

Commemorating Kyushu University Centennial Anniversary

# The 5<sup>th</sup> Asia Telemedicine Symposium

– New Technology – New Challenge –



Date	2011.12.16 (Fri) – 17 (Sat)
Venue	Kyushu University Hospital, Fukuoka, Japan Centennial Hall (Dec 16) Collaboration Research Station (Dec 17)
Registration fee onsite	¥2,000

The symposium aims to systematically spread the new telemedicine system which utilizes high-level IT technology. This system is of great use to expose young doctors to new medical knowledge and to demonstrate the advanced surgical skills with ease over the geographical distance. But this remote communication is only made possible by the collaboration between medical people and engineering staff. Although we meet frequently over the network, it is essential for all of us to meet regularly face-to-face to introduce our activities and discuss our plans for the next year.

**【Host】** Kyushu University Hospital, Telemedicine Development Center of Asia

**【Sponsors and Supporters】** Japan Society for the Promotion of Science "Grant-in-Aid for Scientific Research", APAN-Japan, Kyushu Electric Power Co., Kyushu Economic Federation, Kyushu Island Alliance of ICT, Johnson & Johnson K.K., Olympus Medical System Corp, Office for the Planning and Coordination of International Affairs (OPCIA), Research Institute for Information Technology, Kyushu GigaPOP (QGPOP), Kyushu University Hospital Dept of Medical Information Center, Division of International Medical Relations, Dept of Endoscopic Diagnostics and Therapeutics

# Program (The 1st day)

## Dec 16 (Fri) Day1: Main Hall / Centennial Hall

9:15-10:00	Registration
10:00-10:15	<b>Opening ceremony</b> Opening remarks: Masao Tanaka Kyushu Univ. Hospital, TEMDEC Director Welcome speech: Kotoku Kurachi Kyushu Univ., Executive Vice President Chiharu Kubo Kyushu Univ. Hospital, Director
10:15-11:00	<b>Keynote speech-1</b> Chair: Naoki Nakashima Kyushu Univ. Hospital / Japan <b>"The Tele-healthcare Support from Kagawa for Japanese Residents in Chiang Mai"</b> Hideto Yokoi Medical Informatics, Kagawa Univ. / Japan
11:00-11:45	<b>Keynote speech-2</b> Chair: Masao Tanaka Kyushu Univ. Hospital / Japan <b>"Specialist paediatric health services for patients in remote locations: the role of telemedicine in Australia."</b> Anthony Smith Center for Online Health, The University of Queensland / Australia
11:45-13:00	Lunch (Poster reviews and exhibitions)
13:00-14:00	<b>SIG (Special Interest Group) reports</b> Chairs: Ho-Seong Han Seoul National Univ. Bundang Hospital / Korea Shiaw Hooi Ho Univ. of Malaya / Malaysia <b>1) Remote Medicine</b> Ashir Ahmed Grameen Communications / Bangladesh <b>2) Healthcare</b> Young-Sung Lee Chungbuk National Univ. / Korea <b>3) Transplantation</b> Atsushi Sugitani Fujita Health Univ. / Japan <b>4) Cardiology</b> Fumiaki Ikeno Stanford Univ. / USA
14:00-15:15	<b>Activity reports and coming plans (1)</b> Chairs: Kenjiro Yasuda Kyoto Second Red Cross Hospital / Japan Joon-Soo Hahm Hanyang Univ. Hospital / Korea <b>1) Siriraj MIS (Minimally Invasive Surgery) Activities</b> Thawatchai Akaraviputh Mahidol Univ. / Thailand <b>2) SGI (Society of Gastrointestinal Intervention) 2011 and APAN-Endoscopy</b> Dong-Wan Seo Asan Medical Center / Korea <b>3) Endoscopic Activities in Konkuk University</b> Chan-Sup Shim Konkuk Univ. / Korea <b>4) China-Japan Gastric Cancer Teleconference</b> Yao Fang Peking Union Medical College Hospital / China <b>5) Endoscopic Nurse Teleconference</b> Hisanori Takeuchi Kyushu Univ. Hospital / Japan

See abstracts at <http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/5th-ATS.pdf>

15:15-15:45	Coffee break (Poster reviews and exhibitions) *Presenters are to be at posters for discussion.
15:45-17:00	<p><b>Activity report and coming plans (2)</b></p> <p>Chairs: Giang Binh Tran Viet Duc Hospital / Vietnam Hilvano Serafin UP Manila General Hospital / Philippines</p> <p><b>1) The Role of Information Technology in Present Day Surgery</b> Randy Joseph Fernandez, Hilvano Serafin UP Manila General Hospital / Philippines</p> <p><b>2) Telemedicine in Vietnam</b> Minh Duc Cao VINAREN / Vietnam</p> <p><b>3) Technical support for Kanto LADG (laparoscopy-assisted distal gastrectomy) Meeting</b> Hiroshi Mizushima Tokyo Medical and Dental Univ. / Japan</p> <p><b>4) Telemedicine support in Australia</b> Brett Rosolen AARNET / Australia</p> <p><b>5) Using low cost advanced video streaming for consulting or concurrent training of surgeons in geographically discrete locations</b> Suresh Deshpande, Prashant Apte Indian Association of Gastro-intestinal Endo Surgeons(IAGES) / India</p>
17:00-18:15	<p><b>Collaborations and Future plans with APAN (Asia Pacific Advanced Network)</b></p> <p>Chairs: Hung Ba Ta VINAREN / Vietnam Christopher Khor National Univ. Hospital / Singapore</p> <p><b>1) 32<sup>nd</sup> APAN and medical academic network in India</b> Dipak Singh ERNET / India</p> <p><b>2) Successful connection to Cape Town by DVTS (distal video transport system)</b> Sandie R Thomson Univ. of Cape Town / South Africa (remote)</p> <p><b>3) APDW (Asian Pacific Digestive Week) 2012 and telemedicine</b> Rungsun Rerknimitr Chulalongkorn Univ. / Thailand</p> <p><b>4) IASGO (International Association of Surgeons, Gastroenterologists and Oncologists) 2012 in Thailand</b> Piya Teawpraserta Pramongkutklo Hospital / Thailand Wisit Kasetsermwiriya Bangkok Metropolitan Administration Medical College and Vajira Hospital / Thailand</p> <p><b>5) APAN Medical Working Group Report</b> Shuji Shimizu Kyushu Univ. Hospital / Japan</p>
18:15-18:20	<p><b>Closing remarks</b></p> <p>Shuji Shimizu Kyushu Univ. Hospital / Japan</p>
18:30-20:30	<b>Reception (Hall 1•2)</b>

## Posters

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1

### Development of multilingual personal health record system

Ikuo Tofukuji, Yasuhiro Takeuchi, Sachiyo Mizutani

Takasaki University of Health and Welfare / Japan

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2

### Development of web-VPN based heavy-ion cancer therapy treatment planning viewer

Kota Torikai, Yasuhiro Takeuchi, Seiji Nomura, Munetoshi Ki, Takeshi Otsuka, Akira Numazaki, Tomokazu Yamada, Tomonori Shinkai, Takashi Nakano

Gunma Univ. / Japan

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3

### Appropriate ICT's for delivery of health services in rural areas of Peru : Wiress networking in the Amazonian Rainforest

Paola Sanoni

Tsukuba Univ. / Japan

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4

### Live endoscopic multichannel demonstration using superfast broadband internet connections

Hang Lak Lee, Joon Soo Hahm, Ho Soon Choi, Inwheel Joe

Department of Internal Medicine, Hanyang Univ. Medical Center / Korea

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5

### Learning from live demonstration at 2011 APAN (Asia Pacific Advanced Network)-India

Nen-Chung Chang

Taipei Medical Univ. / Taiwan

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6

### Some issues of the training for young endoscopists in Vietnam

Vinh Thuy Nguyen

E Hospital / Vietnam

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7

### Application of telemedicine in an Ophthalmology Phacoemulsification conference in the Philippines

June Mendiola

Veterans Memorial Medical Center / Philippines

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8

### Global Telemedicine / eHealth Structures and Initiatives

F. Lievens, M. Jordanova

International Society for Telemedicine & eHealth, Switzerland, Med-e-Tel, Belgium

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## Program (The 2nd day)

### Dec 17 (Sat) Day2: Technical Sessions : Collaboration Research Station (Visual and Audio Room)

8:30-9:15	Registration and coffee
9:15-9:45	<b>Demonstration of DVTS and H323 (remote)</b> Chair: Ti-Chuang Chiang      National Taiwan Univ. / Taiwan Speaker: Ken Westermann      Seattle Science Foundation / USA
9:45-10:30	<b>Tutorials-1</b> Chair: Ti-Chuang Chiang      National Taiwan Univ. / Taiwan 1) MCU (Multi-point Control Unit) for H323 and software Polycom Yasuaki Antoku      Kyushu Univ. Hospital / Japan 2) Vidyo Hiroshige Kusumoto      Vidyo, Inc. / Japan 3) HD (high-definition, compressed) streaming and Telepointer Nobuhiro Torata      Kyushu Univ. Hospital / Japan
10:30-10:45	Coffee break
10:45-12:00	<b>Tutorials-2</b> Chairs: Minh Duc Cao      VINAREN / Vietnam Min Hu      Kyushu Univ. / Japan 1) Quatre 1. Basics Seiji Kumagai      Information Services International-Dentsu, Ltd. / Japan 2. How to use Quatre at APAN-JP Yasuichi Kitamura      APAN-JP / Japan 2) DVTS-Plus Bao Congxiao, Wang Weicai      Tsinghua Univ. / China      (remote) 3) VPN setup Koji Okamura      Kyushu Univ. / Japan 4) Technical support on medical activities: Korean experience Sang-Gyun Kim      NIA / Korea
12:00-12:30	<b>Keynote lecture</b> Chair: Yasuichi Kitamura      APAN-JP / Japan <b>DVTS updates</b> Kazunori Sugiura      Keio Univ. / Japan
12:30-13:30	Lunch and group photo
13:30-14:30	<b>New member institutions</b> Chairs: Kiyohito Tanaka      Kyoto Second Red Cross Hospital / Japan Au Tung Shing Albert      Univ. of Hong Kong / China 1) Zhongshan Hospital Chen Weifeng      China 2) Kanazawa Univ. Takayuki Hama      Japan 3) Westmead Hospital Glenn Munro      Australia 4) Royal Brisbane Hospital James Bishop      Australia

