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## ***Program of A C R S 2006***

The 27<sup>th</sup> Asian Conference on Remote Sensing

9-13 October 2006  
Cultural Palace (opening ceremony)  
Chinggis Khaan Hotel (technical sessions),  
Ulaanbaatar, Mongolia

Organized by

Asian Association on Remote Sensing (AARS)

The Mongolian Society for  
Photogrammetry and Remote Sensing (MSPRS)

Ministry of Education, Culture and Science (MECS)

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## **Welcome Messages**

Prof. Dr. Shunji Murai, General Secretary, AARS

Dr. Oe. Enkhuvshin, Minister of Education, Culture and Science

Prof. D. Regdel, Secretary General of the Mongolian Academy of Sciences

**Welcome Address** (Shunji Murai, General Secretary, Asian Association on Remote Sensing)

Distinguished Delegates, Distinguished Guests, Distinguished Participants,  
Ladies and Gentlemen!

On behalf of Asian Association on Remote Sensing (AARS), I as General Secretary would like to welcome all of you to the 27<sup>th</sup> Asian Conference on Remote Sensing (ACRS) here in Ulaanbaatar, a beautiful and historical city of Mongolia. I am happy to know that this year is a special memorial year of the 800<sup>th</sup> anniversary of Chinggis Khan Empire.

It is my great pleasure to be able to organize the ACRS for the second time in Mongolia since 1992 in cooperation with the local organizing committee. I congratulate the Organizing Committee as well as Mongolian scientists to host this important event for Asian remote sensing scientists in spite of many difficulties including finance. Since the very beginning, Mongolia has been one of most positive participants at ACRS in the past. Particularly Dr. Saandar contributed to the past ACRSs as National Delegate to AARS for long years.

As you may know, the ACRS has kept a unique style as follows as compared with other International or Western conferences.

1. The ACRS is fully open to any nation and region.
2. Non-discrimination, which means any full participant must pay the registration fee.
3. Self fund participation.
4. Inexpensive registration fee of just 100 US \$ including conference, parties, proceedings in CD ROM etc. I appreciate the organizing committee for the generous manner on behalf of participants.

5. Home made but not commercialized conference!

The ACRS has been sustained with the following philosophy.

1. Friendship First and Money After!
2. For Asian, by Asian and with Asian!
3. Asian style with Asian culture!

My task as General Secretary is to preach the philosophy to younger Asian scientists to achieve the sustainable ACRS for coming years. I am surprising myself how I could manage the ACRS for more than 25 years. The answer is clear. I have been supported by Asian friends who understand the philosophy. It pushed me up until now. I want to thank you for your support.

One of the most important outcomes of the ACRS is friendship as I mentioned before. Through this conference you may have more chance to exchange opinions and ideas with your new and old friends to promote the true growth of remote sensing in Asia. You may expand your human networks after the conference and keep good communication with your friends. This would be the real purpose of the spirit of Friendship First and Money After.

Finally I wish you to enjoy this conference and contribute yourself to improve the quality of the conference by presenting papers, discussing technical issues, making performance at welcome party, exchanging mail addresses etc., whatever you can do for the conference.

Again, I appreciate the Organizing Committee to have made a beautiful arrangement for the conference.

Thank you.

## **Conference Committee**

### **Honorary Chairman**

Dr. Oe. Enkhuvshin the Minister, Ministry of Education, Culture and Science , Mongolia

### **Conference Chairman**

Dr. M. Saandar President, Mongolian Society for Photogrammetry and Remote Sensing , Mongolia

### **Vice Conference Chairman**

Dr. M. Ganzorig, Director, Institute of Informatics and Remote Sensing, Mongolian Academy of Sciences ( MAS ) , Mongolia

## **Steering Committee**

Shunji Murai

General Secretary, AARS, Japan

Manu Omakupt

Deputy General Secretary, AARS, Thailand

D. Eegdel

General Secretary, MAS, Mongolia

## **Organizing Committee**

A. Bayasgalan, Director, School of Geology, the Mongolian University of Science and Technology, Mongolia

Ts. Adyasuren, President, Environmental Education and Research Institute ( Eco-Asia ) ,Mongolia

S. Hudulmur, Director , Information Center, the Ministry of Environment and Nature , Mongolia

N. Battogtoh, President, Holistic Consulting Ltd , Mongolia

## **Technical Program Committee**

D. Amarsaikhan, Head of Geoinformatics Department, Institute of Informatics and Remote Sensing, Mongolian Academy of Sciences, Mongolia

## **Financial Committee**

S. Bayasmaa, Secretary . the Mongolian Society for Photogrammetry and Remote Sensing, Mongolia

## **International Advisory Committee**

Prof. Bruce Forster, Australia

Prof. Tong Qingxi, China

Prof. A.J. Chen, China Taipei

Dr. Narpat Rathore, India

Prof. Haruhisa Shimoda, Japan

Mr. Nik Nasruddin Mahmood, Malaysia  
Prof. Armin Gruen, Switzerland  
Dr. Suvit Vibulsresth, Thailand  
Prof. Ian Dowman, U.K.  
Dr. Ngyuen Dinh Duong, Vietnam

## ***Conference Organizers***

### **Asian Association on Remote Sensing (AARS)**

Address: GISTDA/AARS-GEO,  
196 Phahonyothin Road, Chatchak, Bangkok 10900  
Phone: 66-2-579-0116 (Ms. Inthira) Fax: 66-2-561-3035  
E-mail: [info@gistda.or.th](mailto:info@gistda.or.th) (Ms. Inthira) or [chiwa@iis.u-tokyo.ac.jp](mailto:chiwa@iis.u-tokyo.ac.jp) (Ms. Fujino)  
Website: <http://www.aars-acrs.org>

