A Progress Report on the Activities of the Photonic Internet Forum (PIF)," was delivered by Dr. Yuichi Matsushima of CRL. He provided an overview of PIF and a report on its activities.

In the afternoon session, fifteen short presentations were given voluntarily by experts in a variety of fields, including devices, systems, and GMPLS, and resulted in useful discussions.

Prof. Yukimatsu （Upper）, Prof. Kitayama （Middle）and Dr. Matsushima （Lower） in their keynote speeches

The PN Technical Group met again the following day, October 28, and six technical papers were presented. Please refer to the IEICE Technical Report, Vol. 103, No. 396 (ISSN 0913-5685), for details.

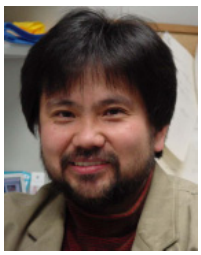
Lecture Session at Photonic Network Workshop

The next PN Technical Group workshop is scheduled for April 12 and 13, 2004, at the Tokyo Institute of Technology.

Research activity of Asia Pacific

--Number of presentation at IEEE Globecom from 1995 to 2003--

Takaya Yamazato
Center for Information Media Studies, Nagoya University



1.Introduction

Research in Asia Pacific region is very active, especially in the field of communication engineering. This article introduces such trend by observing the presentation at IEEE Global Communication Conference (Globecom).

2.IEEE Membership in Asia Pacific region [1]

Non-U.S. members, continued to follow growth trend, constituted 132,163 or 36.1 percent. In Asia Pacific region, members are 55,041 or 15 percent of total organization (see Table 1). The Technical interest profile listing top 5 is somewhat different in Asia Pacific comparing to the whole organization. As seen in Table 2, Asia Pacific members incline to IT related technical interest.

Table 1 IEEE membership by region [1]

	Number	% of Total
United States	233,972	63.90%
Canada	15,491	4.20%
Europe, Middle East, Africa	48,157	13.20%
Latin America	13,474	3.70%
Asia Pacific	55,041	15.00%

Table 2 Technical interest profile (top 5) [1]

Whole		Asia Pacific	
Computer	52,909	Computer	6,278
Communications	25,869	Communications	3,258
Power Engineering	19,578	Signal Processing	1,494
Engineering Management	13,275	Power Engineering	1,292
Signal Processing	10,432	Electron Devices	963

3.The number of presentation at IEEE Globecom [2]

The Globecom is the international conference organized by IEEE Communication Society (ComSoc) and known as a top international conference on communication engineering field. Figure 1 and 2 depict the number and ratio of presentation at the Globecom from 1995 to 2003, respectively. The percentage of presentation by Asia Pacific researchers are nearly 30 percent, that is bigger than that by European researchers. Among Asia Pacific region, Taiwan, Japan, Korea, Hong Kong, Australia, hit good score in terms of the number of presentations, as shown in Fig. 3

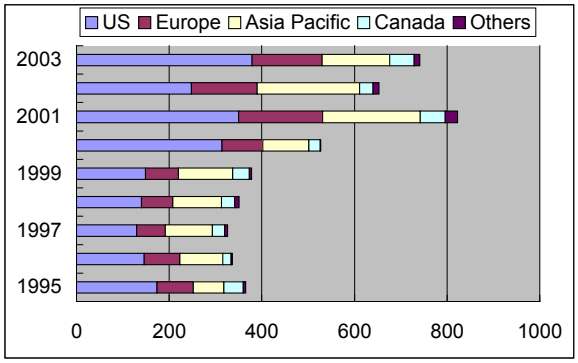


Fig. 1 The number of presentation at IEEE Globecom according to the regions.

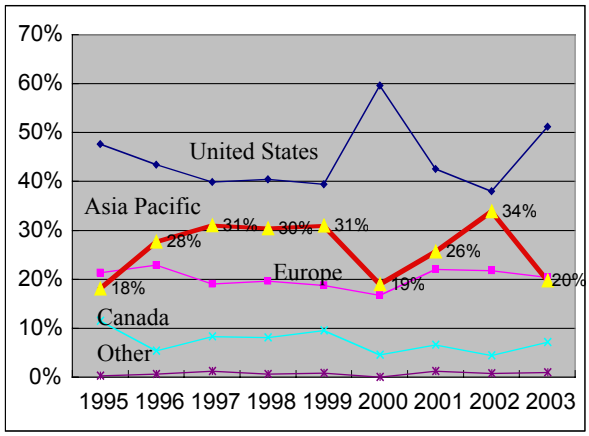


Fig. 2 The percentages of presentations at IEEE Globecom according to the regions.

