

---

# Global Communications Newsletter

---

September 1997

## *Introduction to Korean Institute of Communication Sciences (KICS)*

*by Kyung S. Kwak, Director of KICS, Korea*

The Korean Institute of Communication Sciences (KICS) is a professional institute for communication engineers in Korea. It was established on 19 Oct. 1974, and was incorporated as a nonprofit organization under the jurisdiction of the Ministry of Information and Communications.

The goals of the Institute are to promote the advancement of theory, engineering, and applications of communications; to contribute to the development of communication industry; to promote international collaboration and information exchange; and to promote mutual relationships among members.

Today, the KICS has become the largest professional institute in Korea in the field of communications. Its members are engaged in communications sciences and engineering, the law, and policy, management, standardization, and sociological aspects of communications and information. The Institute has expanded remarkably over the last 20 years to 7837 individual members, 75 special supporting members, and 111 institutional members (as of 1 June 1997).

The Institute has 22 Technical Activity Groups (TAGs), which encompass the areas of Communications Law and Policy, Communications Management, Data Communications Network, Signal Processing, Network Traffic and Switching, Microwave and Wave Propagation, Video Communications, Optical Communications, Broadcast and New Media Technology, Communication Circuits and Components, Satellite Communications, Mobile Communications, Neural Networks, Information Society, Communication Standardization, Transmission, Coding and Information Theory, Network Management, Multimedia, High-Speed Information Communication, and Internet.

The Institute has eight regional branches, one in each province of Korea, including the Pusan and Kyungnam Branch, Taegu and Kyungbuk Branch, Kwangjoo and Chunnam Branch, Chunbuk Branch, Daejon and Chungnam Branch, Chungbuk Branch, Kangwon Branch, and Cheju Branch.

There are six different types of memberships: honorary, regular, associate, student, special supporting, and institutional members. Members pay an annual or lifetime membership fee, which covers the subscription fee of monthly journals and magazines. Members can submit papers to journals and magazines, and can serve as paper reviewers. Members can also participate in Institute activities through TAGs and regional branches. For all Institute activities, members pay discounted fees. Members can receive information services on various technical activities through regular mail and e-mail.

The KICS has several committees: Membership, Editorial,

Technical Activities, Business, Industrial Liaison, Special Affairs, and International Affairs. Additionally, it has a Board of Directors, which is the final decision-making body of the KICS, and the Board of Executive Directors, which makes executive decisions.

The Institute publishes a journal and a magazine each month. The journal publishes regular papers reporting new and innovative research results. The magazine, titled *Information and Communication*, publishes tutorial papers and articles related to special issues that vary on a monthly basis.

The Institute holds general conferences twice a year, one in summer and one in fall. The conference programs include technical sessions, invited lectures, tutorials, and panel discussions. Regular or temporary general assembly meetings are also held during the conferences. The KICS also holds various conferences, workshops, and short courses jointly with other national institutes. Most TAGs hold symposia and workshops once or twice a year, independently or jointly with other TAGs or special interest groups from other societies.

Other activities of the Institute include regional activities of the regional branches, international cooperation on the development of communication technologies, educational activities for the public, and consultation on national communications policies. Also, many research projects funded by the government and industry are initiated and performed by the Institute's members.

The KICS is now putting its efforts into globalization. It has signed a Mutual Cooperation Agreement with the Chinese Institute of Communications (CIC) in 1993, and a Sister Relation Agreement with the IEEE Communications Society in November 1995. Seeking fruitful information exchanges among international engineers and researchers, KICS publishes English-language journals jointly with other domestic institutes, and holds international conferences and symposia jointly with foreign societies. The most typical example of this is the Asia-Pacific Conference on Communications (APCC), which was first held in Daejon, Korea, in August 1993, under the cosponsorship of several national communications institutes in the Asia-Pacific region and IEEE Communications Society.

If you are interested in KICS activities or need any further information, please contact the KICS office:

Shinhong B/D Room 601  
739-1 Yucksam-Dong  
Kangnam-Ku, Seoul 135-080, Korea  
Tel: +82-2-3453-5555; fax: +82-2-539-5588  
Email: kskwak@dragon.inha.ac.kr

## Region 7 Chapter Chairs Meeting During the ICC '97 Conference in Montreal

Dr. Jacek Chrostowski, the RCCC of Region 7

At ICC '97 in Montreal, Canada, Region 7 held its Chapter Chairs meeting. The RCCC of Region 7, Dr. Jacek Chrostowski, reports details of this valuable meeting.

