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Editorial Message

Welcome to the 22nd edition of the Comsoc AP Newsletter. I hope you will enjoy reading this latest update of IEEE Comsoc events in the Asia Pacific Region. In this issue, we introduce the five APB-award recipients to you and provide updates on wireless developments in this region. The two technology updates are press reports, one is from Hong Kong, and the other is from Japan. In addition, three conferences are included: one was held in June, 2002, in Chengdu, the other is going to take place in Korea, and another will be in Sydney. Again, I would like to take this opportunity to thank the authors for contributing to the newsletter. To make our newsletter a truly AP newsletter, we invite you to contribute articles and news on your respective regions. We would also appreciate any comments you may have to improve the newsletter. Thanks in advance and enjoy reading!

Wanjiun Liao, Editor

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1. APB Director's Message by Prof. Kwang-Cheng Chen

Dear Colleagues in the Asia Pacific Region:

It is near the end of 2002. Looking back this year, telecommunication industry has experienced a hard time and the ending seems not coming yet. However, there are a few exciting situations in Asia Pacific region. Korea is now no. 1 in the world in broadband access networks; Japan is the no.1 in 3G cellular trial; Taiwan cellular penetration rate reaches 100%.

On the other hand, IEEE Globecom 2002 is held in Taipei, a city in Asia Pacific region. There are more and more ComSoc activities in this region. Members in AP region act as Editor-in-Chief for three ComSoc journals, IEEE Communications Magazine, IEEE Communications Letters, IEEE Transactions on Wireless Communications. We do observe active participation for our members.

We also appreciate a lot of pioneer work to set up the very first AP Young Research Award. The 5 winners will be awarded at Globecom Award Luncheon, as the honor of the whole AP region. We would appreciate a lot of people's hard working toward this stage, especially Dr. Naohisa Ohta and Dr. Naoaki Yamanaka.

There is another event, RCCC in AP region, along with this Globecom 2002. It is great for us to get together many chapter chairs to brain-storm what we can do better for our members.

Regarding future work, we will particularly focus on better serving our members in chapter activities, promoting more technical activities in this region such as major ComSoc conferences and journal activities, and of course more participation from all aspects.

Your devotion to ComSoc activities is number 1.

Kwang-Cheng Chen (K.C.)

2. The 1ˢᵗ Asia-Pacific Young Researcher Award, 2001 by Dr. Naoaki Yamanaka

The IEEE ComSoc Asia Pacific board honors the recipients of the 1ˢᵗ IEEE ComSoc APB Young Researcher Awards. Young researchers, who are under 35 years old and active in the APB region as well as the communication field, were assessed in terms of their activity, originality and quality. The IEEE ComSoc APB have selected Dr. Byoung-Hoon Kim as Best Young Researcher and Prof. Wen-Jyi Hwang, Dr. Eiji Oki, Prof. Tomoaki Otsuki, Prof. Shiann-Tsong Sheu as Outstanding Young Researcher.

Best Young Researcher

Byoung-Hoon Kim, GCT Semiconductor, Inc., Korea for his contribution to CDMA, synchronization, channel coding, and signal processing for communications. Byoung-Hoon Kim received the Ph.D. degree in electrical engineering and computer science from Seoul National University, Seoul, Korea, in 2000. Since August 2000, he has been with GCT Semiconductor, Inc. developing W-CDMA and Wireless-LAN chip sets. His current research interests include CDMA, channel coding, communications theory, and signal processing for telecommunications. He is a co-author of Scrambling Techniques for CDMA Communications (Kluwer, 2001) and has published scores of papers on CDMA and communications systems. Dr. Kim received the Best Paper Award (on Communications) of Samsung Humantech Paper Contest in 1999, an Excellent Paper Award from Asia Pacific Conference on Communications in 1999, and the Best Paper Award from European Wireless 2000

Outstanding young researcher

Wen-Jyi Hwang, Chung Yuan Christian University, Taiwan for his contribution to Layered Image Transmission and Video/Image cording. Wen-Jyi Hwang received his diploma in Electronics Engineering from National Taipei Institute of Technology, Taiwan, in 1987, and his M.S. and Ph.D. degrees from the University of Massachusetts, Amherst, in 1990 and 1993, respectively. In 1993, he joined the faculty at Chung Yuan Christian University, where he is currently a Full Professor of the Department of Electrical Engineering. He is the recipient of the Outstanding Research Professor Award from Chung Yuan Christian University in 2001. His research interests include multimedia communication, image/video coding, and digital signal processing.