## Program (The 2nd day)

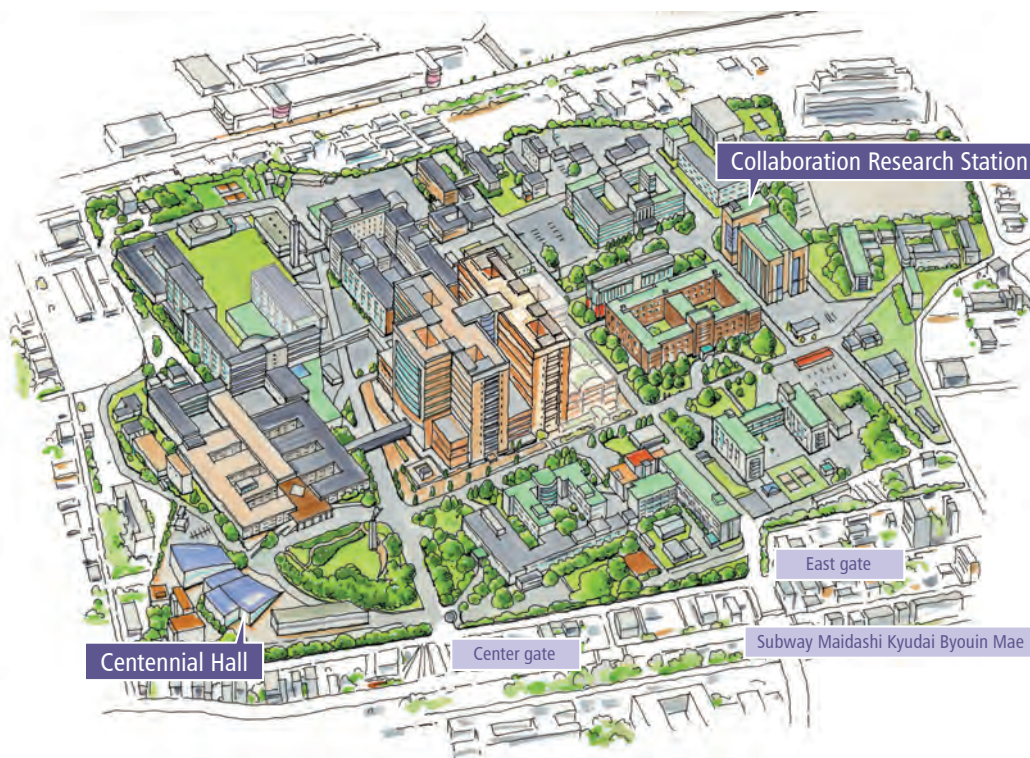
See abstracts at <http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/5th-ATS.pdf>

14:30-15:30	<b>Member updates (1)</b> Chairs: Jung-Hun Lee      Seoul National Univ. Bundang Hospital / Korea Kuriko Kudo      Kyushu Univ. Hospital / Japan  1) Univ. of Tokushima Battulga Bayanmunkh      Japan  2) Chulalongkorn Univ. Pornarong Chotiwan      Thailand  3) Univ. of Malaya Mohamad Zahir Ahmad      Malaysia
15:30-16:00	<b>Coffee break</b>
16:00-17:00	<b>Member updates (2)</b> Chairs: Ni Thanh Le      Cho Ray Hospital / Vietnam Dipak Singh      ERNET / India  1) Viet Duc Hospital Dinh Cong Nguyen      Vietnam  2) #108 Hospital Quy Vuong Le      Vietnam  3) Institute of Liver and Biliary Sciences Dinesh Kumar Taneja      India      (remote)  4) Asian Institute of Gastroenterology Ungarala Satyanarayana      India      (remote)
17:00-18:00	<b>Member updates (3)</b> Chairs: Nobuhiro Torata      Kyushu Univ. Hospital / Japan Basuki Suhardiman      Institute Technology Bandung / Indonesia  1) Preginet Bani Lara      Advanced Science and Technology Institute / Philippines  2) Univ. of Indonesia Aria Kekalih      Univ. of Indonesia / Indonesia      (remote)  3) CESNET and Czech medical community as active partners in telemedicine Jiri Navratil      CESNET / Czech  4) Network updates Jin Tanaka      KDDI / Japan
18:00-	<b>Closing</b> <b>Secretariat announcement</b> Yoko Noda      Kyushu Univ. Hospital / Japan



## ▣ Venue Information

Kyushu University Hospital, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812-8582  
Subway Maidashi Kyudai Byouin Mae about 10 min walk



Centennial Hall



Collaboration Research Station

- 【Registration】** Send your following information to the secretariat below.  
Name, Institution and Dept, Title, Mail address, Phone number  
Japanese: [http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/Registration\\_Form\\_JP.docx](http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/Registration_Form_JP.docx)  
English: [http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/Registration\\_Form.doc](http://www.temdec.med.kyushu-u.ac.jp/html/katsudo/ATS/2011ATS/Registration_Form.doc)
- 【Secretariat】** Ms. Yoko Noda: Telemedicine Development Center of Asia  
Kyushu University Hospital Fukuoka 812-8582, Japan  
Email: [n-youko@endosc.med.kyushu-u.ac.jp](mailto:n-youko@endosc.med.kyushu-u.ac.jp) Tel & Fax: +81-92-642-5014

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# The 5<sup>th</sup> Asia Telemedicine Symposium

## Registration Form

Name	
Country	
Institution/Company	
Department	
Position/Title	
Office address	
Office phone number	
Office fax number	
Mobile phone number	
Email address	
MS messenger address or Skype (If available)	
Dinner	Dec. 16      Yes / No Dec. 17      Yes / No
Special dietary requests	
Planned hotel name	

Tel& Fax +81-92-642-5087

E-mail : n-youko@tem.med.kyushu-u.ac.jp



## 第5回 アジア遠隔医療シンポジウム

### 参加登録

氏名(漢字)	
氏名(ローマ字)	
施設名/会社名	
所属	
役職	
勤務先住所	〒
勤務先電話番号	
勤務先 FAX 番号	
携帯電話	
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お申し込み先：

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Masao Tanaka  
**(Kyushu Univ. Hospital, TEMDEC Director)**



Kotoku Kurachi  
**(Kyushu Univ., Executive Vice President)**



Chiharu Kubo  
**(Kyushu Univ. Hospital, Director)**



## Naoki Nakashima

### Biography :

Naoki Nakashima MD PhD is an associate professor in the Medical Information Center / the chief of the international medical relations office in Kyushu University Hospital. He has been a specialist of diabetes mellitus for 20 years and simultaneously worked as a specialist of medical informatics for 10 years. He is a councilor member of Japanese Society of Diabetes Mellitus and the director of the scientific committee of Japan Association for Medical Informatics. He focuses on the disease management methodology to prevent lifestyle-related diseases and complications. He has organized the "Carna project" which aims to establish a Japanese model for disease management of diabetes mellitus from primary to tertiary prevention as a social system.

He is also a founding member of "Telemedical Development Center of Asia (TEMDEC)" in Kyushu University which promotes a broad band telemedical network in Asia Pacific area. TEMDEC is the most active institute for international telemedicine in Asia-Pacific area.



## Hideto Yokoi

### Biography :

Hideto Yokoi, M.D. Ph.D. is an expert on medical informatics. Dr. Yokoi, is Professor and Director of Medical Informatics Department at Kagawa University, Kagawa, Japan. Dr. Yokoi's background in medicine is digestive organ. With his specialty, Dr. Yokoi is joining some international standardization activities of medical information, especially concerning endoscopy of digestive tract.

Kagawa prefecture has high motivation to establish telemedicine network. Kagawa Medical Internet Exchange (K-MIX) is a sign of the fruits, which enables physicians to share the information and communicate with each other. Dr. Yokoi and some physicians in Kagawa University started the support of resident Japanese in Chiang Mai one year ago based on the know-how on K-MIX, and since then the supporting system has been going on between Kagawa University and Chiang Mai University.

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## Anthony Smith

### Biography :

Dr Anthony Smith is an Associate Professor and Deputy Director of the University of Queensland's Centre for Online Health (COH) at the Royal Children's Hospital (RCH).

Dr Smith has more than a decade of research experience based on investigations of new telemedicine applications for the benefit of clinicians and patients in regional and remote areas of Queensland.

Specific research interests include the evaluation of feasibility, cost-effectiveness and diagnostic accuracy of telemedicine applications in the context of paediatrics and child health.

Dr Smith is the scientific program chair of the International Successes and Failures in Telehealth (SFT) conference held annually in Australia since 2001; the inaugural Queensland representative of the Australasian Telehealth Society, and an Associate Editor for the BMC Health Services Research journal.

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### Abstract :

In November 2000, the Centre for Online Health, (University of Queensland) commenced a research project aimed at establishing and evaluating a novel telepaediatric service in Queensland.<sup>1-3</sup> The telepaediatric service is characterized by a centralized coordination unit, responsible for the facilitation of telepaediatric referrals.

The telepaediatric service has evolved into a major clinical support programme at the Royal Children's Hospital - which directly benefits children, their families and the clinicians delivering services. More than 12, 500

consultations have been conducted for thousands of children in Queensland. The telepaediatric service covers 37 different sub-specialist areas, including burns, dermatology, ENT, neurology, orthopaedics, psychiatry and surgery. To date, telepaediatric services have been delivered to 97 regional hospitals in Queensland, several facilities in northern NSW, Western Australia and the Northern Territory.

The telepaediatric service has proven valuable for selected regional hospitals in Queensland. Our research has demonstrated substantial savings for the health department due to reduced patient travel<sup>4</sup>; benefits for regional families who are saved the inconvenience and costs of travel away from home<sup>6</sup>, improved communication and collaboration between regional hospital staff and specialists at tertiary hospitals; and valuable opportunities for professional education and support in remote areas which traditionally are underserved. <sup>7</sup>

This presentation will provide a broad overview of telepaediatrics in Queensland. Aspects such as feasibility and cost-effectiveness will be addressed.



## Ho-Seong Han

### Biography :

Dr. Ho-Seong Han graduated from Seoul National University College of Medicine in 1984, and finished internship and residency of department of Surgery at Seoul National Hospital in 1989. He became associate professor and the chairman of department of Surgery at Ewha Womans University Hospital from 1993 to 2003. The present position is the chairman of department of surgery in Seoul National University Bundang Hospital. He is a leading surgeon in the field of hepatobiliary surgery and laparoscopic surgery. He also has interest in telemedicine and tele-live surgery and performed many tele-live surgery.



## Shiaw Hooi Ho

### Biography :

Dr. Shiaw-Hooi Ho is a Senior Lecturer in the Department of Medicine, University of Malaya. Dr. Ho graduated from University of Science in Malaysia in 2001. He then went on to train in internal medicine and obtained a Master's Degree in Internal Medicine from University of Malaya in 2009. He is currently working in the Gastroenterology and Hepatology Unit under Professor Dr. K.L. Goh in University of Malaya Medical Centre (UMMC).

Dr. Ho has a keen interest in GI therapeutic endoscopy and image-enhanced endoscopy. He received the JSGE (Japanese Society of Gastroenterology) Research Fellowship Award in 2010 and underwent training in the National Center for Global Health and Medicine in Tokyo under Dr. Takuji Gotoda. He is one of the key coordinators in setting up telemedicine in UMMC which has been actively participating in teleconferences organized by the APAN medical group over the last few years.



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## Ashir Ahmed

### Biography :

Ashir Ahmed is an associate professor at the department of advanced information technology in Kyushu University, Japan and director of GCC project in Grameen Communications, Bangladesh. His research aims to produce and promote ICT based social services for the unreached community in the world. In 2007, he joined Kyushu University as a guest associate professor under the research superstar program by Japan Science and Technology Agency. Through this program, he developed a joint collaboration with Grameen and Kyushu University and produced numerous international projects e.g. GramWeb (a village information platform), ePassbook (an electronic gadget for unreached community), \$300 portable clinic and IGPF (Income Generation Project for Farmers using ICT). Inside Kyushu University, he developed a team of multi-disciplinary researchers which ultimately produced two research organizations e.g. GCL (Grameen Creative Lab) and GTL (Grameen Technology Lab) in 2009. In 2011, a social business research institute has been established in the university. He is also a core contributor to establish Grameen Yukiguni Maitake Ltd, an agriculture based social business in Bangladesh. In 2003 to 2006, Ashir worked for NTT Communications to develop SIP based applications for home electronic devices and represented NTT Communications in International forum namely IETF to standardize NTT's technology. In 2000-2002, he worked as an MTS1 in Avaya Labs, Japan to R&D Avaya's SIP based products for Japanese market. Ashir was a visiting researcher at JGN (Japan Gigabit Network) project under the Telecommunication Advancement Organization and successfully setup regional TAO office in Sendai, Japan. Ashir received his Ph.D. in Information Sciences from Tohoku University in 1999.