For the second time in a row, the Communications Society International Conference on Communications provided a venue for the Chapters Chairs from the area to meet with Communications Society executives and discuss the new initiatives, the vision of the Society, and assistance from ComSoc headquarters to volunteers. The meeting on June 8 was called and chaired by the Region 7 Chapter Coordinator, Jacek Chrostowski. It provided the volunteers with the opportunity to meet with the current executives of the Society: President Steve Weinstein, Division III Director Celia Desmond, Vice President–Membership Affairs Roberto de Marco, Vice President–International Affairs Li Shan Lee, Director of Chapters Tetsuya Miki, and Executive Director Jack Howell.

Celia Desmond, Division III Director, representing the Communications Society on the IEEE Board of Directors, showed the composition of the IEEE Board of Directors, with particular focus on the Technical Activities Board, which is made up of Division Directors and Presidents of the 37 IEEE Societies. The Communications Society is the second largest Society in the IEEE, providing benefits to almost 27,000 members worldwide.

Steve Weinstein, President of the Communications Society, followed with information on the Society, including membership statistics and information on the various ComSoc products, such as conferences, publications, Distinguished Lecture Tours, and awards.

Roberto de Marco, Vice President–Member Affairs, talked about the challenges Regions 1–7 are facing: the decline of memberships, and new initiatives to counteract this trend.

Lin-shan Lee, Vice President–International Affairs described the evolution of the Communications Society toward being a truly global society.

Tetsuya Miki, Director of Chapters, stressed that the Communications Society is eager to encourage Chapter activities and to build stronger relationships between Chapters and the Society. He discussed recent efforts directed toward this purpose, such as the free subscription program for ComSoc periodicals, Chapter funding available from the Society, Chapters information dissemination using Web pages, Distinguished Lecture tours to Chapters, and so on. He provided information on the new ComSoc management structure which comes into effect in January 1998, which will be much more effective for the formation of new local Chapters than ever.

Jacek Chrostowski, Region 7 Chapter coordinator, gave the overview of activities in Canada focusing on two new programs:

1. Region 7 introduced to all executives in Canada online Internet access to the SAMI membership database (with appropriate passwords). This initiative can easily be expanded to all ComSoc chapters, to provide up-to-date membership information, e-mail, fax, or labels, and to perform higher-level correlations on this data.
2. Digital online library of technical or historical presentations

with Real Audio multicasting (<http://iee.ca/publ/lib.html>). He invited the Communications Society to participate in these programs and expand the access of ComSoc members to the material, which is not easily available because of geographical constraints. Region 7 will be able to provide infrastructure for these initiatives. The Chapters represented at the meeting included Toronto (the ComSoc Chapter of the Year in 1996): Chair Javan Erfanian, Ottawa, and Vice Chair Sanjay Saraswat; Winnipeg: Chair Witold Kinsner, Canadian Atlantic, and Interim Chair Ivan Fair. They talked about their activities, particularly the challenges facing small Chapters in remote locations.

The discussion that followed the individual presentations focused on the emergence of the internetworking industry, which appears to be one of considerable interest to Communications Society members. This industry was recognized as the



Chapter Chairs from Canada and ComSoc Officers at ICC '97 in Montreal.

convergence of telecommunications (traditionally considered to fall within the Communications Society) and computer networks (traditionally considered a part of the Computer Society). There was discussion regarding how societies currently within IEEE should address this interdisciplinary field of study. Collaboration at the Chapter level between the Communications and Computer Societies was discussed, and the possibility of forming a new Internetworking Society was raised. Congratulations to the Communications Society members in the Canadian Atlantic Section, who formed our latest Chapter effective June 24, 1997. The interim chapter chair is Dr. Ivan J. Fair, Professor in the Department of Electrical Engineering in Daltech, Dalhousie University in Halifax, Nova Scotia. The Canadian Atlantic chapter formation qualifies for the record as one the fastest in the IEEE history. This is thanks to the tireless commitment of Ivan Fair and to new online access to the IEEE Canada membership database (<http://www.lark.ieee.ca/> for the demo) that allows volunteers to locate IEEE members' data directly from the Web. This service is available now to the IEEE Region 7 executives and can be expanded to other regions or societies.

The participants agreed that the meeting was very valuable to the volunteers and executives, and suggested that similar meetings should be held in other regions.

---

## ComSoc Reports Election Results

By Carole Swaim, Senior Administrator, Volunteer Services and Administration

Our annual elections have just ended, and we extend our appreciation and gratitude to all candidates, not only the winners. All are talented and dedicated individuals who are willing to donate precious time and energy to the management of the Communications Society. We expect that they will continue serving our Society in responsible positions in the years to come.

The May issue of *IEEE Communications Magazine* contain the position statements and biographies of this outstanding slate of 25 candidates. Thanks go to the members of our Nominations and Elections Committee, chaired by Past President Maurizio Decina, for their endeavors to identify excellent and willing candidates.

In an effort to better address the needs of our global community, we have expanded our number of Vice Presidents to four. This year, in addition to electing four Members-at-Large, you selected a Vice President — Technical Activities, Vice President — Membership Services, Vice President — Membership Development, and Vice President — Society Relations.