Eiji Oki, NTT Network Innovation Labs., Japan for his contribution to Broadband network, ATM and Optical IP technology. Eiji Oki received B.E. and M.E. degrees in instrumentation engineering and a Ph.D. degree in electrical engineering from Keio University, Yokohama, Japan, in 1991, 1993, and 1999, respectively. In 1993, he joined Nippon Telegraph and Telephone Corporation's (NTT's) Communication Switching Laboratories, Tokyo Japan. He has been researching multimedia-communication network architectures based on ATM techniques, traffic-control methods, and high-speed switching systems in NTT Network Service Systems Laboratories. He was a Visiting Scholar at Polytechnic University, Brooklyn, New York, from 2000 to 2001. He is now engaged in researching and developing high-speed optical IP backbone networks as a Research Engineer with NTT Network Innovation Laboratories. Dr. Oki received the Switching System Research Award and the Excellent Paper Award from the IEICE in 1998 and 1999, respectively. He co-authored a book, "Broadband Packet Switching Technologies," published by John Wiley & Sons, New York, in 2001. He is a member of the IEICE and the IEEE.

Shiann-Tsong Sheu, TamKang University, Taiwan for his contribution to Protocol and architecture designs for wireless, optical and ATM networks. Shiann-Tsong Sheu was born in Taiwan, R.O.C., in 1968. He received the B.S. degree in applied mathematics from National Chung Hsing University, Taiwan, R.O.C., and the Ph.D. degree in computer science from National Tsing Hua University, Taiwan, R.O.C., in 1990 and 1995, respectively. He is currently a professor in the Department of Electrical Engineering at at Tamkang University. His research interests are in the area of wireless/mobile computing and multimedia applications.

Tomoaki Otsuki, Tokyo University of Science, Japan for his contribution to Optical CDM/CDMA Systems and Wireless Communication Systems. Tomoaki Otsuki received the B.E., M.E., and Ph. D. degrees in Electrical Engineering from Keio University, Yokohama, Japan in 1990, 1992, and 1994, respectively. From 1994 to 1995 he was a Post Doctoral Fellow and a Visiting Researcher of Electrical Engineering at Keio University. From 1993 to 1995 he was a Special Researcher of Fellowships of the Japan Society for the Promotion of Science for Japanese Junior Scientists. From 1995 to 1999 he was an Assistant Professor of Tokyo University of Science. From 2000 he has been a lecturer (tenured) of Tokyo University of

Science. From 1998 to 1999 he was with the department of electrical engineering and computer sciences, University of California, Berkeley. He is engaged in research on optical communication systems, wireless communication systems, and information theory. Dr. Otsuki is a recipient of the 1997 Inoue Research Award for Young Scientist, the 1997 Hiroshi Ando Memorial Young Engineering Award, and Erricson Young Scientist Award 2000, 2002 Funai Information and Science Award for Young Scientist. He is a senior member of the IEEE and a member of the IEICE Japan and the Society of Information Theory and Its Applications (SITA).

3. APB Office Report -- Distinguished Lecture Tours in 2002 by Fanny Su

We received approvals to coordinate 4 Distinguished Lecture Tours for the Asia Pacific region for year 2002. The Distinguished Lecturers toured locations that were geographically grouped for maximum coverage of Chapters, while schedules were fixed based on the Distinguished Lecturer's availability and Chapter's preferences for the DLT dates.   We were pleased that the geographical coverage by the 4 DLTs allowed almost everyone of our Chapters in the Asia Pacific the opportunity to host at least one DLT.

DLT #1: Ezio Biglieri (18-27 April 2002) to Bandung (Indonesia), Kuala Lumpur (Malaysia), Singapore and Bangkok (Thailand).

DLT #2: Rodger Ziemer (25 May – 6 June 2002) to India covering Bombay, Bangalore and Hyderabad

DLT #3: Lajos Hanzo (1-20 Sept 2002) to Australia (7 locations) and New Zealand (2 locations).   He gave lectures in Perth, Adelaide, Melbourne, Canberra, Sydney, Brisbane, Townsville in Australia and Auckland and Christchurch in New Zealand.