### Abstract :

Title: Reaching Unreached Patients through Portable Clinics

Ashir Ahmed, Mustafa Hossain, Takuzo Ohsugi

Rural hospitals in developing countries are the minority due to their unprofitability and inability to attract a sufficient number of doctors. This situation contributes to the fact that 69% of the world population has inadequate access to medical care. This paper describes the research at Kyushu University and Grameen to reach the unreached through our primary health checkup booths (US\$3,000 for 9 checkup modules) and portable clinics (US\$300 per unit). The portable clinics are developed for operation by local women in Bangladesh as a pilot project. Both the portable clinic and health checkup booth have connectivity with the central database where medical experts can advise the remote patients online. The project will bring high quality healthcare to the village unreached patients.



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## Young-Sung Lee

### Biography :

Young Sung Lee, M.D., Ph.D., has been leading MedRIC (Medical Research Information Center), a Ministry of Education, Science and Technology funded organization in S. Korea, focusing on research and development in medical informatics, medical data visualization, telematics, Virtual Reality-based medical training, and health communication and promotion policies and programs. Dr. Lee is Professor, College of Medicine, Chungbuk National University, and has a concurrent office as Director, Division of Cancer Epidemiology and Management, National Cancer Center, taking charge of cancer control policy and management at national level. He is also currently serving as a board member of the Korean Society of Medical Informatics. He was a visiting scholar at Stanford University Medical Media and Information Technology, and was a member of Committee on Infrastructure Technologies, National Science and Technology Council, the Nation's highest decision making body on science and technology policies under the President of Republic of Korea.



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## Atsushi Sugitani

### Biography :

Dr. Atsushi Sugitani, M.D., PhD is a transplant surgeon who has been working for the kidney and pancreas transplantation. With an attempt to expand the organ network in the Asian area, he has been working on the transplant bioethics as well using the High-speed teleconference system. So far, connecting the Asian countries such as Korea, China, Thailand, Vietnam, Taiwan and Singapore, we presented the video of the operation, discussed the legal and ethical issue using this system.

Dr. Sugitani is a professor at the Department of Organ transplantation and Regenerative medicine, Fujita Health University, Aichi prefecture, JAPAN.



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## Fumiaki Ikeno

### Biography :

Dr. Fumiaki Ikeno is a trained interventional cardiologist and has several years experience with human subjects in Japan. He also has numerous years here at Stanford performing catheter based interventions (percutaneous and surgical access, vascular cannulation, peripheral and coronary angiography, balloon angioplasty/PTCA, valvuloplasty, thrombectomy, embolization, thrombolysis, biopsy, ablation, peripheral and coronary stent placement, fractional flow reserve, intravascular ultrasound, optical coherence tomography, atherectomy, echocardiography, cellular/gene delivery, NOGA mapping, infarct model development, LVH model, coronary and peripheral stenosis model, thermal injury) as well as cardiothoracic surgery, euthanasia and all tissue harvest procedures utilizing thousands of swine. His main focus of research is about medical device development, regenerative medicine and analysis of clinical trials in cardiovascular fields. He is also in charge of preclinical study and first-in-man study in medical device developments process. Currently, he serves as a member of Japan - U.S. "Harmonization By Doing" HBD Pilot Program Initiative, Working Group-1 which is the collaborative projects including government, industry and academia in both countries. He also serves as a member & organizer of Working Group: Medical; Cardiovascular; in APAN (the Asia-Pacific Advanced Network) which is national projects in Asia to establish the academic optic fiber network. He is a consulting associate professor of Osaka University (Japan) and an advisor of Kyusyu University (Japan) in California Office for teaching activity. He graduated from Jichi Medical School (Japan) in 1992. He serves as a clinician for 9 years including rural area in Japan before moving to USA. He finished Graduate Student, Biodesign Certificate Program, Stanford University in 2007.

### Abstract :

The various possibility of telemedicine for cardiovascular intervention  
Fumiaki Ikeno, MD, Cardiovascular Medicine, Stanford University

The cardiovascular intervention was started in 1977 by Andreas Gruentzig, to make this procedure more common, he selected the live transmission educational method. Currently, we continue doing this educational activity in each country. However, the technology of devices for interventional cardiology is now progressing very rapidly and we think this kind of educational activity is necessary between different countries.

In APAN 2011 meeting, we had the 1st teleconference among Asian Pacific countries with experiences interventional cardiologists. We will continue discussing various possibility of telemedicine for the cardiovascular interventional education in this 5th ATS conference in Fukuoka.





## Kenjiro Yasuda

### Biography :

Dr. Kenjiro Yasuda graduated from Kyoto Prefectural University of Medicine in Kyoto, Japan in 1978. He is working at Department of Gastroenterology, Kyoto Second Red Cross Hospital and he is Director of Dept. of Gastroenterology from 2000.

His special field is diagnostic and therapeutic endoscopy, especially in bilio-pancreatic systems, and he also has clinical and research interest in GI endoscopy. However, his biggest highlights and achievement are on the development and distribution of endoscopic ultrasonography (EUS). He has started clinical uses of EUS from the first development of this method in 1981 as a pioneer of EUS. Since then, he has worked for the improvement of EUS systems and wide spreading of clinical applications of EUS. He is an honorary member of ASGE and co-editor of "Endoscopy".

Now, he still enjoys diagnostic and therapeutic endoscopy, and gardening and aquarium.



## Joon-Soo Hahm

### Biography :

Dr. Joonsoo Hahm, M.D. Ph.D. is a physician and a gastroenterologist, majoring in endoscopy (Gastrointestinal) and pancreatobiliary diseases. Dr Hahm works for many Korean Society, he worked as a president of Korean Society of Pancreatobiliary Diseases and president of Korean Society of Gastrointestinal. He also works in the project of telemedicine which started between Korea-Japan in 2002. He is a pioneer in telemedicine in Korea and has been trying to expand the infrastructures in Korea. Dr. Hahm is Professor of Medicine and Director of Digestive Disease Center at Hanyang University, Seoul, Korea. Dr Hahm is currently Endoscopy and now a president of Korean Society of Gastroenterology and also serve as a director of Seongsan Center for Bioethics.



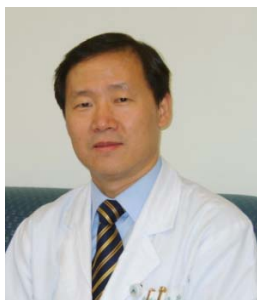
## Thawatchai Akaraviputh

### Biography :

Dr. Thawatchai Akaraviputh, Minimally Invasive Surgery Unit, Department of Surgery, Faculty of Medicine Siriraj Hospital.

Dr. Thawatchai Akaraviputh is a lecturer of the Department of Surgery, Siriraj Hospital and an endo-laparoscopic surgeon. He received his undergraduate degree and surgical training from Mahidol University, Bangkok, Thailand. In 1999 he received Germany Academic Exchange Service (DAAD) Scholarship. He completed a postdoctoral fellowship in advanced surgical endoscopy and obtained "Doktors der Medizin" degree with Professor Nib Soehendra at University Hospital Eppendorf, Hamburg, Germany. He returned to Bangkok in 2002, where he continued his training in laparoscopic surgery and subsequently in robotic surgery. He was promoted to Associate Professor in 2008. He has many international publications in a variety of endoscopic and laparoscopic surgery.







## Dong-Wan Seo

### Biography :

Dr. Dong Wan Seo is one of the best endoscopists you can find in the Asian-Pacific region. His specialty is pancreatico-biliary endoscopy and EUS. He has created a lot of advanced endoscopy works to the World of GI Endoscopy including his own classification of cholangioscopic reading, EUS-guided treatment of pancreatic cystic tumors. His current position is a Professor of Department of Gastroenterology, University of Ulsan College of Medicine, Asan Medical Center which is the largest teaching hospital in South Korea. Dr. Seo is also serving as a chairperson of Endoscopy Teleconference Session in APAN meeting and scientific committee of SGI meeting. He is working as an active member in variety of national & international societies including KSGE, KSG, SGI, ASGE and NOSCARG. He is also serving as an international editorial board member of Gastrointestinal Endoscopy.

 [Slide1\(PDF\)](#)  
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## Chan-Sup Shim

### Biography :

Dr. Chan Sup Shim has been a leading endoscopist in Korea since the late of 1980s and has contributed to the development of the field of endoscopy on the international or regional level. He is now in full activity as (1) director, Digestive Disease Center, Konkuk University Medical Center, (2) president, Korean Society of Photodynamic Therapy, (3) regular member, National Academy of Medicine of Korea, (4) International editor for the official journal of European Society of Gastrointestinal Endoscopy, Editorial Board, (5) International Editor, International Advisory Board of Journal of Digestive Endoscopy, (6) Editorial Board, International Editorial Board of Visible Human Journal of Endoscopy (VHJOE), (7) Reviewer, American Society of Gastrointestinal Endoscopy, (8) Fellowship, American Society for Gastrointestinal Endoscopy, (9) American Gastroenterological Association Fellow, (10) Honorary Membership Honorary Member, American Society of Gastrointestinal Endoscopy.

Dr. Shim opened the new endoscopy center - Glocal Digestive Disease Center - and performed international workshop "The cutting edge of Endoscopic Ultrasonography(EUS), Contrast-Enhanced Ultrasonography(CEUS), and Ultrasonography(US)" for the celebration of opening of new endoscopy center on 9th~10th, July 2011. With the real-time transmission of live demonstration and keynote lecture from 6 countries to glocal digestive disease center in Konkuk University Medical Center via Academic Research Network.

His recent interesting fields are developing of new stents for GI malignancy, benign stricture, and stent's for pancreatic pseudocyst, cholangiocarcinoma, and GB cancer and also developing academic research network.

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### Abstract :

Significance of gastrointestinal teleconference with collaborating institutes; our experience from both small casual meetings and large formal meetings

Chan Sup Shim MD, Tae Yoon Lee MD, Young Koog Cheon MD, Sun-Young Lee MD, Sun-Young Han PhD  
Glocal Digestive Disease Center, Konkuk University Medical Center, Seoul, Korea

Telemedicine is of great use and cost-effective for gastrointestinal endoscopists' continuing exposure to both new knowledge and advanced skills. Due to its high quality and low cost, teleconference using research and education network and digital video transport system (DVTS) is useful for both small casual meetings and large formal meetings. Since February 2010, our digestive disease center have performed nine regular Korea-Singapore-Japan (KSJ) international teleconferences covering gastrointestinal endoscopic case reports with 4 hospitals in Korea, Japan and Singapore every 2 months with 10-20 doctors at each station. On July 9 and 10, 2011, we had the international workshop with 300 audiences regarding endoscopic ultrasonography, contrast-enhanced/conventional ultrasonography in our hospital. There was real-time transmission of live demonstration from 6 countries including USA, Taiwan, Japan, China, Korea, and India using DVTS via academic network. The quality of transmitted video image and sound was generally good but several minor problems such as some short disconnections, a little bad room view in quality due to camera quality, significant echo, and some routing problem. However these problems will be solved to have another exciting meeting. We will continue and expand the multiple international broadcasting of the live demonstration, lectures and international congress through academic network.