4.Conclusions

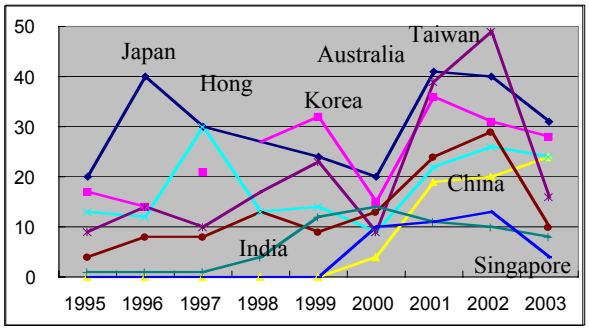


Fig. 3 The Number of Presentations at Globecom According to the Asia Pacific Countries

Considering 15 percent of membership, 30 percent of presentations confirm strong research activity in Asia Pacific region.

5.Reference

[1]IEEEAnnual Report Archive,
[2]AP Newsletter,http://www.comsoc.org/~apb/.

IEICE Overseas Membership Page

The Institute of Electronics, Information and Communication Engineers

Membership for Overseas Candidates: **You can join one of the IEICE Societies and subscribe to IEICE Transaction (in English) of the registered Society as** IEICE Overseas Regular Member, Overseas Student member, or Overseas Affiliate Member **without voting right at the Institute's election. Still more, you can receive Journal and Japanese Transactions by paying an additional charge.** OMDP **(Overseas Membership development program) is provided for candidates from** countries/areas in Asia, Africa, Central America, and South America. **This program is designed so that IEICE can contribute to and support the progress of science and technology throughout the world. Scientists and engineers in these countries/areas are encouraged to apply to the program.**

◆Please be noticed that Overseas Membership applies only to candidates who reside outside of Japan and who have non-Japanese citizenship.

IEICE Societies and Publications:

Societies	Transactions	Topical areas covered
A. Engineering Sciences	EA:Trans. on Electronics	Engineering Acoustics, Noise and Vibration, Speech and Hearing, Ultrasonics, Digital Signal Processing, Analog Signal Processing, Systems and Control, Nonlinear Problems, Circuit Theory, VLSI Design Technology and CAD, Numerical Analysis and Optimization, Algorithms and Data Structures, Graphs and Networks, Reliability, Maintainability and Safety Analysis, Cryptography and Information Security, Information Theory, Coding Theory, Communication Theory and Signals, Spread Spectrum Technologies and Applications, Mobile Information Network and Personal Communications, Intelligent Transport System, Image, Vision, Computer Graphics, Language, Thought, Knowledge and Intelligence, Human Communications, Neural Networks and Bioengineering, Multimedia Environment Technology, Communication Environment and Ethics, Concurrent Systems, Measurement Technology, General Fundamentals and Boundaries
B. Communications	EB:Trans. on Commun.	Fundamental Theories, Communication Devices / Circuits, Transmission Systems and Transmission Equipment, Optical Fiber, Fiber-Optic Transmission, Wireless Communication Technology, Terrestrial Radio Communications, Satellite and Space Communications, Optical Wireless Communications, Switching, Wireless Communication Switching, Network, Network Management / Operation, Software Platform, Internet, Antenna and Propagation, Electromagnetic Compatibility (EMC), Sensing, Navigation, Guidance and Control Systems, Energy in Electronics Communications, Terminals, Multimedia Systems, Broadcast Systems, Integrated Systems, Media Compound Method
C. Electronics	EC:Trans. on electron.	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:Trans. on Inf. & Syst.	Theory/Models of Computation, Theory of Automata, Formal Language Theory, Algorithms, Computational Complexity Theory, Computer System Element, VLSI Systems,Computer Systems, Theory and Models of Software, Software Systems, Software Engineering, Databases, Network, Fault Tolerance, Applications of Information Security Techniques, Cooperation in Distributed Systems and Agents, Artificial Intelligence, Cognitive Science, Man-Machine Systems, Multimedia Processing, Educational Technology, Welfare Engineering, Pattern Recognition, Speech and Hearing, Image Processing, Image Pattern Recognition, Computer Graphics, Multimedia Pattern Processing, Natural Language Processing, Biocybernetics, Neurocomputing, Medical Engineering

Membership Charges (UNIT: YEN):