DLT #4: Hikmet Sari (22 Nov – 2 Dec 2002) to Taipei (Taiwan), Hong Kong, Seoul (Korea), Tokyo (Japan) and Singapore.

We wish to acknowledge and thank our Distinguished Lecturers for their time and effort in touring the region for us, and our Chapters for organizing and extending their hospitality to the Distinguished Lecturers.

The DLTs are increasingly popular with our Chapters as a means to promote technical activities and membership.   Our Chapters utilized the allotted quota of DLTs for the Asia Pacific region for year 2002, and budget constraints prevented us from accepting requests for more DLTs to this region.   Nevertheless, a new year is approaching and we hope to field interests from our Chapters to host the DLTs in year 2003 at the upcoming AP Regional Chapter Chair Congress at GLOBECOM 2002(17-21 Nov) in Taipei, Taiwan. We strongly encourage those Chapters that have not hosted a DLT to consider hosting one for year 2003.

The policies and procedures for Distinguished Lecture Tours are found at this ComSoc web site: http://www.comsoc.org/socstr/memprog/dislec/index.html. Generally, ComSoc funds the Distinguished Lecturer's airfares to and between the Chapters. Hosting Chapters are required to take care of all local expenses which would be mainly hotel accommodation, meals, local transportation and to extend their hospitality. Chapters wishing to host the DLTs should familiarize themselves with the policies and procedures or send their queries to us at ieeeapo@pacific.net.sg

4. Motorola Asia Pacific Limited and Versitech Limited to launch Mobile Instant Image Solution Globally by Versitech Limited, Hong Kong

Hong Kong, May 5, 2002 – Motorola Asia Pacific Limited, a global leader in providing integrated communication solutions, today announced their partnership with Versitech Limited, the technology transfer company of the University of Hong Kong, to globally launch Versitech's e-Eye Personal Edition software for their Java PDA phone 388.

The e-Eye Personal Edition is a Mobile Instant Image Solution written in Java using J2ME/MIDP (Java 2 Micro Edition/Mobile Information Device Profile). The Solution comprises two software components, a viewer at the mobile terminal side and a server program at the PC side. When the server program is activated, it will send the images captured from the web-cam that is connected to the PC to a Java PDA phone via GPRS (General Packet Radio Service). The user can view the images from his/her Java PDA phone by just entering the corresponding IP address,

port number and password at the viewer program that is installed in the phone.

Professor Victor Li, Chair Professor of Information Engineering at HKU and Managing Director of Versitech Limited, said, "The killer application for high speed wireless communication is going to be multimedia services, especially Internet access to such services. Versitech's e-Eye and Motorola's 388 Java PDA phone allow us to provide this service today at an affordable price." He further quoted a statement that he had predicted in one of his articles published in IEEE Proceedings in 1998 – where he wrote, "When Personal Information Service becomes widely available, it will change the way we live …" "The Partnership between Motorola and Versitech provides this service today," said Professor Li.

About Versitech Limited

Versitech Limited is the technology transfer company of the University of Hong Kong. Its mission is to promote applied research and technology transfer. It has a proven Java solutions team that offers software product development and deployment, system integration, and is very experienced in delivering a total solution to its customers. For more information, visit http://www.versitech.hku.hk/.

5. 60% of Japanese Consumers Will Pay for Wireless LAN Services, says Tokyo-based Research Firm by Kikakuya, Inc., Japan

TOKYO, Japan, Sept. 09, 2002 – According to a study of over 10,000 people owning portable notebook computer and personal digital assistants (PDAs), Japanese consumers are becoming aware of wireless LAN services but are looking for cost-effective ways to access them.   The survey found 63% of all respondents familiar with the term "wireless LAN," with 60% willing to pay for a high-speed wireless LAN package if priced below 2,000 yen per month (Approx. US$16). Even greater awareness and interest was found among business users, 96% of whom were familiar with WLAN.

The WLAN market survey is part of a new study titled "The Japan Wireless LAN White Paper 2002 – 2003," produced by Tokyo-based research firm Mobile Media Japan.   The study is based on an examination of over 40 wireless LAN projects and services underway across Japan. The consumer survey was conducted in collaboration with Japanese marketing firm Kikakuya, Inc.