## Yao Fang

### Biography :

Dr. Yao Fang, MD., is an Associate Professor of Department of Gastroenterology of Peking Union Medical College Hospital (PUMCH), China. She is both an enterologist and endoscopist with good skill in almost all kinds of endoscopic procedures (ME, EMR, ESD, ERCP, EUS etc.) Her department is now in charge of a national project on improving the diagnosis and treatment of early gastric cancer in China. In order to improve the diagnosis and treatment level of EGC in China through APAN, a joint project started in 2010 between PUMCH and Kyushu University Hospital. Being the window person, she gave her great efforts to spread telemedicine and improve the management of EGC in China.



### Abstract :

Establishment of remote education system for endoscopic detection of early gastric cancer between Japan and China via APAN

Lu Xinghua, Yang Aiming, Yao Fang, Wu Xi

During the second year of our joint research project of establishing remote education system for endoscopic detection of early gastric cancer via APAN between Peking Union Medical College Hospital (PUMCH) and Kyushu University Hospital, we further expanded the usage of remote education system and kept on improving its efficiency for endoscopic detection and treatment .

This year we held two teleconferences with four connecting stations between endoscopists and pathologists both in Japan and China on Jan. 18<sup>th</sup> and on July 20<sup>th</sup>. We successfully first invited Zhongshan Hospital of Fudan university in Shanghai as the second connected station of China besides PUMCH. The contents included case discussion and remote lectures. Now, we have a moving marker on the monitor, which was developed recently, to point out our target on pictures to the other stations easily. And the quality of pictures is improved as well, however, sometimes we have to moderate the brightness or contrast of each pathologic picture (virtual slide) to get a better transmitting quality. And there was a long-time disconnection of signal on Jan. 18<sup>th</sup> and also a short-time one on July 20<sup>th</sup> .

Further on, in order to expand the use of APAN on other endoscopic educating fields, we also gave a live demonstration of EUS procedure through APAN to Konkuk University Hospital on July 9<sup>th</sup>. The quality of real-time transmitting image is acceptable although there is a slight sound delay.

Next year we're going to have more live demonstrations of endoscopic diagnosis and treatment for early gastric cancer, and to explore the further usage of APAN on other clinic fields. But there's still a long way to go before we could talk through internet as freely as face to face. The better stability and higher quality of video and audio signals will be the key points for utility.



## Hisanori Takeuchi

### Biography :

Ns. Takeuchi works at Kyushu University Hospital and belongs to the Endoscopic Department. He is really interested in international collaborations in the field of nursing. He has started nurse teleconference activity since June 2011 and has conducted conferences with four countries so far. He works for exchanging information between nurses and hopes to expand it to many other countries.



### Abstract :

We wanted to know how endoscopic nursing was performed not only in Japan but also in other countries and if we could exchange our nursing skills with other hospitals. So we started teleconference with facilities abroad using Internet. We have conducted nurse teleconferences with Malaya Medical Centre in Malaysia, The Royal Brisbane and Women's Hospital in Australia, King Chulalongkorn Memorial Hospital in Thailand, and National University Hospital Singapore in Singapore. The themes were about endoscopic facilities, the way how to be engaged with the examinations or procedures, the preparations for gastric and colon endoscopy, and about the nursing of the patient with sedation and so on. Through this activity, we could introduce our endoscopic nursing to other countries and know how it is done in other countries. We could exchange variety of information and would like to continue this activity for long time. We also hope to expand this activity to other fields of nursing in our hospital based on our fruitful experiences.



## Binh Tran Giang

### Biography :

Dr TRAN BINH GIANG, M.D., Ph.D. graduated from Hanoi Medical University in 1985. After that he followed post-graduate study in France (1990 in hospital COCHIN, Universite Paris VI, 1995 in Universite Nice-Antipolis), in Australia (2000 North Sydney University), in Singapore (2002 Singapore General hospital). His speciality is majoring in laparoscopic surgery. Dr Tran BINH GIANG is Associate Professor at Hanoi Medical University, Chief of Department of General surgery, Director of laparoscopic center and Deputy Director of Vietduc University hospital. Dr TRAN BINH GIANG is currently President of VAES ( Vietnam association of endolaparoscopic surgeons). He is also member of Board of Governor of ELSA (Endoscopic and laparoscopic surgeons of Asia) and chairman of the organizing committee of 10th Meeting of ALSA in Hanoi (ELSA2010VIETNAM).



## Hilvano Serafin

### Biography :

Serafin C. Hilvano, MD, FPCS, FACS, ASA(Hon), Professor of Surgery, University of the Philippines Manila, acknowledged pioneer in Endoscopic and Laparoscopic Surgery in the Philippines, founded the Philippine Association of Endoscopic Surgeons, member of the core group which formed the Endoscopic and Laparoscopic Surgeons of Asia, eventually becoming its President in 2001. Formed the Asian Society of HepatoBiliaryPancreatic Surgery, together with Prof. Tadahiro Takada and Prof. Chen Guo Ker and organizing the 8th and final congress in 2005 before it became APHPBA. Accomplished setting up the IT infrastructure of the University of the Philippines Manila (UPM), while being Chair, UPM IT Council and it is for this reason that UPM was able to participate actively in the teleconferencing of the MWG of APAN, February, 2010, right in its campus.

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## Randy Joseph Fernandez

### Biography :

Randy is a graduate of Electronics and Communications Engineering from UP Diliman and is currently taking up a master's degree in Electrical Engineering from the same institution. He is also a software developer in the UP Manila National Telehealth Center and has worked with various projects on mobile and web-based applications.

### Abstract :

As the Philippines' health sciences center, UP Manila conducts researches about the country's health problems and organizes services aimed for the marginalized sectors. In addition, the University has satellite campuses in remote areas across the country and counts the National Institutes of Health and the Philippine General Hospital among its internal units. The vast intellectual wealth and broad experience places the University at a great advantage in hosting health conferences for the country. UP Manila is the Philippine partner of TEMDEC and, for two years now, has participated in its videoconferences. Over this period, the University was able to increase the number of personnel able to provide technical support through training and informal lectures. In addition, UP Manila implemented its own version of the telerounds system. This allowed the residents to directly interact with patients in the wards, while still making the consultants available using videoconferencing.





## Minh Duc Cao

### Biography :

Cao Duc Minh is a computer engineer, currently working in Vietnam research and education network centre which was established in 2007. His main job is network management, manage and support member's activities. With experience in the field of audio-visual, he is currently involved in organizing of telemedicine in Vietnam, under the role as a member of medical working group of APAN. He is also an IT engineer at Vietnam National *Agency* for Science and Technology Information, working as a computer systems manager, organizing activities in science and technology.

### Abstract :

Telemedicine has been mentioned and carrying out in Vietnam since 2006. So far, we have achieved some success as well as certain difficulties. The development of science and technology, changes in the medical activity, the growth of the international medical community, led us to reconsider plans to develop Telemedicine in the near future. The evaluation of the strengths and weaknesses, find out the challenges to face while developing Telemedicine will hopefully benefit not only Vietnam but also in other developing countries.



## Hiroshi Mizushima

### Biography :

Dr. Hiroshi MIZUSHIMA, Ph.D. is currently chief senior researcher at National Institute of Public Health(NIPH), working for international aspects of rare disease. He initialized telemedicine project among cancer centers in Japan in 1993. He has been operating Cancer Center Network and international telemedicine projects to USA and European countries, and took part in the establishment of Asia Pacific Advanced Network (APAN) in 1997 and became co-chair of Medical Working Group. In 2006, he moved to Omics Project at Tokyo Medical and Dental University(TMD), and became Professor at 2009. He also supported telemedicine project at TMD including LADG project. In 2011, he moved to NIPH for international public health projects.

### Abstract :

Telemedicine System for Kanto LADG (Laparoscopy-Assisted Distal Gastrectomy) Meeting.

Isao OKADA, Kazuyuki KOJIMA, Hiroshi MIZUSHIMA (Tokyo Medical and Dental University, Tokyo JAPAN)

Kanto Laparoscopy-Assisted Distal Gastrectomy (LADG) meeting was established in 2002 for exchanging up-to-date information. We have been organizing local meeting once or twice a year with attendance of about 200 doctors. In April 2008, we first tried DVTS connection with Seoul National University.

Our system consists of Remote controllable Local Cameras, audio and video mixers, PCs, video titler, DV-NTSC converter, and interpreter system. We will talk about history, future and other Telemedicine activities in Japan.



## Brett Rosolen

### Biography :

Brett Rosolen is AARNet's eResearch Technical Manager. His role is to the develop and evangelise bleeding edge collaboration solutions that capitalise on the enhanced delivery possible over the high capacity network available to the academic and research sector.



## Suresh Deshpande

### Biography :

M.S.( General Surgery,1983)

F.C.P.S.( General Surgery,1984)

D.Ortho.(1981)

F.I.C.S.(1984)

F.I.A.G.E.S.(2007)

Consulting General And Orthopedic Surgery, at Swarup laparoscopy, Endourology & orthopedic institute



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## Prashant Apte

### Biography :

Using low cost advanced video streaming for consulting or concurrent training of surgeons in geographically discrete locations

A Case Study by Dr. Suresh Deshpande and Prashant Apte.

It has been observed that inexperienced surgeons (especially in non-metros) do not have access to viewing a wide range of surgeries, severely impacting their ability/confidence to conduct non-trivial surgeries.

We used the" LapGuru" video streaming framework to assess its feasibility to address the problem of remote training and mentoring of surgeons. LapGuru is a low cost solution that requires minimal infrastructure (computer with broadband connection) to transmit or view the live/on-demand surgeries. We also used in-built features such as audio/text Infospots (expert comments in audio/text format linked to a video position). The markspot feature was used to mark specific parts of the anatomy that helped in ease of identification.

LapGuru has also been used by an expert surgeon to mentor a remotely situated inexperienced surgeon throughout his surgery with a marker (markspot) & audio (infospot), not only in laparoscopy but also in open operations.

We are confident that this solution will create a revolution of sorts and help not just the medical fraternity but the common man in the near future.



## Hung Ba Ta

### Biography :

Dr. Ta Ba Hung, Ph.D. is information scientist, majoring in library and information sciences. Actually Dr. Hung works more in promotion of high performance network applications, including video conferencing and DTVS between leading hospitals, support implementing JICA sponsored Project for Improvement of human resources in medical services system in Vietnam.

Dr. Ta Ba Hung is Director General of the National Agency for Science and Technology Information (NASATI) and in charge for development of the National Research and Education Network of Vietnam (VinaREN).





## Christopher Khor

### Biography :

Dr Christopher Jen Lock Khor

MBBS, FRCP(Edin), FAMS

Senior Consultant, Department of Gastroenterology & Hepatology ; Deputy Clinical Director, Endoscopy Centre

National University Hospital, Singapore

Dr Christopher Khor attended medical school at the National University of Singapore, and went on to train in Internal Medicine and then in Gastroenterology in Singapore. After completing an Advanced Endoscopy Fellowship majoring in ERCP at the Medical University of South Carolina, he moved to Indiana University Medical Center for further training in Endoscopic Ultrasound. More recently, he completed extended clinical attachments in ESD at the National Cancer Center Hospital in Tokyo, and at Kobe University.

Dr Khor's main practice areas are in general gastroenterology, therapeutic endoscopy and pancreato-biliary disease. His areas of clinical and research interest are in Endoscopic Ultrasound, ERCP, Therapeutic Endoscopy, Endoscopic Submucosal Dissection. He has a keen interest in endoscopic training and education, serves regularly as faculty in regional endoscopy meetings, and is president of the Gastroenterological Society of Singapore.