### **The Mongolian Society for Photogrammetry and Remote Sensing**

r. 502, 5<sup>th</sup> Floor, the Sarora Hotel Bldg , Seoul Street, 12/6  
Ulaanbaatar , 210 646 , Mongolia  
Phone: + 976 11 327 824 Fax: + 976 11 327 824  
E-mail: [msaandar@mongol.net](mailto:msaandar@mongol.net) Website: [www.acrs2006.mn](http://www.acrs2006.mn)

### **Ministry of Education, Culture and Science**

Ulaanbaatar 210 611, Mongolia  
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E-mail: Website

## ***Conference Supporters***

### **Japan Aerospace Exploration Agency (JAXA)**

2-2-1 OhteMachi, Chiyoda-ku, Tokyo 100-0004 Japan  
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### **Digital Globe**

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### **Japan Association of Remote Sensing (JARS)**

c/o Yasuoka Lab. Institute of Industrial Science, University of Tokyo

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**Japan Society of Photogrammetry and Remote Sensing (JSPRS)**

c/o Japan Association of Surveyors

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**MonMap Engineering Services Co., Ltd**

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**Beijing Spot Image Co., Ltd**

r.2010-2011, Tower C Webok Times Center

17 South Zhongguancun Street

Haidian District , 100081 Beijing China

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**Geoinformatics Center , Asian Insitute of Technology ( AIT )**

P.O.Box 4, Klong Luang , Pathumthani, Thailand 12120

Fax: + 66 2 524 6147 Web page: <http://www.geoinfo.ait.ac.th>

## ***Conference Information***

### **The 27<sup>th</sup> Asian Conference on Remote Sensing October 9 – 13, 2006**

Asian Conference on Remote Sensing (ACRS) is an annual conference, which is held under the auspices of Asian Association on Remote Sensing. AARS was formed in 1981, and its principal activity is to hold the Asian Conference on Remote Sensing. The association also conducts other remote sensing activities consistent with its aims. ACRS is aimed to provide a forum for the scientists, engineers, researchers and users of remote sensing and geo-informatics technology in scientific and academic experience exchange.

The 27<sup>th</sup> ACRS will provide an opportunity for participants to meet and deliberate on advanced technology, to establish collaboration ties, and to foster friendship. The 27<sup>th</sup> ACRS is jointly organized by Asian Association on Remote Sensing (AARS), The Mongolian Society for Photogrammetry and Remote Sensing (MSPRS) and Ministry of Education, Culture and Science (MECS).

### **Registration**

- + All participants are requested to register at lobby of the Chinggis Khaan Hotel, the details are shown in the map.
- + The registration will be started on October 8, 2006, Sunday (13:00 – 21:00) and during the conference time (8:00 – 16:00).
- +Registration fee and Receipt
  - Pre-payment must be made at cashier before registration.
  - Participant who has already paid for the registration fee can get the Receipts at the secretariat desk.
  - Participant who makes payment during the conference can get the Receipts the day after at the secretariat desk.  
(Preferably after break or lunch)
- + Lunch, banquet and Conference kit coupons are attached with your name Badge.
- + For your convenience, please register on October 8, 2006, Sunday

### **Registration Fee**

Foreign Participants --- US\$ 100

Local Participants ----- Tug. 20,000 ₮

The registration fee per person for all participants, including session Chairpersons and presenting authors. The fee includes :

- + Attendance to the Conferences
- + One CD-ROM Proceedings and conference souvenir
- + Participation in the Opening and Closing Ceremonies
- + Lunch and Coffee breaks
- + Participation in Welcome Party
- + Participation in the Exhibition



## **Ulaanbaatar Capital City**

Ulaanbaatar today is a modern city of approximately 1 million residents. It reflects both as pasts of present day Mongolia society: nomadic culture and modern society.

Ulaanbaatar is located near the Bogd Khan Mountains (altitude 1,350 m), and is built on the banks of the Tuul River. In the days of the great Mongolian Empire, Kharakhorum, which is located to the west in the Orkhon Valley, served as the capital city of the country. However, in the 17<sup>th</sup> century Kharakhorum was abandoned as capital, and the government opted for an existence as a migratory tent city.

In 2006, Mongolia celebrates the 800<sup>th</sup> Anniversary of the Great Mongolia Empire, we look forward to you joining in the celebration. This new nomadic settlement was named Urga, and was in reality a large caravan of gers that moved from place to place. Eventually in 1778 it settled in its present location of Ulaanbaatar.

### ***Registration (100 US dollars in cash)***

14:00-20:00 October 8, Sunday: Registration at Chinggis Khaan Hotel

08:00-09:45 October 9, Monday, Registration at Cultural Palace

13:30-17:30 October 9, Registration at Chinggis Khaan Hotel

Registration Desk will be open on October 10 to 12 from 08:30 to 17:30

***Day1: October 9, 2006 (Monday)***

***Opening Ceremony at Cultural Palace, Sukhbaatar Square***

10:00-12:00, October 9, 2006 Monday

Opening Speech: His Excellency Dr. Oe. Enkhuvshin, the Minister, Ministry of Education, Culture and Science, Mongolia

Welcome Address: Emeritus Professor Shunji Murai, General Secretary, Asian Association on Remote Sensing (AARS)

Address: Emeritus Professor John Trinder, First Vice President, ISPRS

Address: Mr. Kaoru Mamiya, Vice President, Japan Aerospace Exploration Agency (JAXA)

Address: Professor D.Regdel, Secretary General, the Mongolian Academy of Sciences

11:00-12:00 Cultural Performance by Mongolian Children

12:00-13:30 Lunch at Restaurant 5F, Chinggis Khaan Hotel  
(Lunch is provided to those registered participants)

***Keynote Speech (25 min. presentation and 5 min. discussion)***

**13:30-15:00 Plenary Session At Chinggis Khaan Hotel**

K-1: Prof. John van Genderen:

Honorary Professor, National University of Mongolia

“Geoinformation Developments in Mongolia: Needs, Trends and Role of Human Resources”

K-2 Prof. Yoshifumi Yasuoka: Institute of Industrial Science, University of Tokyo, Japan,

“How can remote sensing contribute to Global Warming Issue?”