Membership grades	**Entrance Charge**	**Annual Membership Fee**	**Additional Society Registration**	**Additional Transaction Subscription**	**Journal Subscription**
Service coverage for overseas members	———	Included one Society and its Transaction	Registration of one more Society and its Transaction	Subscription to an additional Transaction of registered Society	(Written in Japanese only)
Regular Member (overseas)	1,400	7,000	3,500(/1 Trans.)	3,000(/1 Trans.)	6,000
Regular Member (overseas) with OMDP*	1,000	5,000	3,000(/1 Trans.)	2,500(/1 Trans.)	5,000
Regular Member (in Japan)	2,600	13,000	3,500(/1 Trans.)	3,000(/1 Trans.)	-
Student Member (overseas)	0	2,000	2,000(/1 Trans.)	1,500(/1 Trans.)	6,000
Student Member (overseas) with OMDP*	0	1,000	1,500(/1 Trans.)	1,000(/1 Trans.)	5,000
Student Member (in Japan)	0	4,500	2,000(/1 Trans.)	1,500(/1 Trans.)	-
Affiliate Member★ (overseas)	800	4,000	3,000(/1 Trans.)	2,500(/1 Trans.)	6,000
Affiliate Member★ (overseas) with OMDP*	400	2,000	2,500(/1 Trans.)	2,000(/1 Trans.)	5,000
Associate Member★ (in Japan)	1,800	9,000	3,000(/1 Trans.)	2,500(/1 Trans.)	-

***OMDP** is to support members from countries/areas of Asia, Africa, Central America, & South America.

★**Affiliate Member** is a person who is not a specialist of fields which IEICE subject to and who have an interest to our fields. And when you want to join IEICE as an Affiliate Member, you need recommendation of the society which you want to belong to.

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Example : If you want to subscribe to Transaction of EA, and EB, please check **Society Registration** as "A", **Additional Society registration (optional)** as "B", and **Additional Transaction subscription (optional)** as "EB". Your membership fee amounts to 7,000+3,500 yen / 5,000+3,000 yen.

3. If you want to subscribe to more than one Transaction in the same society which you register, please check "Additional Transaction subscription".

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4. If you want to change membership from "Regular Member" to "Overseas Member", you don't need to pay an Entrance Charge.

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Zones	Areas	Air mail	SAL mail
1st	Asia; Guam; Midway islands	5,600 yen	3,200 yen
2nd	Oceania; Near & Middle East; North & Central America; Europe	7,800 yen	4,400 yen
3rd	Africa; South America	11,000 yen	5,600 yen

Further information: Please contact **IEICE Membership Activities Section;**
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IEICE Overseas Membership Application Form

The Institute of Electronics, Information and Communication Engineers

URL http://www.ieice.org/eng/member/OM-appli.html **E-mail** member@ieice.org

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

Personal Information ☐Male

Full name: _____ ***Nationality:*** ☐Female _____

First name Middle name Last name

☐Prof. ☐Dr. ☐Mr. ☐Mrs. ☐Ms. ☐Miss ***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 I want to enter the IEICE from ☐April ☐October year:___

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

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

Society registration (It includes one Transaction in English):

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

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

Additional Transaction subscription (optional): ☐EA: Fundamentals ☐EB: Communications ☐EC: Electronics ☐ED: Information & Systems

☐A (Japanese) ☐B (Japanese) ☐C (Japanese) ☐DI (Japanese) ☐DII (Japanese)

Journal subscription (optional) ☐(Japanese)

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

Entrance charge……..\ Journal subscription (optional)……..\ _____

Annual charge……..\ Mailing option: ☐Air mail……..\ _____

Additional Transaction (optional)…….._____ ☐SAL mail……\ _____

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 Regular 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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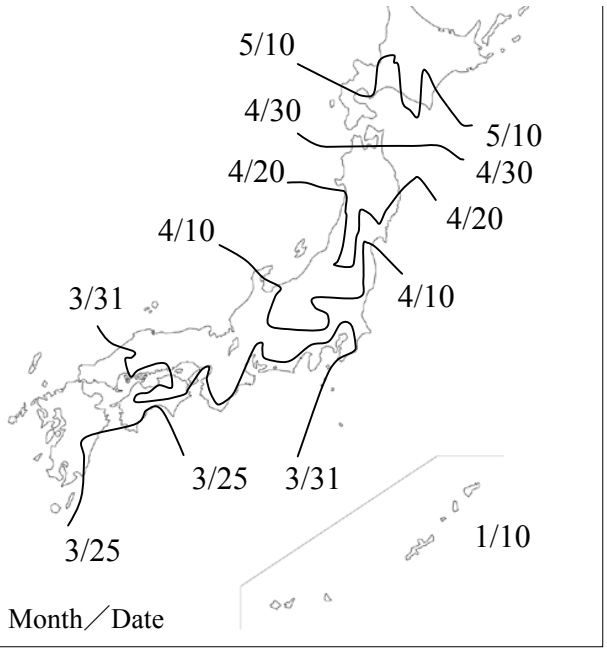
Send this form to: **The Membership Activities Section,**