## Dipak Singh

### Biography :

Dipak Singh is Director in ERNET India. He heads network operations in ERNET. He had obtained Master degree in Applied Physics from Calcutta University and had overall 25 years of experience in IT related activity. He had played great role in expansion of ERNET. His major contribution in ERNET has been upgradation of ERNET Backbone, upgradation of network infrastructure, deployment of MPLS in ERNET backbone, Internal & external routing, Deployment of IPv6 testbed in ERNET, High-speed communication fabric for Indian grid GARUDA. Mr Dipak Singh also represented ERNET India in European Commission(EC) funded projects. Mr Singh is representing ERNET in APAN and played active role of in connecting India to Trans Eurasia Informaion Network(TEIN3).

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### Abstract :

#### 2nd APAN Meeting & Medical Academic Network

ERNET, the NREN of India is primary member of Asia Pacific Advance Network(APAN). 32nd APAN meeting was hosted by ERNET along with National Knowledge Network(NKN) at New Delhi. In the presentation, the arrangement for high speed networking requirement at APAN meeting venue will be made.

National Knowledge Network is being rolled out in India. This network is connecting academic and research institutes in India. After introduction to National Knowledge Network, connectivity to be provided to medical academic institutes in India will be presented.



## Sandie R Thomson

### Biography :

Professor Sandie Thomson is a surgical gastroenterologist with an hepatobiliary and interventional endoscopy background. He holds the Chair of Gastroenterology at the University of Cape Town and is lead WGO member on the Tele Education Project in conjunction with Professor Shimizu.



## Rungsun Rerknimitr

### Biography :

Rungsun Rerknimitr, MD

Professor of Medicine

General Secretary of GI Endoscopy Excellence Center, Department Medicine, Chulalongkorn University

Rungsun Rerknimitr graduated from Chulalongkorn University with honor. He obtained his American Board of Internal Medicine from Rush Medical College, Chicago in 1996. Later, he pursued his Gastroenterology fellowship from Louisiana State University in New Orleans. Before he returned to Thailand, he obtained ERCP fellowship from Indiana University. He is currently a general secretary of GI Endoscopy Excellence Center at Chulalongkorn University, Bangkok Thailand. His current academic position is a Professor of Medicine. He is also a founding member of the Thai Association of Gastrointestinal Endoscopy and also a past chief editor of the Thai Journal of Gastroenterology. His main endoscopic interest is therapeutic ERCP for hepatobiliary system and pancreas with a special interest in metallic stent clinical application.

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## Piya Teawpraserta

### Biography :



## Wisit Kasetsermwiriya

### Biography :

Dr. Wisit Kasetsermwiriya, M.D is a Thai surgeon who is a visiting fellow at Department of Surgery I, Kyushu University, From 2011 to 2012. He graduated from Faculty of Medicine, Siriraj Hospital and working at Bangkok Metropolitan Administration Medical College and Vajira Hospital. His major is Laparoscopic and endoscopic surgery.

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## Shuji Shimizu

### Biography :

Dr. Shuji Shimizu, M.D. Ph.D. is surgeon, majoring in endoscopic surgery, which is sometimes called “keyhole operation” and is patient-friendly. But currently Dr Shimizu works more in the project of telemedicine which started between Korea-Japan in 2002. This project is now wide-spread in Asia-Pacific regions and is extending into Europe and USA. Dr. Shimizu is Associate Professor of Department of Endoscopic Diagnostics and Therapeutics and Deputy Director of Telemedicine Development Center of Asia at Kyushu University, Fukuoka, Japan. Dr Shimizu is currently co-chairperson of medical working group of APAN, and an executive committee member of International Association of Surgeons, Gastroenterologists and Oncologists, serving as chairman of telemedicine to connect worldwide centers of continuous medical education.



 [Poster\(PDF\)](#)

## Ikuo Tofukuji

### Biography :

Dr. Ikuo Tofukuji, Ph.D. is a professor of Department of Healthcare Informatics, Faculty of Health and Welfare, Takasaki University of Health and Welfare, majoring social application of information technologies for telemedicine and healthcare, especially interested in telepathology and personal health record system.

Dr. Tofukuji is a director and secretary in chief of Japanese Telemedicine and Telecare Association, holds the post of the President of Gunma Medical ICT Council that is promoting to construct and evaluate the multilingual personal healthcare support system and heavy ion therapy collaboration network in Gunma Prefecture since 2012.

### Abstract :

Development of Multilingual Personal Health Record System

Ikuo Tofukuji\*, Yasuhiro Takeuchi\*\*, Sachiyo Mizutani\*\*\*

\*Takasaki University of Health and Welfare, \*\* NPO Gunma Congress Support, \*\*\* klar Co., Ltd.

Japan has four laws for public healthcare corresponding to the life stage. However there is no linkage among them. In Gunma 2.4% of inhabitants are foreigners, so that easy access to healthcare services is necessary for them.

We developed a personal health record system named “Gunma Health Support (GHS)” based on the web-technologies which provides in multiple languages; English, Chinese, Portuguese and Spanish. This project was funded by 2010FY budget of Ministry of Internal Affairs and Communications.

GHS accepted paper based health-checkup forms, coded their disease history and medical examination items manually, and uploaded into the server. GHS members may access their own health records via the internet anytime and anywhere.

We recruited 303 my-page members however it is too small number to sustain the GHS. We are planning to solve it by group registration next year.



## Kota Torikai

### Biography :

Dr. Kota Torikai, Ph.D. is medical physicist, majoring especially in accelerator and medical informatics heavy-ion cancer therapy. Dr. Torikai's team developed integrated radiotherapy information system (IRIS) and DICOM-Encompassed Physical and Medical Communication System (DELPHI). Dr. Torikai is Associate Professor of Medical Informatics in Advanced Scientific Research Leader Development Unit / Gunma University Heavy-ion Medical Center (GHMC) in Gunma University. Dr. Torikai specialized in radiation therapy and extensively working in telemedicine collaborating with radiation oncology. Dr. Torikai actively working in Japan Society of Medical Physics (JSMP) and Japan Society for Therapeutic Radiology and Oncology (JASTRO).

### Abstract :

Development of Web-VPN Based Heavy-ion Cancer Therapy Treatment Planning Viewer

Kota Torikai \*, Yasuhiro Takeuchi\*\*, Seiji Nomura\*\*\*, Munetoshi Ki\*\*\*, Takeshi Otsuka\*\*\*, Akira Numazaki\*\*\*, Tomokazu Yamada\*\*\*, Tomonori Shinkai\*\*\*, and Takashi Nakano\*

\*Gunma University, \*\* NPO Gunma Congress Support, \*\*\* Konica Minolta Healthcare co.

The number of cancer patients has been increasing, and almost 1million people will suffer cancer annually during 2025. A carbon ion therapy has opportunity to cure some kind of "surgery-difficult case" and malignant tumors. The information from the treatment planning system (TPS) is important for follow-up of the patients; however, there was no tool for sharing the information of the TPS

We developed a heavy-ion treatment planning viewer system, which supports the DICOM-RT format, utilizing the USB-key-implemented VPN secure connection. 9 hospitals at Maebashi and Takasaki City in Gunma Prefecture are joined in 2010, and 10 examples of pilot study are executed.



## Paola Sanoni

### Biography :

I'm Peruvian, 33 years old currently living in Japan. MA International Relations (2012) from The University of Tsukuba, B Arts & Humanities (1998) and BBA (2002) from the Pontifical Catholic University of Peru (PUCP), I dedicate to work in projects of ICT for supporting rural sector from 2003. My research interest is related to ICTs for the delivery of health services, comparative health policy, social impact of e-health processes, Telehealth and health policy in rural areas of developing countries. My most recent publication is *Public health policy reform and the sustainability of ICTs projects in rural areas of Peru* (to be printed by Elsevier 2012). In 2010, I worked on *Wireless networking for rural environments* ©2010 Second edition. I'm also a research partner for The Group of Rural Telecommunications (GTR-PUCP) from 2006 and collaborator of Fundación EHAS (Hispano-American Health Link), two recognized institutions for their work on Telehealth in Latin America.



### Abstract :

Appropriate ICT's developed to support the delivery of health care services in rural areas of Peru. Experience from the Amazonian Rainforest.

Considering the difficulties of remote locations such as geographical isolation, high cost of transportation, unavailability of pavement roads, unpredictable climate conditions, impossibility of immediate patient referral, lack of professional personnel in-situ and logistic limitations, Telehealth offers a solution to improve health delivery services for vulnerable populations in rural and isolated areas. This presentation aims to introduce the EHAS-Napo Project in Region Loreto, in the basin of the Napo river, in the Amazonia of Peru. The main objective of The EHAS-Napo project in Peru is to provide connectivity services for primary health attention of rural populations. The project connects 18 health facilities in the Amazon, from the Regional Hospital in Iquitos (Loreto) up until Cabo Pantoja in the north east frontier between Peru and Ecuador. This infrastructure of telecommunications has a longitude of over 500km through the deep forest. Connectivity is provided by using WiLD technology (WiFi IEEE 802.11 modified for Long Distance) and offers services such as VoIP, telephony, videoconferencing, reporting, image diagnosis and real time stethoscope, chat and Internet access for several purposes related to e-Healthcare: tele-consultation, tele-diagnosis, tele-treatment, health information management, emergency coordination, drugs dispatch and logistics.



## Hang Lak Lee

### Biography :

Dr. HangLak Lee, M.D. Ph.D. is gastroenterologist, majoring in endoscopic surgery including endoscopic submucosal dissection and NOTES. Dr. HangLak Lee is Associated Professor of Department of Gastroenterology at Hanyang University, Seoul, Korea.



### Abstract :

Live endoscopic multichannel demonstration using superfast broadband internet connections

Hang Lak Lee, M.D., Joon Soo Hahm, M.D., Ho Soon Choi, M.D., Inwhee Joe, PhD\*,

Department of Internal Medicine, Hanyang University Medical Center, Seoul, Korea

Department of Computer Science & Engineering, Hanyang University, Seoul, Korea

Background and study aims: Telecommunication technology has advanced since 2002 when the submarine cable network was established between Korea and Japan. Our experiences in telemedicine including telesurgery and telepathology has developed gradually with good achievements in diagnosis and treatment of various diseases. We have been trying to expand our infrastructures throughout Korea and other countries. In this study, we reviews our recent applications and results of our telemedical activities.

Patients and methods: Eighteen domestic medical centers are connected directly and indirectly using KOREN, and several institutes are also linked with KREONET. Live demonstrations has been simultaneously performed between 4 stations through Quatro system. Maximally 12 stations were joined live endoscopic demonstration regularly with physicians and surgeons to show ESD and ERCP, etc. DVTS, polycom and other software based tools were used to transmit live demonstration with an assistance of engineers.

Results: The Data were successfully transmitted uncompressed, high-resolution, digital lectures with endoscopy video during a multichannel endoscopic live demonstration of ESD and ERCP over multiple advanced networks. The overall satisfaction rating when the endoscopic lecture demonstration was performed by combining DVTS was 'Good' in 68% of the participants, and 'Very Good' in 22%.

Conclusions: We believe that a multicenter-based live endoscopic demonstration is a very effective conferencing method when using advanced networks and DVTS.



## Nen-Chung Chang

### Biography :

Dr. Nen-Chung Chang, MD, PhD., is cardiologist, majoring in interventional cardiology. But currently Dr Chang works more in the medical educations. Dr Chang is Full Professor of Internal Medicine, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan. Dr Chang is currently Vice-dean of College of Medicine and Chairman of Department of Internal Medicine.