WLAN Comes to World's Most Advanced Wireless Services Market

Wireless LAN products and services are a rapidly developing area in Japan, which has the world's most advanced wireless data market. Since 1999, over 50 million Japanese consumers have signed up for mobile Internet services and are now spending an estimated 300 billion yen (US$2.4 billion) annually on wireless data. The demand for higher-speed wireless access has also so far attracted 1.3 million customers to third-generation (3G) services since they were launched in late 2002 by KDDI and NTT DoCoMo.   With 5 million more users now signed up for broadband Internet, service providers are poised to launch a new channel of wireless access via WLAN.

The market received an additional push earlier this year when the Japanese government announced a "Ubiquitous Network Forum" and proposed industry initiatives it hopes will develop new high-speed wireless infrastructure and generate 80 trillion yen (US$640 billion) in new markets by 2010.

Wide Cast of WLAN Players and Services

Since the spring, Japanese operators and manufacturers have begun rolling out new wireless access services and products for public spaces, hotels and retail facilities, and the home.   The majority of services operate on the 2.4 GHz (IIE802.11b) and require users to have a compatible data card for their lap top or PDA to get access.   Major players include members of the NTT Group, KDDI, Japan Telecom, Softbank, Yahoo! BB, and Yozan. Wireless access to homes in the 5 GHz band (IIIE 802.11a) is also being tested by SpeedNet, a member of the Tokyo Electric Power group.

The menu of new services range from free and open "hot spot" access points in public areas to fee-based security protected wireless networks for business users. Softbank and Yahoo! BB have begun offering wireless LANs

at McDonald's and Mister Donut's outlets for free, while Mobile Internet Services provides secure access to its wireless network in Tokyo for 2000 yen ($US16) per month.

As Service Providers Test Business Models, Hot Spot Services to Feel Heat

Although industry experts agree that high-speed ubiquitous wireless access is coming to Japan, companies are now experimenting with a wide variety of different business models to learn which will prove successful. NTT Communications, which recently launched its "Hot Spot" service, is charging individual consumers between 1600 and 2000 yen per month for access at speeds of up to 11mps. Meanwhile, NTT East has unveiled a business-to-business proposition which charges corporate customers for high speed lines and installation of wireless access points to offer their end users.

According to the Mobile Media Japan report, consumer-based commercial hot spot services in particular will face serious challenges. "These companies now have to win an uphill campaign to identify their customers and overcome user concerns about coverage, cost, and possibly security. Few if any hot-spot only services will survive the coming shakeout," says MMJ analyst Scott Muff. "There is clear demand, and users are telling us they are ready for WLAN, but that they are not yet seeing the kinds of services they want."

The survey uncovered stronger interest among business users than general consumers to seek out a hot spot, with 65% of business users stated they would be more likely to visit a coffee shop offering wireless LAN as opposed to 45% of overall respondents.

Mobile Media Japan says the Japanese market is nurturing a number of business cases that validate commercial applications of wireless LAN. In particular, the report identifies promising products that target non-competing segments and also compliment current wireless offerings in Japan. These include WLAN services offered via existing ISPs, fixed-cost wireless IP phone, WLAN security, and home-networking capability.

About the Survey and Report

The Japan Wireless LAN User Survey was conducted in July, 2002. Data was collected via the Internet from over 19,000 individual respondents. More information is available in the Mobile Media Japan "The Japan Wireless LAN White Paper 2002 ? 2003." This study covers the most promising and creative new wireless LAN services in Japan, and examines the companies and customer attitudes shaping Japan's wireless LAN sector. The full report can be purchased at Mobile Media Japan's Web site at http://www.mobilemediajapan.com/press/wlan2003/overview.html.

About Mobile Media Japan

Mobile Media Japan KK specializes in research and consulting for wireless companies operating in Japan, Europe and the USA. The company is headquartered in Tokyo, Japan with representatives in Amsterdam, the Netherlands and Los Angeles, California. For more information, visit http://www.mobilemediajapan.com

About Kikakuya, Inc.

Since its establishment on December 1994, Kikakuya, Inc. has been a leading provider of Internet services in Japan. By forming a partnership with digiweb.com, Kikakuya began offering web hosting, Internet marketing and consulting services. In 1996, Kikakuya launched subsidiary service ClubBBQ http://www.clubbbq.com. ClubBBQ evolved from the Company's "original mail address" program to have the ability to provide solution in email technology, protect online mailing privacy, and research accurate Japanese market trends. For more information, visit http://www.kikakuya.com.