K-3: Dr. S. Khudulmur, Director, National Information Center, Ministry of Nature and Environment , Mongolia  
“ Applications of Remote Sensing in Mongolia”

15:00-15:30 Coffee/Tea Break (Exhibition will start during the break time)

***Invited Papers (18 min. presentation and 2 min. discussion)***

15:30-17:30

K-4: Prof. Haruhisa Shimoda, Tokai University, Japan  
“ALOS Sensors and Contributions to Asia”

K-5: Prof. Guo Huadong, Chinese Academy of Sciences  
“Report on RICESAT Project”

K-6: Prof. A.J.Chen, National Central University, China Taipei  
“Prospect of FORMOSAT”

K-7: Prof. Chu Liangcai, Chinese Association of Remote Sensing Application  
“Applications of Remote Sensing in China”

K-8: Prof. A.P. Cracknell, University Technology Malaysia, UK  
“ VIIRS, The Successor to the AVHRR”

K-9: Dr. Jack Scott, Australian Aerospace Consulting, Australia:  
“MetOp to NPOESS: A New Family of Earth Monitoring Satellite”

18:30-21:00 ***Welcome Party at Brauhouse, Seoul Street***

**Day2: October 10, 2006 (Tuesday)**

**Technical Program at Chinggis Khaan Hotel**

**09:00- 10:30**

**Room 1: Session A-1: Agriculture**

- A-1:** GIS Application to Spatial Distribution of Soil Salinity Potentials in Northeast Thailand  
Mongkolsawat. C, Thailand 006
- A-2:** Assessment Differences in Growth and Yield of Rice Crop between Satellite Data Simulated from Near Ground Hyperspectral Data  
Chwen-Ming Yang, China Taipei 011
- A-3:** Biomass Estimation at Miyagi Prefecture in Northeast Japan using RS and GIS  
Ryoko Iwasa, Japan 028
- A-4:** Predicting Tillage Practices and Agricultural Soil Disturbance in North Central Montana with Landsat Imagery  
N. Battogtokh, Mongolia 005
- A-5:** Biological Soil Crusts internal Classification Using Ground –Level Spectra Temporally-based Image selection for detection of Biological Soil Crusts in Southern Australia  
Ardavan Ghorbani, Iran 001

**Room 2: Session B-1: Geology**

- B-1:** Application of Multi-sensor Image to Monitoring Mining Activities and Related Environment Changes: a Case study at Daye, Hubei  
Yu Shiyong, China 016
- B-2:** Planning and Implementation of National Geo-scientific, Geo-Economic and Environmental Information Management System - an experience report  
Andress Barth, Germany 003
- B-3:** Debris Flow Occurrence Factors with Rough Sets Theory  
H. C. Pai, China Taipei 067
- B-4:** Procedure for developing appropriate geoinformation data using GIS for mining affected areas in Mongolia  
R. Tsolmon, Mongolia 007
- B-5:** Rate of Sand Dune Movement and Aeolian Deposits Distribution with the aid of Geo-information Technology

Mushtaki T. Jabbar, China 008

**Room 3: Session C-1: Urban**

**C-1:** Progressive Streaming and Rendering of 3D Terrain for Cyber city Visualization

Hau-Shiung Liu, China Taipei 013

**C-2:** A study on an Efficient Making Method of Detailed Time-series Urban Dataset by Spatial Integration of Yellow-page Data and Digital maps for Urban Analysis

Yuki Akiyama, Japan 036

**C-3:** Integrating GPS, GPRS and Inmarsat for Improved Efficiency

Albert Cheung, China Taipei 008

**C-4:** Evaluation of Urbanization Process in Ulaanbaatar City using Multitemporal RS Images

D. Amarsaikhan, Mongolia 003

**C-5:** 3D Structure Line- based Building Roof Reconstruction

Chieh-Chung Cheng, China Taipei 022

**Room 4: Session D-1: Oceanography/Meteorology**

**D-1:** Retrieving Water Depth, Inherent Optical Properties and Bottom Reflectance from Hyperspectral Data by Spectrum Matching

Narvada Dewkurun, Singapore 004

**D-2:** Taipei Hot Spring Web Geographic Information System

Chia-Hui Shih, China Taipei 004

**D-3:** HY-1 Satellite and Applying its Data to Monitoring Red Tides

Lin Mingsen, China 007

**D-4:** Determination of the Cloud Threshold for MODIS Imagery over Taiwan Region

D. Gerelmaa, China Taipei 012

**D-5:** GIS for Coastal Zone Site Plan Scenario Development after Tsunami Disaster in Meulaboh West Aceh

W. Wardhana, Indonesia 003

**10:30-11:00 Coffee/Tea Break**

**11:00-12:30**

**Room 1: Session A-2: Agriculture**

**A-6:** An Investigation on Spectral Properties and Soil EC to Map Salt-affected Soils in Thailand

Rajendra P. Shrestha, Thailand 024

**A-7:** Rice Yield Estimation using Aero Digital Imagery

Tzu-yi Liao, China Taipei 042

**A-8:** Spatiotemporal Characterization of Mongolian Grassland Based on Vegetation Trend Analysis

Akira Hirano, Japan 002

**A-9:** GIS Application for Mulberry Rust Disease at Pophra District, Tak Province

Vicharn Amarakul, Thailand 016

**A-10:** Using Uncertain Element in the Multi- Spectral Imager Assessment

Chih-Hao Ou-Yang, China Taipei 064

**Room 2: Session E-1 Disaster**

**E-1:** Assessment of Tsunami Damage to Mangrove in South Eastern Coast and South Andaman Islands of India using Remote Sensing and GIS

