

# IEICE Global Plaza

— Monthly community plaza in English for students, faculties and engineers —

## Essay

### Regional Collaboration as a key for Internationalization

by Zhisheng Niu

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The internationalization of the IEICE has longtime been promoted by many pioneers of the institute. Started from IEICE English journals, there have been many attempts and actions deployed such as English sessions at the national general congress and society congress, oversea membership development program (OMDP), and oversea representatives. Although most of them have been very successful, we may need to revisit some of them to see what we are missing and possibly even redefine the “internationalization” from a new angle.

For a long time, people have simply considered the “internationalization” as globalization, which is in nature a very tough goal because the globe itself is quite diverse in economy and culture and therefore it is not easy to find a single value and rule for the globalization. Nevertheless, we are indeed living in a more and more globalized world where it is almost impossible to do anything alone. At APCC2007 (Asia-Pacific Conference on Communication, Bangkok, Thailand, Oct. 2007), Dr. Yuji Inoue, President & CEO of the Telecommunication Technology Committee, Japan delivered a keynote speech in which he proposed a new rising Palladium called “inter-regional”. I was deeply impressed by this idea and therefore would like to share with you that the regional collaboration is a key and a practical way for the internationalization, at least in a foreseeable future. Without a regional consensus and a win-win collaborative environment, the real internationalization would be never possible. Therefore, even closer collaborations with the local sister societies in our region are strongly recommended.

As an example, the Communication Society (ComSoc) of IEEE has conducted a lot of efforts to promote the regional

collaborations in a more effective way, with eight sister societies in AP region including IEICE ComSoc. Just as Fig.1 shows, the first joint event of Asia-Pacific regional chapter chair congress and sister society summit (AP-RCCC/SSS) was held in Tokyo in October 2008. That was really a successful event, where the society leaders inside the region exchanged their ideas and views for a better “global” service to our members.

## Hot Topics

### International Forum on Digital Terrestrial TV promotes shared better understandings in Pacific-rim countries for Unified Standards

by Sachio Fukuda

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Association of Radio Industries and Business, Japan

The Association of Radio Industries and Business (ARIB) is designated by Ministry of Internal Affairs and Communications as a center for the efficient use promotion of radio spectrum and simultaneously as an agency for designated frequency change support. ARIB conducts relevant studies and R&D, establishes standards, provides consultation services for radio spectrum coordination, cooperates with other overseas organizations and provides frequency change support services for the smooth introduction of digital terrestrial television broadcasting. Thus, ARIB’s R&D activities mutually have close ties with IEICE’s academic activities, especially in the advanced use and global development of radio spectrum toward the future relieved, safe and convenient ubiquitous network society.

Now, International Digital TV Forum for Latin America and Caribbean countries was held in Cuenca, Ecuador on 4-5 December 2008. It was organized by the telecommunications regulator in Ecuador, SUPATEL (Superintendencia de Telecomunicaciones) and an academic institution CIEELA (Colegio de Ingenieros Electricos y Electronicos del Azuay). Representatives of broadcasting authorities from twelve countries participated in the forum as well.

Most of the countries have not adopted digital terrestrial television (DTT) standards yet. The delegates from organizations promoting the candidate DTT standards, ATSC (Advanced Television Systems Committee, USA), DVB-T (Digital Video Broadcasting – Terrestrial, Europe), DTMB (Digital Terrestrial Multimedia Broadcast, China) and ISDB-T (Integrated Services Digital Broadcasting-Terrestrial, Japan), were invited to present each of their own standards from the viewpoints of technology, economy and economic cooperation. The forum itself was planned to enhance common understanding for adoption of the unified standard for a digital terrestrial television (DTT) among Latin America and Caribbean countries. It was targeted to overcome the digital divide and allow universal access to new digital technology.