We offer congratulations to and welcome our new Members-at-Large for the 1998–2000 term: Gerhard Fettweis, Paul Hartmann, Michael Kincaid, and William Robinson.

Congratulations and best wishes to our new Vice President—Technical Activities Doug Zuckerman, currently serving as ComSoc's Director of Meetings and Conferences. In his capacity as VPTA, Doug will promote all technical activities. Reporting to him will be the Chairs of our Technical Committees, Awards Committee, Fellow Evaluation Committee, and

the Technical Committees' Recertification Committee.

We also welcome and congratulate our new Vice President — Membership Services, Curtis Siller, presently our Director of Magazines. As VPMS, Curtis will promote the interests of all publications, meetings, and conferences, and educational activities. Reporting to him will be the Director of Journals, Director of Magazines, Director of Meetings and Conferences, and Director of Education.

Our new Vice President — Membership Development is Ron Horn, currently serving as Member-at Large on our Board of Governors. We welcome Ron in his role of VPMD, wherein he will promote and further the interests of ComSoc members — including chapter service development, membership development, management of member benefits programs, and development of new information services. Reporting to Ron will be the Director of Membership Programs, Director of Information Services Development, Director of the Asia Pacific Region, Director of the Europe/Africa/Middle East Region, Director of the Latin America Region, and Director of the North America Region.

Finally, we congratulate our new Vice President—Society Relations, Tetsuya Miki, currently serving as Director of Chapters. In his new role as VPSR, Tetsuya will promote relationships with IEEE societies and other professional societies worldwide, fostering a strong international Society presence.

Please join us in welcoming these newly elected officers who will lead the IEEE Communications Society into the 21st century.

---

## A New Step Toward the Liberalization of the Telecommunications Market in Spain: RETEVISION

By Joan Garcia-Haro, Spain

Under the deregulation and liberalization process established and boosted within the European Union, new telecommunications opportunities are appearing in Spain. Spain is the 11th largest market in the world for telecommunications equipment and services, and may be the eighth largest by the year 2000. However, the country does not have a major domestic telecommunications manufacturer, therefore being very attractive to many international telecommunications manufacturers.

Until competition began to arise in Spain with the authorization of the second mobile telephony operator, TELEFONICA de Espana ran the market in a monopolistic way and had complete control of the information technology industry.

Now TELEFONICA is almost totally privatized and will face a new competitor, RETEVISION SA, which holds the second telecommunications license to operate in Spain.

A 60 percent stake in RETEVISION was recently sold by the Spanish Government as part of the effort to open this interesting market. Also, RETEVISION provides a foothold in Europe's carved-up telecommunications market.

RETEVISION was the public entity in Spain responsible for the transmission of public and private radio and TV signals, having coverage of close to 100 percent of the population. It was also in charge of the public telecommunications system and gave other services as business networks.

RETEVISION has an important experience and operational infrastructure. It owns a terrestrial wideband digital

network of 140 Mb/s able to transport all type of signals. It is the main operator of the Spanish satellite system (HISPASAT). It is going to deploy a terrestrial digital video and audio broadcasting system. Likewise, RETEVISION is diversifying its activities increasing the nonaudiovisual ones, renting transmission capacity and giving data services over frame relay and ATM to mobile telephony operators, news agencies, banking firms, and other communications companies. Since its creation in 1989, RETEVISION is obtaining economical benefits that are increasing each year.

In this framework three company consortia submitted bids to control RETEVISION. One was made up of Banco Central Hispanoamericano (one of the biggest banks in Spain), France Telecom, and Sprint Corporation. The other was led by ENDESA (the major electricity company in Spain) and the Italian operator Stet (Union Fenosa, Euskaltel, and six saving banks are also in this consortium). The third was the German group Mannesmann.

The economical offer for 60 percent of RETEVISION was a key issue, and the ENDESA-Stet group ended up being the winning consortium by offering 116,359 million pesetas in front of the 84,000 million pesetas of the BCH, France Telecom, and Sprint consortium, even though they presented the best technological proposal.

This second operator created around RETEVISION will start operating this year, and the competition with TELEFONICA should lower the tariffs, having a positive impact in the user and on the Spanish economy.

# A Report on the Mexican Spectrum Auctions

By Carlos Hirsch, Mexico

In June 1995, a new Mexican Telecommunications Law was published, addressing several significant regulatory changes. For this report, it is relevant to point out that under the new law there are only five types of spectrum assignments: free, licensed, official, experimental, and reserved. Any kind of public or private network utilizing spectrum requires a concession from the government to operate in Mexican territory. To grant any concession over any spectrum band, a public and open auction is mandatory. Concessions are granted for a maximum of 20 years with a one-time optional renewal for another 20 years, subject to government conditions.