7. ComSoc Conferences in the Asian Pacific Region

a. ICCCAS 2002, IEEE Communications press, Chengdu, Xicheng, China, by Prof. Juebang Yu

The first ICCCAS conference was just held in Chengdu, June 2002. This conference was organized by the University of Electronic Science and Technology of China (UESTC), in cooperation with the China Council for the Promotion of International Trade (CCPIT) -- Sichuan Council. The conference was sponsored by the China Institute

of Communication (CIC) and the China Institute of Electronics (CIE), technically co-sponsored by IEEE, Communication Society of IEEE, Circuit and Systems Society of IEEE, also supported by National Natural Science Foundation of China (NSFC) and Ministry of Education of People's Republic of China (MOE P.R.C.). ICCCAS'02 is steered by international committees consisting of worldwide academicians, researchers and engineers in the pertinent fields. More than 300 attendants, came from North and South America, Europe, Asia and Oceania gathered in Chengdu to exchange technical ideas, innovative research results in the communications, circuits & systems areas to discuss state-of-the-art technologies, progress in standards, services and their applications in telecommunication and information systems.

The conference was grouped into several sub-symposia covering progress in almost all areas of communications, signal processing, circuits and systems. 598 papers were submitted to the conference from more than twenty countries and regions all around the world. Each paper was carefully reviewed and scored in general by three experts. Finally 372 papers were accepted and collected into the proceedings. These papers were presented in 51 sessions at the conference featuring the state-of-the-art in their pertinent fields. Seven keynote speeches were also addressed at the plenary meetings. 34 papers in eight tracks (Communication Theory, Wireless, Multimedia, Optical and Broadband Communications, Signal Processing, Computation Intelligence, VLSI CAS Design and Implementation, and Circuits and Systems) were nominated as candidates of best papers, finally 10 Best Paper and Best Student Paper Awards (CT03.2; CT05.2; WC08.1; WC08.4; WC11.5; BC05.6; SP07.2; VC02.3; CE004.5 and NN01.1) were granted at the Closing Ceremony.

The "2002 International Conference on Communications, Circuits and Systems and West Sino Expositions Proceedings" (ISBN: 0-7803-7547-5, IEEE Catalog Number: 02EX591, Library of Congress: 2002106474) and the CD-ROM have been approved as official IEEE publications and distributed to all authors of the registered conference attendants. For more information, please access to the website at http://icccas02.uestc.edu.cn/.

b. IEEE VTC2003-Spring

On behalf of the Organizing Committee of Globecom 2002 and the members of IEEE Communications Society in Taiwan, it is my great pleasure to welcome you all to visit the city of Taipei and to attend Globecom 2002, the annual flagship conference of IEEE Communications Society in year 2002, taking place Nov17-21, Sunday through Thursday, at the Taipei International Convention Center. This is the fourth time this conference is held in Asia Pacific Region, following Globecom 1987 at Tokyo, Globecom 1995 at Singapore, Globecom 1998 at Sydney. This is also the first time more than a thousand of researchers, industrial leaders, experts and engineers from all over the world working in the area of communications will get together here on the island of Taiwan. We would like to invite all of you to experience this modern oriental metropolis with hospitality in the Chinese style. We are sure you will find this conference to be an excellent forum for innovation and technical discussions, and a very natural environment for extending friendship and fellowship. Please join us for this very special event. [See web site for more information: http://www.vtc2003spring.org/]

c. IEEE ICON 2003

The 11th IEEE International Conference on Networks (ICON2003) will be held in Sydney, Australia. ICON2003 will provide a forum to discuss recent innovations in computer networks and communications. The conference will include invited speakers, poster presentations and an exhibition, and will consist of two days of tutorials followed by two days of technical presentations. A wireless networking workshop will also precede ICON, with an emphasis on works in progress. We envisage that ICON 2003 will be an exciting event on the networking calendar in 2003, but no conference is stronger than the knowledge and professionalism of the people behind it. Contributions describing original research, surveys and applications are solicited. Topics include all aspects of networking. Your contribution will make IEEE ICON 2003 a successful high quality conference. [See web site for the detail: http://www.ee.unsw.edu.au/~icon/]