### Abstract :

Learning from live demonstration at 2011 APAN-India

Nen-Chung Chang<sup>1,4</sup>, Po-Li Wei<sup>2,5</sup>, Ti-Chuang Chiang<sup>7</sup>, Chii-Ruey Tzeng<sup>3,6</sup>

Department of Internal Medicine<sup>1</sup>, Department of Surgery<sup>2</sup>, Department of Obstetrics and Gynecology<sup>3</sup>, School of Medicine, College of Medicine, Taipei Medical University; Division of Cardiology, Department of Internal Medicine<sup>4</sup>, Division of General Surgery, Department of Surgery<sup>5</sup>, Department of Obstetrics and Gynecology<sup>6</sup>, Taipei Medical University Hospital; Medical Informatics Division<sup>7</sup>, College of Medicine, National Taiwan University, Taipei, Taiwan

We have joined as one of the 7 stations of live surgery session on August 26, 2011 in 2011 APAN-India. The session topic was laparoscopic colo-rectal surgery. DVTS with bandwidth about 30Mbps was used. Images from multiple stations were controlled by Quatro, located at APAN-Japan. Twenty doctors from Taipei Medical University Hospital,



Department of Surgery attended this live demonstration. We performed the satisfaction survey at the end of this course. Final results of the end course questionnaire: learning efficiency, 4.78 points, image quality, 3.8 points and two-way communication, 4.4 points. The full score was 5.0 points. One hundred percent (20/20) of participants hoped to attend this event again and 80 percent (16/20) of participants hoped telemedicine teaching course held monthly. The remaining 4 of 20 (20%) hope this teaching course is held bi-monthly. Conclusion: Telemedicine teaching courses allow doctors experiencing cost-effective, team learning and as an alternative teaching modality.



## Nguyen Thuy Vinh

### Biography :

Dr. Nguyen Thuy Vinh is Vice director of E Central Hospital, Hanoi, Vietnam. She is President of Vietnamese Federation for Digestive Endoscopy (VFDE), and Permanent Member of the Vietnam Association of Gastroenterology committee. Dr Vinh earned her medical degree (graduating with distinction) from the Odessa Medical College, the former Soviet Union, in 1986; she subsequently trained in internal medicine and gastroenterology. She earned her master of medicine degree from the University of Sydney, Sydney, Australia, in 1998, and her PhD from the Military Medical Institute, Hanoi, Vietnam, in 2004. Dr Vinh's research interests encompass H pylori infection and related disease, the impact of antibiotic resistance on H pylori eradication therapy, functional gastrointestinal disorders and magnifying chromoendoscopy. Her extensive work on these topics has been published in numerous local and international journals.

### Abstract :

#### SOME ISSUES OF THE TRAINING FOR YOUNG ENDOSCOPISTS IN VIETNAM

Việt Nam is the developing country with the great demand in medical care. Endoscopy plays very importance role in diagnosis and treatment of many diseases. However, training for the young endoscopists, especially in gastroenterology in our countries has some difficulties to be solved. Firstly, lack of nationwide training programs, teaching materials, textbook for endoscopy. Secondly, inadequate attention for training for the trainers. Thirdly, due to socio-economic factors, there is little opportunity for young doctor to study in a big endoscopy training center with modern equipments and high technique medical procedures. Therefore, in order to overcome these difficulties, the Vietnamese Federation of Digestive Endoscopy has been established and has strategies to standardize the training programs for the trainees and the trainers and to promote international cooperation and research. The cooperation in telemedicine and the Program for East Asian Young Researchers has created great opportunities for young endoscopists in Vietnam for their specialized training in endoscopy.



## June Mendiola

### Biography :

June Mendiola, MD is the Head of the Dept. of Ophthalmology of the Veterans Memorial Medical Center in the Philippines. He graduated from the Univ. of Sto Tomas, Faculty of Medicine and Surgery. He is a diplomate of the Phil. Board of Ophthalmology, Philippine Academy of Ophthalmology and Philippine Society of Cataract and Refractive Surgery.



### [Poster\(PDF\)](#)

### Abstract :

Title : Application of telemedicine in an Ophthalmology Phacoemulsification conference in the Philippines

The Veterans Memorial Medical Center hosted the monthly inter-hospital Phacoemulsification conference under the Philippine Society of Cataract and Refractive Surgery last Oct 26, 2011. For the first time, it utilized DVTS to bring surgical education to training ophthalmologists of the country. Videoconferencing was also employed during the event with a "three-way" inter-hospital communication between Kyushu University Hospital in Japan, Veterans Memorial Medical Center and the Philippine Heart Center. Those who were unable to go the place were able to view the event through live video-streaming.





## Frank Lievens

### Biography :

Born 02.03.1944 in Ghent - Belgium.

Master in Economic and Diplomatic Sciences (1967) I.C.H.E.C. - Brussels (Belgium)

Managing Director of

- LIEVENS-LANCKMAN BVBA (Belgium)

- AKROMED FRANCE (France)

companies involved in manufacturing and distribution of Medical Devices, having a worldwide network.



### Poster(PDF)

Director of MED-e-TEL in Luxembourg Board member, Secretary and Treasurer of the ISfTeH

Back in 1999, got interested in Telemedicine via Home Care applications.

Was involved in the creation of MED-e-TEL,

the International Educational & Networking Forum for eHealth, Telemedicine & Health ICT,

taking place yearly in Luxembourg and acts as its International Coordinator.

Was elected to the Board of the ISfTeH (International Society for Telemedicine & eHealth) in September 2003 as Treasurer, and re-elected in December 2007 as Secretary-Treasurer.

As such, has been attending many Telemedicine Conferences and Events in various countries :Albania, Argentina, Armenia, Australia, Austria, Belgium, Bosnia & Herzegovina, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Hungary, India, Israel, Italy, Kenya, Luxembourg, Macedonia, Malaysia, Nigeria, Norway, Poland, Romania, Russia, Slovenia, South Africa, Spain, Sweden, Switzerland, The Netherlands, U.A.E., U.K., Ukraine, U.S.A..

Presentations on the Global Vision about Telemedicine/ eHealth were made in : Abu Dhabi, Abuja, Antwerp, Bangalore, Berlin, Bhubaneswar, Brisbane, Brussels, Budapest, Cairo, Cape Town, Chandigarh, Chennai, Copenhagen, Dubai, Durban, Donetsk, Fiuggi, Guanzhou, Hvar, Iasi, Joensuu, Kuala Lumpur, Kunming, London, Luxembourg, Lyon, Mangalia, Montreal, Moscow, Mumbai, Nairobi, New Delhi, Ottawa, Parana, Paris, Perth, Pune, Rabat, Sao Paulo, Sarajevo, Saratov, Skopje, Sofia, Tarusa, Tirana, Tromsö, Vienna, Warsaw, Yerevan, Zagreb.

### Abstract :

Global Telemedicine/eHealth Structures and Initiatives

F. Lievens<sup>1,2</sup>, M. Jordanova<sup>4,5</sup>

<sup>1</sup>Board Member and Secretary, International Society for Telemedicine & eHealth, Switzerland

<sup>2</sup>Director Med-e-Tel, Belgium, lievens@skynet.be

<sup>3</sup>Coordinator Educational Program Med-e-Tel, Bulgaria, mjordan@bas.bg

<sup>4</sup>Space and Solar-Terrestrial Research Institute, Bulgarian Academy of Sciences, Bulgaria

The presentation will outline in brief the implementation of Telemedicine/eHealth worldwide and then will focus on the role of two international initiatives - the International Society for Telemedicine and eHealth (ISfTeH, <http://www.isfteh.org>) and The International Educational and Networking Forum for eHealth, Telemedicine and Health ICT (Med-e-Tel, [www.medetel.eu](http://www.medetel.eu)) as well as on their contribution for the global application of Telemedicine/eHealth. Revealing various aspects of ISfTeH and Med-e-Tel activities (educational, networking, business, etc.) the authors will illustrate how these two international initiatives are supporting medical and ICT specialist. Special attention will be dedicated to networking, the strategic goal of both ISfTeH and Med-e-Tel for more than a decade, and its significance for providing high quality expertise and for mobilizing resources, if and when needed.

[122]

Area of interest

\*Activity report

\*Attractive programs

\*Expected events or future plans

\*Network updates



## Ken Westermann

### Biography :

Ken Westermann spent 20 years working in the film and television industry. He began his career working for a video production company in Stuttgart Germany, then joined the industry in Los Angeles California and finally settled into a position as a television broadcast engineer in Seattle Washington. In 2009 Ken joined the Seattle Science Foundation to bring his broadcasting experience to the medical arena.



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### Abstract :

The Seattle Science Foundation is dedicated to fostering collaborations on the ongoing education of doctors and medical technicians throughout the world. In our facility we have a lecture hall, a dry lab and a full scale bioskills lab for hands on training. We connect globally through ip teleconferencing, internet 2, webstreaming and occasional satellite uplinks.

What we would like to propose for the 5th Asia Telemedicine Symposium is a comparative simulcast of these technologies. We will perform some live procedure from our bioskills lab and simulcast it to Kyushu via DVTS (i2) and ip teleconferencing as well as offering a webstreaming option for those in attendance who wish to compare that as well.

We would ask that Kyushu have a dual display available, one for the DVTS stream and one for the ip teleconferencing stream.



## Ti-Chuang Chiang

### Biography :

Mr. Ti-Chuang Chiang, B.Sc. is Senior Technician, majoring in Medical Physic. He took 21 years to serve at Department of Radiotherapy, National Taiwan University Hospital. 9 years ago, he transfers to Division of Medical Informatics, College of Medicine, NTU. Education Technology became his major interesting. There are many medical distant learning and Telemedicine's project at NTU was supported with his IT skill. Mr. Chiang is currently at International Medical Physics Certification Board, serving as Secretary/Treasurer to assist the international medical community in achieving both performance excellence and contributions to health care.



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## Yasuaki Antoku

### Biography :

Yasuaki Antoku is an engineer at Kyushu University Hospital in Japan. He majored in Information Engineering for his Bachelor's degree, and in Design Engineering for his Master's. He is chiefly involved in the management and operation of the computer network at Kyushu University Hospital. He is one of the members of the Medical Information department at the hospital. Moreover, he is participating in Telemedicine activity as one of the local engineers at Kyushu University.



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## Hiroshige Kusumoto

### Biography :

Hiroshige Kusumoto joined Vidyo in May, 2008 and is country manager of Japan. Prior to Vidyo, Hiroshige was president of a US export company to the Ministry of Defense in Japan and country manager for Tandberg Japan. Prior Tandberg, Hiroshige was employed by KDDI, a leading global carrier in Japan. Hiroshige received a BA in Economics from Aoyama Gakuin University in Japan and studied at Master's Degree program in Public Administration from George Washington University in the US.



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## Nobuhiro Torata

### Biography :

Mr. Torata is a staff of department of surgery 1 at Kyushu University Hospital and work as medical engineer at operation theater / surgical ward. He was previously involved in the telemedicine activity since middle of 2006, APAN Singapore and obtained the approval for the appointment as a member of TEMDEC which established for these activities in 2008. He too, coordinate Local setup part ( Audio and Visual ) with other engineers.