Yousef Ali Hussein, The Netherlands 001

**E-2:** Risk Assessment of Forest Fire Vulnerability

Anusorn Rungsripanij, Thailand 001

**E-3:** Role and Importance Remote Sensing Data in Earthquakes Studies

Mohamad Rukieh, Syria 001

**E-4:** The Use of MODIS Active Fire Products for Strategic Fire Management

Meissner Bernd, Germany 001

**E-15:** Assessment of Flood Vulnerability and Mitigation planning in Munshiganj District, Bangladesh using Remote Sensing and GIS

Kulapramote Prathumchai, Thailand

**Room 3: Session C-2: Urban**

**C-6:** Building Modeling by the Integration of Multi-Source Data

Lien Chien Chen, China Taipei 031

**C-7:** Remote Sensing Based Land Cover Classification with Common Categories for Big Cities in East Asia: An Ampirical study using terra ASTER data

Fang Guan, Japan 005

**C-8:** Investigation of Land Use in Residential Areas of Ulaanbaatar City Using Very High Resolution Satellite Images

D. Aamasaihan, Mongolia 002

**C-9:** Multi-scale Generalization of Three-dimensional Building Features in Urban Area

Cheng-Lien Fan, China Taipei 059

**Room 4: Session D-2: Oceanography/Meteorology**

**D-6:** The Dynamic Analysis of Coastal Land Use Patterns in Inner Lingdingyang, The Pearl River Estuary Xia Zhen. China 014

**D-7:** Spectral Reflectance of Clouds in Multiple- resolution Satellite Remote Sensing Images

L. K. Kwoh, Singapore 003

**D-8:** Change Analysis of Waisanding Offshore Sandbar by LiDAR Dem Wei-Chen Hsu, China Taipei 056

**D-9:** Detection and Analysis of Post – Typhoon Three –Dimensional Changes in Haeundae Beach Topography using GPS and GIS Technology

Chul Uong Choi, Korea 001

**D-10:** Shoreline Detection and Changes of North Banggi Island, Sabah, Malaysia

Ejria Saleh, China Taipei 051

**12:20-13:30 Lunch**

**13:30- 15:00 Poster Session P-1**

(Please register at Poster Registration Desk in advance to get the place based on “First Come and First Choice”)

**P-1:** Abstraction Information of Active and Concealed Faults by the Remote Sensing Technology

Aixia Dou, China 001

**P-2:** Extracting Urban Building Density and Floor area ratio Based on Extracting Urban Building Density and Floor area ratio Based on

Jin-ye Li, China 003

**P-3:** Spatial and Temporal Variation of Summer Corn

Li-Jing, China 005

**P-4:** The Decision-making Support System of Sustainable Development of Agriculture and Pasturing Industry in the Ecology-pasturing Economic Zone of Yanmengyuan of Shanxi Province Based on "3S" Technology

- Wang Yimin, China 011
- P-5:** Study the Vanished Causation of Culture of Kuahu Bridge in North of Zhejiang Province with Remote Sensing Data  
Wng Yongjiang, China 012
- P-6:** The Influence of Atmospheric Correction on Remote Sensed Parameters in multi-temporal Evapotranspiration Monitoring  
Wu Bing Fang, China 018
- P-7:** A Study on the Method to Retrieve land Surface Reflectance based on IRS P6 Data  
Zhang Zhaoming, China 021
- P-8:** Quantitative Remote Sensing by the Combination of LiDAR , Sun Photometer and Earth Observation Images  
Wei Gong, China 022
- P-9:** The SSMC Method for the Classification og High Spatial Resolution Remotely Sensed Images  
Xin Huang, China 026
- P-10:** An Analysis of Coastal Topography and Land Cover Changes at Haeundae Beach, South Korea , by Merging GIS and Remote Sensing Data  
Chul Uong Choi, Korea 001
- P-11:** Wildfire Fuel Mapping Using hyperspectral Remote Sensing Data  
Yeosang Yoon, Korea 006
- P-12: cancelled
- P-13:** Developing 3D Satellite Images Based Geographic Information System for Coast Disaster Area Management  
Myung Hee Jo, Korea 008
- P-14:** Absorption band-depth analysis of hyperion dataset  
M. Munguntuya, Mongolia 009
- P-15:** The Environmental Database Issue in Mongolia  
M. Bayasgalan, Mongolia 010
- P-16:** Introduction of The Forest Renovation Activity by Fishermen in Nortneast Japan, using RS and GIS  
Daisuke Kunii, Japan 003
- P-17:** Estimation of the Bamboo Aboveground Biomass Using Different Resolution Satellite Data  
Fuping Zhang, Japan 004
- P-18:** Synergetic use of MODIS and ASTER/ Landsat TM/ETM Data for Land Cover Classification in Arid and Semi-arid Area of the Northern China  
Hasi Bagan, Japan 007



- P-19:** A New Method for Individual Tree Detection Using Airborne LiDAR Pulse Data  
Hitoshi Taguchi, Japan 010
- P-20:** Self-Information Project: A Study on Context -aware and Relationship Based on self-information  
Jun Kumagai, Japan 012
- P-21:** Extraction of Nazca Lines by Satellite Data  
Katsuya Takaku, Japan 013
- P-22:** 3D Images of the Remains of the ancient Mojos civilization from Digital Photographs  
Kazuki Ishii, Japan 014
- P-23:** Field Detection of Non-Use Paddy Fields at Miyagi Prefecture in Japan Using Satellite and GIS Data  
Kazumasa Osawa, Japan 015
- P-24:** Projecting Future Food Demand and Supply: Global Modelling for Land Use and Cover Change  
Kenji Sugimoto, Japan 016
- P-25:** Identification for Relic Excavation of the Amazon Civilization from JERS-1/ SAR and ASTER images  
Kohta Imai, Japan 017
- P-26:** Land use management for the prevention of losses outbreak in Ordos of Inner Mongolia  
Takesi Yamamura, Japan 019
- P-27:** Diastrophism Evaluation of Niigata Chuetsu Earthquake by Aerial Photographs  
Nana Mayuzumi, Japan 024
- P-28:** Storm Surge Disaster of Typhoon 9918 at New Moji District with a Distributed Runoff Model  
Naoki Okada, Japan 025
- Q-53:** Automatic Building Height Extraction by Monoscopic Shadow Analysis  
Ts. Javzandulam, Mongolia 015
- Q-54:** Hyperspectral target detection Algorithms  
Sanaz Negahbani, ?
- Q-55:** Changes of NDVI associated with typhoon disturbance in subtropical forest ecosystems in central Taiwan  
Meng-Fen Lee, China, Taipei 073