After more than one year of inactivity in this area, in October 1996 a simultaneous auction covering nine national and 27 regional paging concessions was successfully accomplished over fourteen rounds. This auctioning process yielded a total of US \$1.7 million for the Mexican Treasury and a final value of US \$125,000 for a 20-year national paging license.

Two other important events are scheduled for the rest of 1997: the auction of 35 nationwide concessions for point-to-point microwaves, with 56 and 100 MHz bandwidth, in the 15 and 23 GHz bands; and 45 point-to-multipoint regional concessions in the 10 GHz band. The auctions are scheduled to begin on July 28. The outstanding feature of these auctions is

1850–1865, 1930–1945	30 MHz PCS
1870–1885, 1950–1965	30 MHz PCS
1865–1870, 1945–1950	10 MHz PCS
1885–1890, 1965–1970	10 MHz PCS
3425–3450, 3475–3500	50 MHz wireless access
3525–3550, 3575–3600	50 MHz wireless access
440–449, 485–494	14 MHz wireless access

that microwaves are defined as public services, and concessions for a segment of spectrum will be awarded; this is one of the first experiments in the world involving microwaves and using this philosophy. This bands will be used for customers' private branch exchange last mile connection, a wireless network backbone, and long distance bypass of the local network.

As a public service, microwaves will be made available to customers by the concession holder for a price. In order to create a competitive market, no single company will be able to own more than 20 percent of the available spectrum. Additionally, to avoid any kind of discrimination or abuse, the winners of the auctions must select a single neutral private company to manage noninterference studies and to keep the national microwaves database up to date. This is also an innovative feature of the process. Spectrum police (monitoring and verification) functions will remain within government bodies.

Wireless local access is the other important bidding process this year. The country has been divided into nine regions (see the table), consistent with the current cellular concessions, and 59 simultaneous auctions in several bands will be held in October.

To participate in these auctions, the investors must be Mexican companies (foreign ownership is limited to 49 percent of voting shares). Participants must present a business plan and a description of their project. Demonstration of technical and financial viability is required. This very creative approach by the COFETEL (Federal Telecommunications Commission), in charge of the procedure, does not limit technology or services to be provided over these bands. Using a PCS segmentation similar to the American definition, it will be possible to offer mobile services and roaming with an attractive neighbor market. At the same time, there is no regulatory distinction between mobile or fixed services.

Together with this process, after establishing national numbering and signaling Fundamental Plans and opening the long distance market to competition in January 1997, the next step is to define the local interconnection rules. This will be a very difficult task because it includes the always sensitive issues of defining local calling areas, access rates, portability, calling party payment, and other elements.

## Global Communications Newsletter

[www.comsoc.org/pubs/gcn](http://www.comsoc.org/pubs/gcn)

**BYEONG GI LEE**  
Editor

Seoul National University  
School of Electrical Engineering  
Seoul 151-742, Korea  
Tel: +82-2-880-7276  
Fax: +82-2-880-8214  
E-mail: [blee@tsp7.snu.ac.kr](mailto:blee@tsp7.snu.ac.kr)

**SAEWOONG BAHK**  
Associate Editor

E-mail: [sbahk@netlab.snu.ac.kr](mailto:sbahk@netlab.snu.ac.kr)

### Regional Correspondents

ABRAHAM ALCAIM, Brazil • ROBIN M. BRAUN, South Africa  
Mehmet Ufuk Caglayan, Turkey • Zhigang Cao, China  
CHI-CHAO CHAO, Taiwan • JAVAN ERFANIAN, Canada  
JOAN GARCIA-HARO, Spain • M. ADEEB R. GHONAIMY, Egypt  
JURI GORNOSTAEV, Russia • CARLOS HIRSCH, Mexico  
Hideo Kuwahara, Japan • Dongmyun Lee, Korea  
ALGIRDAS PAKSTAS, Lithuania and Norway • GIANCARLO PIRANI, Italy  
N. RAVI, India • NIKOLAI SOKOLOV, Russia  
K. R. SUBRAMANIAN, Singapore • Anupap Tiralap, Thailand  
WAHIDIN WAHAB, Indonesia

**TETSUYA MIKI**  
Chapters Corner



A publication of the  
IEEE Communications Society

To submit contributions to the *Global Communications Newsletter*, send proposed articles or news items to:

Byeong Gi Lee, Editor  
E-mail: [blee@tsp7.snu.ac.kr](mailto:blee@tsp7.snu.ac.kr)

Saewoong Bahk, Associate Editor  
E-mail: [sbahk@netlab.snu.ac.kr](mailto:sbahk@netlab.snu.ac.kr)

Seoul National University  
School of Electrical Engineering  
Seoul 151-742, Korea  
Tel: +82-2-880-7276  
Fax: +82-2-880-8214