## Chakaphan Sookcharoen

### Biography :

Mr. Chakaphan Sookcharoen, Senior Network Engineer, Information of Technology Center, Faculty of Medicine, Chulalongkorn University, Bangkok Thailand, Mr. Chakaphan is currently member of medical working group of APAN and technical of telemedicine to connect national medical education, which started in the project of telemedicine experiment of Asia Broadband Program between Thailand-Japan in 2005, Which is sometimes works on audio and video visual for streaming live broadcast and Teleconference on WANCA (Workshop on UniNet Network and Computer Application)



**Seiji Kumagai**

**Biography :**

Chief Research Scientist of Open Innovation Laboratory, ISID  
(Information Services International Dentsu, Ltd.)

He received Bachelor of Engineering degree in electrical engineering from Kyoto Institute of Technology in 1978. From 1978 to 1987, he developed Micro-computer system and UNIX based system. He joined System Development and Consulting Dept. of ISID in 1987. He worked as a Consultant of Networking, UNIX, Internet, Security and Messaging System. Currently he is a Chief Research Scientist of Open Innovation Laboratory of ISID. His research interests is information sharing, multimedia communication and Indoor Positioning System.



**Abstract :**

We developed high quality multipoint digital video conference system called QualImage/ Quatre. In this session, talks about system configuration, function, structure, and usage.



**Yasuichi Kitamura**

**Biography :**

Dr. Yasuichi Kitamura, ED, Ph.D. is the researcher, majoring in Internet communication technology. He is the researcher of the National Institute of Information and Communications Technology (NICT) since 1989 and is one of the engineers at the Asia-Pacific Advanced Network (APAN) since 1997. He has been working for getting the high performance communication real with using the network monitoring technology. At APAN Tokyo XP, two multipoint communication units were set at Tokyo XP on April this year and these units have been supporting the research activities of TEMEC and APAN medical WG.



**Abstract :**

Title: Tutorial: Instructions of using Quatre

Author: Yasuichi Kitamura (kita@jp.apan.net)

Quatre is the multiple connection unit for the DVTS. This tutorial has two parts. One is for those who just want to use Quatre. Another one is for those who want to install Quatre at their institutions. To use Quatre, if they have the experiences of accessing some websites and of establishing the connection of DVTS once or more, they can easily set up the virtual conference room in Quatre. But, for installing Quatre, they must have the experiences of installing Linux base OSes and of controlling the security functions of OSes. This tutorial will also show how the Quatre at APAN Tokyo XP always gets the attacks from the outside and propose some security solutions for those operators even if they are not the experts of the OS security technologies.



**Bao Congxiao**

**Biography :**

Congxiao Bao is an Associate Professor in Tsinghua University, working for China Education and Research Network. Her research interests include networking architecture, multicast and network video applications. Since 2005, she is active in global collaboration of telemedicine in China to promote the activities both as an ISP and end-users.





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## Koji Okamura

### Biography :

Prof. Koji OKAMURA graduated from Graduate School of Computer Science and Communication Engineering from Kyushu University, Japan in 1990.

After some carries at an company in Japan and Graduate School of Information Science, Nara Institute of Science and Technology, Japan and Computer Center, Kobe University, Japan as a Research Associate, he got Ph.D. Degree from Graduate School of Information Science and Electrical Engineering, Kyushu University, Japan in 1998. He worked as an Associate Professor of Computer Center and Graduate School of Information Science and Electrical Engineering, Kyushu University, Japan for 13 years. Since 2011, he has been a Professor of Kyushu University.

Current his research interests are advanced operation technologies for Internet and Future Internet such as Openflow and Virtual Network. He is also researching Power-aware network operation and developing Green power network equipment system. He has contributed introduction of the new technologies into actual campus network of Kyushu University. He has worked for Next generation network technologies and its applications such as very huge multimedia transportation over very high speed Internet. He has also done so many academic case studies using future oriented Internet and applications for future tele-medical education etc.



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## Sang-Gyun Kim

### Biography :

Mr. Sanggyun Kim is a principal researcher at Digital Infrastructure Division in NIA(National Information society Agency). His role is responsible for administration of KOREN NOC. He has recently been promoting technical supporting and coordinating KOREN users for collaborative research within domestic and international research and education network communities.

He was involved in many collaborative research projects including global demonstrations based several applications like medical and conferencing areas. He also participated in the international RnE network event as KOREN's representative.

Sanggyun has a master degree of Management Information System from Hankuk University of Foreign Studies as well as 9 years of experience in the RnE network research community.



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## Kazunori Sugiura

### Biography :

Kazunori Sugiura, received his Ph.D in Keio University, has been working on development of Internet and distributed computer technology. His major contribution is a development of real-time high quality network video conferencing system called DVTS (Digital Video Transport System). Most of his contributions based on streaming architecture are now used in world-wide basis: Internet2 in U.S., SOI ASIA (School on Internet) project, etc. He is an active researcher in WIDE Project. He is currently an associate professor in Keio University Graduate School of Media Design (KMD) where he leads a team of over 20 researchers and students on a Real Project.





## Kiyohito Tanaka

### Biography :

Dr. Kiyohito Tanaka, MD. is endoscopist for gastorointestinal endoscopy and pancreatobiliary endoscope. And he works at chief information officer in Kyoto Second Red Cross Hospital (K2RCH). In K2RCH, international tele-conference and live demonstration were performed over 10 times by year.



## Au Tung Shing Albert

### Biography :

Mr. Albert Au, M.Sc. M.Phil. MIET is Senior I.T. Manager in the Faculty of Medicine, The University of Hong Kong. He has been worked in the University for 15 years. He has more than 10 years experience in telemedicine. Many methods have been employed in telemedicine including microwave, free space optics, fibre optics, and internet. Mr Au leads a team of 8 persons to provide technical support for the Medical Faculty. Currently, Mr Au works more in the projects of audio-visual systems and web-based applications.



## Chen Weifeng

### Biography :

Dr. Chen Weifeng, M.D. is surgeon, majoring in endoscopic surgery. Dr. Chen is attending doctor of Department of Surgical Endocopy and General Surgery at Zhongshan Hospital, Fudan University, Shanghai, China. Dr. Chen helped to establish the DVTs system in Zhongshan Hospital and successfully hold 5 telemedicine meetings.



### Abstract :

I will introduce the system setup in our hospital including the network situation, some activities after the system setup, and the future with DVTs. I will also briefly introduce our hospital and our future plan.



## Takayuki Hama

### Biography :

Takayuki Hama is computer network and systems engineer. He obtained M. Ed. in Physics at Aichi University of Education. He became a technical staff at Institute of Science and Technology, Kanazawa University. He supported screening tests and interviews of national scholarship research students that introduced a video communication system in 2007 and 2008. He is now working on web application development, administration of computer systems and network design of the university.



### Abstract :

In February 2011, Kanazawa University joined to the project of TEMDEC for the first time. After that its campus network system named KAINS has been replaced with new security system and modern topology. As a result, it improved network latency and throughput, and also contributed to better quality of DVTs communication.

In this presentation, our new campus network system will be described, and the results of implementation of DVTs communication will be reported.





Glenn Munro

**Biography :**

I started my career in Pathology managing an Anatomical Pathology/Cytology laboratory at Nepean Hospital on the outskirts of Sydney.

An audiovisual department evolved out of the laboratory as we were to support clinical education when Nepean Hospital became a teaching institution.

In 1996 is started the Multimedia Department at Nepean Hospital which provided video production, live narrow casting of surgical procedures, graphic design, medical illustration and medical photography.

In 2005 my role expanded to manage the multimedia services to the larger Westmead Hospital and 10 other hospitals in the region.

I have a particular interest in improving the front end production quality of telemedicine to reflect the standards we see in the television broadcast industry.



**Abstract :**

Plans for the: The Sydney International Endoscopy Symposium March 2012

I intend to give an outline of the plan we have for upcoming conference in March 2012. I wish to mainly deal with the front end of the production starting with the choice of endoscope right through to the choice of projector at the venue. I will be discussing the unique audio design we came up with that has developed over the years as a result of solving problems of feedback and bad microphone technique.

I will be discussing the difficulties of synchronizing 4 procedure room at once to achieve smooth change over so that the audience can keep up with what is going on.

One of the features that gained the most favourable comments at the 2010 conference was the HD resolution the audience was witnessing at the venue using the 2 screen technique instead of picture in picture.

I will show how we achieved that resolution as well as options we are looking at for linking to from the hospital to the venue some 25klms away.



James Bishop

**Biography :**

James Bishop is an audio visual engineer with over 25 years experience in the audio visual and events industry. James is currently employed as Multimedia Coordinator by Queensland Health for the Clinical Skills Development Service in Brisbane, Australia. His role in this position is to support the simulation division of Queensland Health with the implementation of developing, installing and commissioning small form factor audio visual systems and information technology to support the role out of more than 80 Pocket Simulation Centres over the next few years. James is also the Technical Director for the Gastroenterology Society of Australia (GESA) and supports the society with annual conferences and the National Endoscopy Training Initiative (NETI) Workshops. These include live procedure transmission and training across Australia.



**Abstract :**

EUS Symposium Logistics, new pathways for Queensland Health

**EUS Symposium.**

Despite a complex and versatile network topology within QLD Health, obstacles were presented while trying to manage a multi - signal link between two adjoining buildings and several thousand kilometres of Fibre optic and copper cables. This paper describes the introduction of the AARNET Network within QLD Health and the Information Technology and Audio Visual equipment used to manage the signal integrity and distribution for the EUS Symposium. The future benefits from the initial network installation include Campus wide connectivity and integration into the Telehealth division of QLD Health which currently boasts 1000 Videoconference sites state - wide.

**AGW2011.**

The annual AGW Conference performs live endoscopy/colonoscopy procedures to industry professionals every 2 years. This brief addendum describes the equipment and logistics to provide two days of procedures to audiences members of 600 plus by some of the leading Australian and guest international Gastroenterologists.



## Jung-Hun Lee

### Biography :

Mr. Junghun Lee is network engineer for tele-medical activities which include tele-conference and tele-live-Surgery in Seoul National University Bundang Hospital, Korea. Currently works in the telemedicine project which started in 2004. This project makes Seoul National University Bundang Hospital as the most advanced group of in telemedicine in Korea and Asia-Pacific regions as well. These activities are collaborated with many distinguished centers in Europe and USA. Mr. Junghun Lee is currently member of medical working group of APAN and play a key role in medical working group of Korea. He work for Professor Ho-Seong Han, M.D. Ph.D, who is co-chairman in Asian Telemedical Working group. He is well renowned surgeon, majoring in HBP surgery and currently Chairman of Department of Surgery in Seoul National University Bundang Hospital and also a director of Cancer Center in this hospital.



## Kuriko Kudo

### Biography :

Kuriko Kudo, Ph. D studied virtual human representation by using 3DCG and animatoronics at Kyushu University Graduate School of Design Genda Lab. Her major is digital archiving focused on Japanese traditional performing arts such as kabuki (especially its make-up). She used the 3DCG system to represent faces of kabuki actors and replicas, based on physical measuring and modeling that accounts for human motion, human shape, lighting, and the spectral reflectance of cosmetics. After she presented her work several times, including at the "Great Robot Exhibition" at the National Museum of Nature and Science Tokyo and SIGGRAPH 2008, she receive a doctorate in design. Since August 2011, she has worked as an engineer at the Telemedicine Development Center of Asia in Kyushu University Hospital.