**15:00- 15:30 Coffee/Tea Break**

**15:30- 17:30**

**Room 1: Session G-1: GIS**

**G-1:** Mobile Wireless GIS with Near Real-Time Access to Satellite Imagery

A. V. Huynh: Singapore 006

**G-2:** Elevation Surface Interpolation of Point Data using Different Techniques  
a GIS Approach

Kulapramote Pratumchai, Thailand 004

**G-3:** The Query System of Eco-environment Remote Sensing Monitoring  
Theme for the Three Gorges Project based on WebGIS

Xinhui Ma: China 019

**G-4:** Platform of Visualization and Web-based Collaboration of Spatial  
Information

Satoshi Ueyama: Japan 030

**Room 2: Session E-2: Disaster**

**E-5:** Time Series Analysis for Drought Monitoring and Impact Assessment on  
Agricultural Area in Khon Kaen Province, Northeastern Thailand

Daroon Kamthonkiat, Thailand 025

**E-6:** Compositing of MODIS Images for Burnt Area Detection in Southeast  
Asia

Jukka iimani Miettinen: Singapore 001

**E-7:** A Bayesian Network for Landslide Susceptibility Map using Aerial Photo  
and DEM

Chi-Chung Lau: China Taipei 005

**E-8:** The Study of Flood Risk Assessment on the Mae Klong River by  
Integrated Hydraulic Model with Geographic Information System

Thudchai Sansena: Thailand 012

**E-9:** Combating Land Degradation and Desertification in Drylands of India using  
Remote Sensing Technology and GIS

**Room 3: Session A-3: Agriculture**

**A-11:** The Construction of Land-use Data Map for Efficient Management of  
Large-scale Irrigated Farmlands in Uzbekistan

Takeo Amano: Japan 020

**A-12:** Mapping of Basic Capacity in Rice Production Saved from Chemical: A  
Case of Sustainable agriculture Network in Phichit Province, Thailand

Achariya Nate-Chei: Thailand 018

**A-13:** Analysis of Spatial Distribution of Paddy Field in the Northeast China Obtained by Using a Mapping Method Adapted to MODIS Data  
Satoshi Uchida: Japan 042

**A-14:** Application of Boosting to Improve Image Classification Accuracy in Rice Parcel with Decision Tree  
H. H. Chen: China Taipei 069

**Room 4: Session F-1: Forest**

**F-1:** Optical and Microwave Image Fusion to Detect and Monitor Illegal Logging and Tropical Rain Forest Encroachment in East Kalimantan, Indonesia  
Yousef Ali Hussein: The Netherlands 001

**F-2:** Cancelled

**F-3:** Modelling Forest Canopy Using Airborne LiDAR Data  
Jihn-Fa Jan: China Taipei 018

**F-4:** The Linear Mixture Model Applied to Landsat Data for Saxaul Mapping  
B. Suvdantsetseg; Mongolia 006

**F-14:** Estimating timber volume in a commercial Eucalytus plantation from Landsat ETM+ imagery: Results from two aspects  
Pranab J. Barauh, Japan

**F-15:** Net primary productivity estimation of Broadleaf forest by 3PG model comparing with MODIS iamge  
Supanlika Potitthep, Japan

**18:30 - 21:30**

**General Conference (1)** at Mongolian Restaurant (Taliin Mongol) located at Trade Street, near National Historical Museum, and opposite to the Head Office of Golomt Bank (only for National Delegates)

**Day 3 : Oct.11, 2006 (Wednesday)**

**09:00- 10:30**

**Room 1: Session I-1: Data Processing**

- I-1:** Automated Optimum Size Determination of Artificial Neural Network for an Efficient and Accurate Satellite Image Classification  
Joel Bandibas: Japan 011
- I-2:** Line Extraction in Remote Sensing Image using Hough Transform Based on Granular Computing  
Lianh Jing: Chian 004
- I-3:**Texture Analysis for Three Dimension Remote Sensing Data by 3D GLCM  
Chun-Kai Chang: China Taipei 014
- I-4:** The Investigation Land Surface Feature using Optical and SAR Images  
M. Ganzorig: Mongolia 004
- I-5:** Fractal Analysis for Hyper-spectrum in Remote Sensing  
Yamato Yamaura: Japan 035

**Room 2: Session E-3: Disaster**

- E-10:** Application of Satellite Data and Geographic Information System for Drought Risk Analysis in Bandanlanhoi district, Sukhothai Province  
Wipop Paengwungthong: Thailand 017
- E-11:** Evaluation of Landside Hazard Potentials in Shei-Pa National Park  
Ying-Hsu Liu: China Taipei 065
- E-12:** ALOS Palsar and Radarsat Application on Flood Detection in the Lower North of Thailand  
Kannika Komwong: Thailand 003
- E-13:** Disaster Management in India – Some Issue  
Narpat Sinh Rathore: India 002
- E-14:** Research and Management of Coal Fire in China  
Wu Chacha: China 013

**Room 3: Session G-2: GIS**

- G-5:** Using SSM/ I- derived Air-sea Parameters to Analyze the Formation Mechanisms of Equatorial Typhoon Vamei  
Chia-Chi Liu; China Taipei 003
- G-6:** GIS and Socio- Economic Study of Kaew Noy Dam  
Makasri Chaowagul: Thailand 005