IEICE Headquarters Office, Kikai-Shinko-Kaikan Bldg., 5-8, Shibakoen 3 chome, Minato-ku, Tokyo 105-0011 JAPAN

From Editor's Room

Cherry blossom is a symbol of the arrival of spring and many Japanese look forward to its blooming. The blooming starts in the south areas (Okinawa) in January, then moves northward to Kyushu, Honshu, and finally reaches Hokkaido in May. This movement, called the cherry blossom front, is reported in the news media, and the Meteorological Agency tires hard to accurately forecast of the cherry blossom front every year. In the future, smart dust sensor networks or networks of speck-sized probes could play an important role in the forecasting process.

An example of the cherry blossom front



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Call for Papers

Special Section on Multi-carrier Signal Processing Techniques for Next Generation Mobile Communications

Recently mobile communication system is changing from 2nd generation to 3rd generation, and research areas of wireless communications are already changing from 3rd generation to the next generation. The most significant point must be ultra high speed wireless data transmission over 100Mbps, and the most remarkable access scheme for 100Mbps is OFDM or multi-carrier.

The objective of this special section is to discuss technologies about multi-carrier transmission using signal processing, clear the issues or overview, and forward the research of this area.

This special section will accept widely regarding the area, but note that **only full paper by electric submission will be accepted**. Since very large number of submission is expected, papers will be published over 2 months (**Jan. and Feb., 2005**). Editors will decide how to divide into 2 months after the all reviewing will be finished.

1. Scope

Topics of this special section are following (**all topics must concern with multi-carrier signal processing**):

Adaptive modulation, MIMO, Peak reduction, Equalization, Interference canceller, Channel estimation, QoS control, and so on.

2. Submission Instructions

The deadline for submission is **May 20, 2004**. Manuscript should be prepared according to the guideline given in the "Information for Authors". The latest version of it is available at the web site, **http://www.ieice.org/eng/shiori/mokuji.html**, or you can refer its brief summary attached to IEICE Transactions. The length of the paper should not exceed 8 printed pages in principle. The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for other issues (60 days) because of the tight review schedule. In this special section, only the electric submission is adopted. Propositive authors are requested to follow carefully the submission process described below.

1. **Only papers are accepted**. If authors submit letters, they will be rejected.
2. Submit papers using the IEICE Web site **http://review.ieice.org/regist_e.wbt**. The acceptable format of the file is Adobe Acrobat™ (.pdf) file. Other any files, e-mail submission, and postal mail are **NOT** acceptable. Authors should choose *the **[Special-EB] Multi-carrier Signal Processing Techniques for Next Generation Mobile Communications*** as a "Type of Issue/Category of Transactions" on the online screen. Do not choose *[Regular-EB] Communications* or other special sections.
3. "Copyright Transfer and Page charge Agreement" and "Confirmation Sheet of Manuscript Registration" must be sent by postal mail to the following address (secretariat of this issue). Please mark "Special section on Multi-carrier Signal Processing Techniques for Next Generation Mobile Communications" on the envelope.

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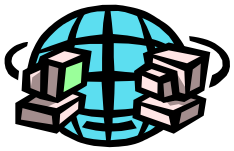
3. Editorial Committee of the special section on Multi-carrier Signal Processing Techniques for Next Generation Mobile Communications

Call for Papers

Special Section on **Internet Technology V**



The IEICE (Institute of Electronics, Information and Communication Engineers "Transactions on Communications" announces a fifth coming special section on "Internet Technology V" to be published in April 2005.
The purpose of this special section is to exchange recent information and to promote research and development on internet technology for further improvement of current internet information and for development of future advanced IP technology. The special section solicits paper submission from all people engaged in this field.

The topics of interest within the scope of this special section include, but are not limited to be the following areas:

Internet technologies and architectures

- Internet architecture
- Routing
- Protocol
- Traffic Control issue
- Mobile IP
- System
- Experiments and applications
- Security CDN (Contents Distribution Network)

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