The representatives of ISDB-T explained technological and



Fig.1 AP-RCCC/SSS delegates  
(the author, left 4<sup>th</sup> in the front row)

economic advantages over the other standards and simultaneously economic cooperation plans which were offered by Japanese government to make the standard experienced by people in Latin America and Caribbean countries. The indoor demonstration of the ISDB-T with HDTV program and mobile TV services called “One-Seg” was also provided during the forum as shown in Fig.2 and Fig.3. It was only ISDB-T in the candidate DTT standards that showed the indoor demonstration of both program delivery and reception implementing HDTV and One-seg in a single 6MHz bandwidth. Many participants from Ecuador as well as the neighboring countries looked mostly impressed in the new technologies of ISDB-T at the first actual demonstration of DTT program delivery and reception in Ecuador.

They agreed to the following points in the forum.

- (1) To set up a regular regional forum on DTT
- (2) The next meeting will be held in Havana on March 2-3, 2009.

Regarding the detailed information on the statement agreed by the Forum participants and on the Forum and associated events in general, please see <http://www.supertel.gov.ec>.



Fig.2 Demonstration of ISDB-T with HDTV Programs for the Forum participants in Ecuador



Fig.3 Forum participants enjoying the One-seg Demonstration

## Useful Remarks

### What is System and Signal Processing Sub-Society?

#### Technical Committees and Topics

by Assc Prof. Nozomu Togawa and

Assc Prof. Kenji Nakagawa

IEICE Engineering Sciences Society

Global Plaza no.2 introduced the principle, evolving society with increasing membership and coverage of both traditional and pioneering fields of IEICE Engineering Sciences Society. The Systems and Signal Processing Sub-Society is one of the four sub-societies and extends the following technical committees under IEICE Engineering Sciences Society. The representative

research activities of the sub-society are focused into the areas “system”, “signal processing” and interdisciplinary area between these two areas, to develop the fundamental technologies which will be required for the future info-communications society with ubiquitous services. The special fields covered by each technical committee are summarized as following:

#### (1) Technical Committee on Circuits and Systems (CAS)

CAS is one of technical committees with long history of academic activities. It covers research topics as following: circuit theories, modeling and simulation, circuit CAD, various types of filtering, analog and digital circuits, AD and DA converters, etc.

#### (2) Technical Committee on VLSI Design Technologies (VLD)

VLD promotes a wide area of research activities covering from the fundamental research topics to novel advanced research topics for design technologies of VLSIs. The primary topics are represented by VLSI designing methodology, behavioral synthesis, logic synthesis, physical synthesis, low power consumption design, simulation and modeling, etc.

#### (3) Technical Committee on Signal Processing (SIP)

SIP promotes research activities in the fields of signal processing in general including algorithms, applications and circuit implementation technologies. The representative research topics are basic signal processing, mathematics of signal processing, digital filtering and filter bank, multidimensional signal processing, adaptive signal processing, nonlinear signal processing, etc.

#### (4) Technical Committee on Concurrent System Technology (CST)

CST promotes research activities which would be focused into Concurrent System Technology. The current representative topics are parallel and distributed system theory, concurrent engineering, discrete event system, autonomous decentralized system, production system, etc.

Each of the technical Committees provides seminars on monthly basis and many members gather there to have paper presentations, discuss the topics and exchange opinions on a pre-defined special theme. Furthermore, the Sub-Society organizes “Workshop on Circuits and Systems in Karuizawa” every April, and “Signal Processing Symposium” every November, through cooperative works of all the technical committees, so that general participants in the workshop or symposium can discuss special topics with paper presentations and exchange opinions from wider viewpoints. We would like to welcome your participation!

## Message from TFIPP Secretariat

### Welcome your constructive opinions and proposals to IEICE !

The Global Plaza is published according to the discussion and decision by Task Force for International Policy and Planning (TFIPP) under IEICE International Affairs Committee. For the time being, eight members entrusted from industries, universities and administrations manage TFIPP. The primary target of TFIPP is to draw the appropriate roadmap of globalization toward the future IEICE activities. Any constructive opinions and proposals will be most welcome. Whenever you have questions or opinions to IEICE, please do not hesitate to contact Prof. Kenzo Takahashi/ IEICE-TFIPP at the e-mail address [global\(at\)ieice.org](mailto:global(at)ieice.org) writing “TFIPP” into the subject box.