**G-7:** A Method of Data Transformation for Satellite Images Metadata for Remote Sensing Images

Z. Y. Zeng: China 020

**G-8:** An Analysis for Tenants Change Using Digital Telephone Directory and Town Map in Tokyo Region

Takeshi Shibuki: Japan 033

**Room 4: Session F-2: Forest**

**F-5:** Shape-based Tree Crown Detection and Delineation in High Spatial Resolution Aerial Imagery

Min-Hsin chen: China Taipei 048

**F-6:** Long-term Monitoring for Vegetation at Mt. Sugihara

Hanae Sato: Japan 006

**F-7:** Watershed Characterization Based on Changes in Land Use and Forest Cover

Abigail Joy Ramos-Dumaup: Philippines 001

**F-8:** Forestland Classification and Zoning with Liwoshe Working Circle by Using Ecological Method

Yeong-kuan Chen: China Taipei 045

**10:30-11:00 Coffee/Tea Break**

**11:00-12:30**

**Room 1: Session I-2: Data Processing**

**I-15:** A new Feature Selection Method for EO-1/ Hyperion Image Classification - A case study of Subei region, China

Li Xianbin: China 006

**I-6:** Development of Linux-based Archived Data Processing System in JAXA/EOC

Miyano Yoshikazu: Japan 039

**I-7:** A new Robust Data Compressor for LIDAR Data Compression Biswajeet Pradhan: Malaysia 001

**I-8:** Proposal of the Methods of Evaluating Similarities between Trajectories by Describing the Shapes of Them

Tomoyuki Suzuki: Japan 037

**I-9:** Transitive Fuzzy System with Fading Signals Application to Remote Sensing Systems

Asadov Hikmat: Azerbaijan 001

**Room 2: Special Session: Presentation Techniques to be presented by  
White Elephants of ISPRS**

**S-1:** Emeritus Prof. John Trinder, University of New South Wales, Australia:  
Project Proposal

**S-2:** Prof. Armin Gruen, ETH, Switzerland: Thesis Writing

**S-3:** Emeritus Prof. Shunji Murai: University of Tokyo: Oral Presentation

**Room 3: Session G-3: GIS**

**G-9:** Geo-Informatics and Space Technology for Education and Research in  
Naresuan University

Wiboon Wattanatorn: Thailand 015

**G-10:** Design and Implementation of an Integrated GIS Application for  
Transportation Network Modeling

Yong-Jin Joo; Korea 005

**G-11:** Experience of Russia and Kazakhstan on Remote Sensing for Decision  
Making Support

Ippolitov Vitaly Yu: Russia 004

**G-12:** Adapting the LMF Temporal Splining Procedures from Serial to MPI/  
Linux Clusters

Yann Chemin; Bangladesh 001

**Room 4: Session F-3: Forest**

**F-9:** Using SPOT Satellite Image to Monitor the Forest Dynamics at  
Landscape Level on Nanjen Mountain Ecological Reserve in Taiwan

Yuh-Lung Chung: China Taipei 047

**F-10:** Biomass Estimation of Japanese Forest Using ASTER Data

Takahiko Sigihra: Japan 038

**F-11:** Habitat Suitability Evaluation for Asian Elephant ( *Elephants maximus*  
in the Bardia National Park, Nepal)

Tej B. Thapa: Nepal 001

**F-12:** Application of Remote Sensing and GIS for Sustainable Forest  
Management Capacity Building in Mongolia

Daniel: Germany 002

**F-13:** Monitoring Forest Landscape Using Photogrammetric Techniques and  
Landscape Models

Chih-Da Wu: China Taipei 010

**12:30-13:30 Lunch**

**13:30- 15:00**

**Poster Session P-2** (Please register at Poster Registration Desk in advance to get the place based on “First Come and First Choice”)

- P-29:** Monitoring a Volcanic Plume at Miyake Island with Satellite Data  
Naoya Osawa, Japan 026
- P-30:** Monitoring Vegetation changes on Kasugayama Primeval Forest Area, using Multitemporal Landsat TM/ ETM+ satellite images  
Noriko Soyama, Japan 027
- P-31:** Runoff Change with Urbanization in Tama New Town Watershed and its Fractal Geometry  
Shun Yamakawa, Japan 029
- P-32:** Identification for the Undersea remains at Yonaguni Island with Satellite Data  
Tatsuma Jahana, Japan 032
- P-33:** Fire Risk Assessment for Tiger Preybase in Chilla Range and Vicinity Rajaji National Park, India Using Remote Sensing and GIS  
Yousif Ali Hussein, The Netherlands 001
- P-34:** Field Validation of Rapid Post - Disaster Damage Maps of the 27 May Indonesia Earthquake Site  
Norman Kerle, The Netherlands 002
- P-35:** A Management Strategy for Future of Remote Sensing and GIS Integration in Nigeria.  
Ediang O. A., Nigeria 001
- P-36:** Regional Ecological Monitoring of Ecosystems Condition on the Base of Big-Scale Cartography (on an example of bulgan somon, southern gobi aimag, Mongolia)  
E. A. Vostokova, Russia 001
- P-37:** Open Dragon Programmer's Toolkit: A Framework for Learning Geoinformatics Software Development  
Goldin, Thailand 002
- P-38:** GIS- based land Evaluation For Combining Economic Crops as a Model for Agricultural Landuse Planning  
Monghkolsawat C., Thailand 006
- P-39:** High Resolution Data Fusion: Increasing Image Quality for detection and Identification of Different Objects