## Battulga Bayanmunkh

### Biography :

Doctoral Student of Medical Informatics, the University of Tokushima Graduate School.  
 Deputy Director of Mongolian Association of Medical Informatics.  
 2008 - Doctoral Course of Medical Informatics, the University of Tokushima Graduate School.  
 2005 - 2008. Dean of Information Technology Center. Health Sciences University of Mongolia.  
 2003 - 2005. Department of Medical Education. Health Sciences University of Mongolia.  
 2002 - 2004. Master degree. Health Sciences University of Mongolia.  
 1995 - 2001. Medical doctor. Health Sciences University of Mongolia.



### Abstract :

The effectiveness of 3DCG for distance education via satellite network between Mongolia and Japan

Battulga Bayanmunkh 1, Takeshi Konishi 1, Tatsuya Okada 2, Ken-ichiro Shimai 3, Hideki Uehara 1, Yoko Tamura 1, Masato Tagi 4, Yu Tamaki 4, Tomiaki Morikawa 4, Tserenkhuu Lkhagvasuren 5, Hiroki Moriguchi 3,

1Dep. of Medical Informatics, the University of Tokushima Graduate School, Japan

2Pasona Tech, Inc, Japan.

3Dep. of Medical informatics, Institute of Health Biosciences, The University of Tokushima Graduate School, Japan

4Hospital Information Center, Tokushima University Hospital, Japan

5Health Sciences University of Mongolia, Mongolia

Medical students have difficulties in achieving a conceptual understanding of three-dimensional (3D) anatomy and

movement. Three-dimensional computer graphics (3DCG) can provide interactive visual information to the users. Researchers work to apply the advantages of 3DCG to medical education. In this study, we made 3DCG shoulder model and the web-based learning system via satellite network. Participants were divided to 'Text and Image group' and '3DCG group'. The Text and Image group used the text and image materials. On the other hand, the 3DCG group was trained to use the interactive 3DCG shoulder model in addition to the text and images. We also implemented a questionnaire survey and compared between two groups. Our results show that the interactive 3DCG is more effective than only text and images in medical education, and could increase the motivation of students.



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### **Pornarong Chotiwan M.D.**

#### **Biography :**

Current position is Deputy Director of Information Technology Center, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand. His main responsible is Telemedicine and Computer Network system of the faculty. He appointed head of computer center of King Chulalongkorn Memorial Hospital, a 1500 beds hospital of Thai Red Cross Society, for more than 10 years. He is also head of computer center of Faculty of Medicine for almost 20 years, responsible to a network of more than 5000 nodes scattered around more than 50 buildings in the campus. In academic field, he is an Assistant Professor in Department of Preventive and Social Medicine.



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### **Mohamad Zahir Ahmad**

#### **Biography :**

Mohamad Zahir Ahmad is a Senior Information Technology Officer, managing the Network and IT Infrastructure for the University Malaya Medical Center. Activey involved in Teleconferencing for the University Malaya from 2010 and become the coordinator for Teleconferencing activity for the University of Malaya. He led a Telemedicine team to assist the surgeon, gastroenterologist, oncologist and doctors to plan, manage and coordinate the Teleconferencing activities.

#### **Abstract :**

University Of Malaya (UOM) is the pioneer university in Malaysia is producing a highly demand medical doctor for the country. The university is highly emphasize on the research and education for the country.

UM was actively involved in APAN meeting from 2006 and in 2011 more than 10 session for APAN medical group meeting is conducted. We expect to learn more from rest and to keep improving on our teleconference activity to lead the telemedicine project in Malaysia by 2015.



### **Ni Thanh Le**

#### **Biography :**

Bio: Le Thanh Ni, MD. graduated from a Medical University in Bulgaria. He is working at Cho Ray Hospital since 1991 as a physician of internal medicine and infectious diseases. While was a deputy of general planning department and also the head of the hospital information system, he was the key person in establishment of Cho Ray Hospital information system. Since 2009, he involved in the activities of telemedicine development in Vietnam by Professor Shimizu and Kyushu University. Currently, as head of department of media and clinical skills lab of Cho Ray Hospital and also a member of the Consultative Group for telemedicine development of the Ministry of Health of Vietnam, he is actively taken telemedicine into the continuous medical training programs of the hospitals in southern Vietnam.



## Dipak Singh

### Biography :

Dipak Singh is Director in ERNET India. He heads network operations in ERNET. He had obtained Master degree in Applied Physics from Calcutta University and had overall 25 years of experience in IT related activity. He had played great role in expansion of ERNET. His major contribution in ERNET has been upgradation of ERNET Backbone, upgradation of network infrastructure, deployment of MPLS in ERNET backbone, Internal & external routing, Deployment of IPv6 testbed in ERNET, High-speed communication fabric for Indian grid GARUDA. Mr Dipak Singh also represented ERNET India in European Commission(EC) funded projects. Mr Singh is representing ERNET in APAN and played active role of in connecting India to Trans Eurasia Informaion Network(TEIN3).



## Dinh Cong Nguyen

### Biography :

Mr Nguyen Cong Dinh is a IT Engineer, Managing the network in Viet Duc Hospital. He is one of great interest and favourite the activities of Telemedicine.

He has participated several times in the Telemedicine at Viet duc hospital with the role of main engineer, Technical support for Video-conference.

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### Abstract :

- introduce Viet Duc Hospital participating in Telemedicine
- results from Telemedicine



## Quy Vuong Le

### Biography :

Le Vuong Quy (Mr.) is a local IT and audio-visual engineer of Science, technology and environment Department – 108 Military Central Hospital. He is one of great interest and favors the activities of Telemedicine. He wants to bring his knowledge of technology to serve the doctor's examination. He has participated several times in the Telemedicine at 108 hospital with the role of main engineer. Ex: 28th APAN, 29th APAN, 9th GI endoscopy Live Demonstration....

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### Abstract :

- introduce 108 Military Central Hospital participating in Telemedicine
- Techniques are applied to Telemedicine: advantages and disadvantages
- the development direction for the future Telemedicine conference at the 108 Military Central Hospital



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## Dinesh Kumar Taneja

### Biography :

Dinesh Taneja, M.E. (Computers Technology and Applications) is a professional with 19 years of rich experience in spearheading and managing the IT/ Telecom operations for large-scale organizations. He is an IT infrastructure architect, strategist & implementer with demonstrated abilities in the implementation of IT infrastructure and new technology for streamlining IT related operations. He is presently working at Institute of Liver and Biliary Sciences, New Delhi, India as Sr. manager IT to assist the medical community for telemedicine and related activities.



## Rakhi Maiwall

### Biography :

Dr Rakhi Maiwall who is currently working at Institute of Liver and Biliary Sciences as an assistant professor in Hepatology has done her DM in gastroenterology from Christian Medical College Vellore. She is working with an excellent academic record in undergraduate and postgraduate training(gold medal),research-oriented and very scientific in her approach. She is efficient and compassionate in patient care with capability and skills of performing both upper and lower GI diagnostic and therapeutic procedures with an exposure to ERCPs. She is presently working in project of telemedicine at ILBS, Delhi .



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## Ungarala Satyanarayana

### Biography :

Mr Satyanarayana U, a Post Graduate in Business Management from Indira Gandhi University, Andhra Pradesh, India. Working with Asian Institute of Gastroenterology since 1989 and taking care of all administrative activities related to Patient Care Services. Though he is not a technically qualified person, by observing his keen interests in Telemedicine technology, the management of Asian Institute of Gastroenterology made him responsible in organizing around 30 National and 15 International Live G I Workshops.





Basuki Suhardiman

Biography :



Bani Lara

Biography :



Bani Lara, a science research specialist at the Advanced Science and Technology Institute (ASTI), leads the network operations group of the Philippine Research Education and Government Information Network. He has five years of experience working on Internet routing, IPv6 and multicast technologies on the Philippine's research and education network. He also takes care of the routing infrastructure of the Philippine Open Internet Exchange.

He has been one of the Philippines' representatives to international network conferences such as APAN, AI3/SOI and TEIN; and has represented ASTI in APNIC meetings. He has also attended IGF 2008 under a fellowship

program of APNIC.

He serves as co-chair of the AP\* retreat held in conjunction with APRICOT 2009 here in Manila.

He earned his degree in Computer Science at the University of the Philippines and is currently pursuing his Master's degree in the same field.



Jiri Navratil

Biography :

Dr. Navratil received his PhD in Computer Science from Czech Technical University at Prague in 1984 for his work on analysis of timesharing systems. He worked for 30 years at Computing and Information Center of CTU in different positions linked with High Performance Computing and Communications. During his several sabbatical leaves he worked for CERN Geneva, Switzerland, KEK Tsukuba Japan, and SLAC Menlo Park, California in the field of automatic control. After 2000 he moved into field of networking focusing on traffic monitoring. Since 2006 he works for CESNET in the group supporting special types of applications in different fields. CESNET is networking organization which connects all academic institutions in the country. High speed networks with 10Gbps backbone open wide area for mutual cooperation in national or international level. In last few years he is also focused on multimedia applications in medical field.



#### Abstract:

Advance education in robotic surgery

Jiri Navratil 1, Sven Ubik 1, Jan Schraml 2, Pavel Peciva 2

1 CESNET, Prague Czech Republic, 2 KZ a.s Usti nad Labem, Czech republic.

Robotic surgery brings many advantages to modern surgery techniques - precision, smaller incisions, decreased blood loss and consequently quicker healing time. The latest model of the visualization unit of the daVinci Surgical System uses 3D full HD to provide a perfect view of the patient body. The signal from the stereo camera can also be

used for E-health applications, such as remote medical students training or presentations of surgical procedures on symposia.. Today, practically all academic institutions are connected with high speed networks which are needed for such HD video broadcast. CESNET is trying to set up the consortium which will apply for a European grant “Advance education in robotic surgery”. In the frame of such a grant we would like to create a virtual network of the members and create a database of video recordings from different types of robotic operations with the goal to share them with other partners. The results of IT research focused on high-quality transport of 3D full HD video allow us to transmit 3D video to the remote partner sites which are connected into academic networks.



**Jin Tanaka**

**Biography :**

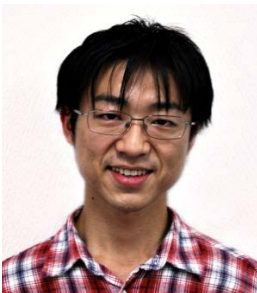
Jin Tanaka graduated from Dept. of Electrical and Electronics Engineering, Sophia University, Japan and joined KDDI Corp. in 1997. Tanaka was a network engineer of commercial ISP from 1997 to 1999. Since 2000, Tanaka has been working for some R&E network operator to support the high performance experiment of researchers in Japan. Tanaka is currently chief engineer of APAN-JP, and member of TEIN3-JP and JGN-X NOCs. Also, Tanaka is fellowship researcher of NICT to develop a prototype of new-generation network.



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**Abstract:**

This talk will touch on two separate topics: first, an update of the status and future plans for the high-performance APAN-JP NOC services between Japan and the Research and Education network community in Asian region. The second topic is an overview of network measurement and dynamic circuit network infrastructure activities. Moreover, I will talk about plans for utilization possibility of these new network technologies to support the medical telemedicine.



**Min Hu**

**Biography :**

Min Hu graduated of Biomedical Infomation Engineering from Northeastern University in China. And now he a research student in Kyushu University Hospital. Currently he is a homepage developer for the project National University Hospital International Medical Cooperation Network, which is for supporting all patients who live anywhere abroad and foreign patients living in Japan.



The 5th Asia Telemedicine Symposium  
2011.12.16 (Fri) - 17 (Sat)  
Kyushu University Hospital, Fukuoka, Japan

Taken at  
Collaboration Research Station (Dec 17)