- Mehdiyev Magsud, Thailand 007
- P-40:** Site Suitability Analysis for Industrial Area in Haridwar and Its surroundings Using Remote Sensing and GIS  
Patkorn Theopjorn, Thailand 008
- P-41:** An application of Direction Finding Antennas for Lightning Locating System  
Raungyudh Raungsakul, Thailand 010
- P-42:** Using Remote Sensing and GIS Technology for Mapping the Tsunami Affected Areas in Southern Thailand  
Suthep Chutiratanaphan, Thailand 011
- P-43:** NOAA-AVHRR and Terra/Aqua MODIS Data Receiving Systems in Asian Institute of Technology,  
Vivarad Phonekeo, Thailand 013
- P-44:** Risk Management for Chemical Emergency System based on GIS and Decision Support System  
W. Kanarkard, Thailand 014
- P-45: Cancelled
- P-46:** Urban Sprawl and Landuse Change in Suvanabhumi Airport ( New Bangkok International Airport-NBIA) Area, Bangkok, Thailand  
Vajendra Sintop, Thailand 023
- P-47:** Classification of Old-Growth Structure Characteristics Using Photogrammetry and Remote Sensing  
Chi-Chuan Cheng, China Taipei 006
- P-48:** Using a GIS Road Network to Improve GPS Positions.  
Chun-Jung Hsu, China Taipei 007
- P-49:** Forestry Monitoring with MODIS-derived Vegetation Indexes in Taiwan  
D. Gereimaa, China Taipei 012
- P-50:** Morphological Processing of Video for 3D Building Model Visualization  
Fuan Tsai, China Taipei 015
- P-51:** Solving Photo Orientation by means of Control Entities  
Nei-Hao Perng, China Taipei 019
- P-52:** Feature Extraction of LiDAR Point Cloud Sets and Accuracy Assessment  
Shih-Huang Lin, China Taipei 021
- P-53:** Landslides Detection using Aerial Ortho-Image and LiDAR Data  
Jiann-Yeou Rau, China Taipei 024
- P-54:** A Hierarchical Perspective towards the Management and Application of Metadata for Remote Sensing Images  
Jung-Hong Hong, China Taipei 026



- P-55:** Single-Epoch Ambiguity Resolution for Airborne GPS Carrier-Phase Observations  
Kang-Wen Chu, China Taipei 027
- Q-49:** Automatic Geometric Correction  
Hyunsuk Kim, Korea 011
- Q-50:** Effect of Atmospheric Correction for Land Cover Classification Using Hyperspectral Data  
Sun Hwa Kim, Korea 012
- Q-51:** Extracting Bare Ground Points Airborne LiDAR Data in Mountainous Forested Area  
Jong Suk Yoon, Korea 013
- Q-52:** Estimation of Land Surface Temperature Using NOAA-A VHRR Thermal Infrared and Weather Station Data in the Mongolian Grassland  
S. Tuya, Mongolia 013

**15:00- 15:30 Coffee/Tea Break**

**15:30 - 17:30**

**Room 1: Session H-1: Mapping**

- H-1:** Dense Digital Surface Model and TrueOrtho image allow Supporting Versatile and Innovative Application  
Myriam Chikhi: France 003
- H-2:** Extracting the Characteristic Information of Coast Environment Using high resolution Satellite Images in West Sea Garolim Bay  
Myung Hee Jo: Korea 008
- H-3:** A Comparison of Neural Network and Maximum likelihood for Landuse/Landcover Mapping in Khon Kaen Province, Thailand  
Suwanwerakamtorn R. Thailand 021
- H-4:** Application of ALOS PALSAR Data for Efficient Land Cover Mapping  
D. Amarsaikhan: Mongolia 001
- H-5:** A study for Rapid Phase Ambiguity Resolution on Precise Kinematic GPS Positioning  
Chi-Hsiu Hsieh: China Taipei 025

**Room 2: Student Session/Education (invited Speech)**

- SS-1:** Student Consortium of ISPRS; Representatives from Asia
- SS-2:** Prof. Kohei Cho, Tokai University, Japan: Role of E-Learnig

- SS-3:** Mr. Sjaak Beeren, ITC, The Netherlands: Capacity Building in Developing Countries
- SS-4:** Dr. Nguyen Dinh Duong, Institute of Geography, Vietnam: Free Software Development on Remote Sensing and GIS for Education
- SS-5:** Prof. Tuan-Chih Chen, China Institute Technology, China Taipei: ISPRS on Internet-Education, E-Learning and Distance Education

**Room 3: Session I-3 Data Processing**

- I-10:** The Research of Knowledge Expression on Image Classification by using Rough Sets Theory and PCA  
I. L. Shih: China Taipei 071
- I-11:** An Error Correction Method for NOAA Image  
An Ngoc Van: Japan 043
- I-12:** Automatic Bridges Extraction from Multi-sources Satellite Imagery Using Fusional Level set Model  
Yun Yang: China 017
- I-13:** A Neural Network Method of Selective Endmember for Pixel Unmixing  
Wu Ke: China 025
- I-14:** Orienting FORMOSAT -2 Imagery by Control Entities  
Yi-Chien Lin: China Taipei 020

**Room 4: Session J-1: SAR**

- J-1:** Classification of Polarimetric SAR Data Using an Alpha-Entropy  
David Bruce: Australia 002
- J-2:** Assessment of Single Date ENVISAT Alternating Polarization ASAR Data for Rice Mapping  
Tan Bingxiang: China 010
- J-3:** Initial-period Data Analysis of PALSAR  
Tomonori Deguchi: Japan 034
- J-4:** On Detecting Edges in Polarimetric Synthetic Aperture Radar Imagery  
Ken Yoong Lee: Singapore 002
- J-5:** Polarization Signatures of Microwave Emission from Dry Snow  
Alexandar A. Chukhlantsev: Russia 003

## **Day 4 : Oct.12, 2006 (Thursday)**

**09:00 - 10:30**

### **Room 1: Session T-1: Environment/Ecosystem**

- T-1:** The ecosystem research of Yingtai in Jilin Oil Field Based on Remote Sensing Data  
Shen Jinli: China 009
- T-2:** Analysis of the Geographical Process of Land Degradations in Plateau Region with Time-series Satellite Images  
Hiroyuki Miyazaki: Japan 008
- T-3:** Dust and Sand Storm Monitoring of Mongolia  
L. Ochirkhuyag: Mongolia 008
- T-4:** The Heat Island Patterns over the western Taiwan Plain with MODIS and Airborne IR Imager Data  
T. H. Kuo: China Taipei 039
- T-5:** Application of Remote Sensing Quantitative Retrievals in the High Performance Geo-Computational Environment  
Ying Luo: China 015

### **Room 2: Session H-2: Mapping**

- H-6:** A test on the Determination of GCP and ICP for 1-m High Resolution Satellite Image  
Su-Young Park: Korea 003
- H-7:** A Study of Cadastral Coordinate Transformation Using Artificial Neural Network  
Lao-Sheng Lin: China Taipei 030
- H-8:** Applying DEM to Analyze Topographic Attributes on the Spatial Distribution of Vegetation  
Li-Hsin Hsieh: China Taipei 052
- H-9:** Remote Sensing and GIS Application for Water Reservoirs Conservation  
Jin-Jia Syu: China Taipei 070
- H-10:** Fusion of Shape and Spectral Features for the Classification of High Spatial Resolution Remotely Sensed imagery  
Xin Huang: China 026

### **Room 3: Session J-2: SAR**

- J-6:** Coherent Target Analysis for Detecting Long-Term Subsidence in Shanghai  
Deren Li: China 023
- J-7:** Rainfed Rice Area Mapping and Backscatter Analysis Using Multi-temporal RADARSAT-1 Images in Pangasinan and Nueva Ecija Provinces of Philippines.  
Mehdiyec Magsud: Thailand 007
- J-8:** Construction of A Mobile Platform for Microwave Remote Sensing Scatterometer System  
Halim Aziz: Malaysia 002
- J-9:** Monitoring of Bar Transformation in the Han River Estuary Using RADARSAT/ SAR Images  
Chan-Su Yang: Korea 009
- J-10:** Analysis on temporal changes of soil moisture with SAR iamges for agricultural drough monitoring in north-eastern part of Thailand  
Junichi Susaki, Japan

**Room 4: Workshop W1: Title to be announced**

Coordinator: Dr. Lal Samarakoon, Geoinformatics Center, AIT

10:30-11:00 Coffee/Tea Break

**11:00 - 12:30**

**Room 1: Session L-1: Land Use/Land Cover**

- L-1:** Classification Smoothing in Land Cover Mapping Using MODIS Data  
Ngyuen Dinh Duong: Vietnam 001
- L-2:** The Study of using multi-scale spatial data in landslide monitoring and landuse classification interpretation  
Yeh Mei Lin: China Taipei 062
- L-3:** Local Specific Characteristics of Land Use in Regions of Sudan Gezira Irrigation Scheme  
Kiyoshi Torii: Japan 018
- L-4:** Platform for Visualization and Web-based Collaboration of Spatial Information  
Shigeo Ogawa: Japan 030
- L-5:** A Study on Cadastral Coordinate Transformation Using Artificial Neural Network

Liu Jin-King: China Taipei 033

**Room 2: Session M-1: Photogrammetry/Lidar**

**M-1:** Digital OrthoPhoto Camera System

Cheng Xiangning: China 002

**M-2:** Objects Tracking and Positioning Using Multiple Active Video Cameras

Bing-Cyuan Lai: China Taipei 001

**M-3:** Automatic Reconstruction of 3D Road Models by Using 2D Road Maps and Airborne LiDAR Data

Chao-Yuan Lo: China Taipei 002

**M-4:** Using a Tree Dimensional Spatial Database to Orthorectify Automatically Remote Sensing Images

Myriam Chikhi: France 002

**M-5:** Planar Feature Extraction from LIDAR Data Based on Tensor Analysis

Chung-Cheng Lin: China Taipei 009

**Room 3: Session T-2: Environment/Ecosystem**

**T-6:** The construction of spatial integrated data map for control the crop losses damaged by wild beasts

Kiyoyuki Yaota: Japan 021

**T-7:** Predicting Invasive Species Distributions at the Large-scale Using GIS and Remote Sensing

Hao Chen: China 024

**T-8:** Current Status of GOSAT Ground System Design and the Role of NIES

Hiroshi Watanabe: Japan 041

**T-9:** A Study of Developing GIS-based Water Quality Management System of rural area

Tao Song: Korea 004

**T-10:** The Network of Model Polygon for Long-Term Monitoring Ecosystems of Mongolia

M.Saandar: Russia 002

**Room 4: Workshop W2: “Thematic Processing modeling and Analysis of Remotely Sensed Data”**

Organized by ISPRS Technical Commission VII

Coordinator: Prof. John van Genderen

**12:30-13:30 Lunch**

**13:30-15:00**

**Poster Session P-3**(Please register at Poster Registration Desk in advance to get the place based on “First Come and First Choice”)

- P-56:** Application on Terrestrial Laser Scanner and Plotless Sampling Techniques on Estimating the Total Basal Area of Forest Stands  
Knag-Sheng Yeh, China Taipei 028
- P-57:** Terrain Change Detection Combined Photogrammetric DEM and Airborne LiDAR Data  
Kuo-Hsin Hsiao, China Taipei 029
- P-58:** Using Segmentation Techniques and Fractal Theory to Extract Cloud Coverage for Fromosat-2 Quick-Look Images  
Li-Yu Chang, China Taipei 032
- P-59:** Estimating Tree Height and Locations Using Airborne Lidar in Old Tree Area  
Ta-Ko Chen, China Taipei 038
- P-60:** Horizontal Accuracy Evaluation of the Point Clouds from Airborne Lidar, An Experiment with Two Datasets of Hsin-Chu Area  
Tian-Yuan Shih, Chian Taipei 040
- P-61:** Applying SSM/I data in Estimating the Typhoon Precipitation via a Rotational TRaP Method  
Yen-Chih Chen, China Taipei 043
- P-62:** Derivation and Analysis of annual LAI from MODIS  
Yin-Ju Chen, Chian Taipei 044
- P-63:** Monitoring of Illegal Dumping Using Spatial Data Mining and Remote Sensing  
Ching-Yueh Chang, China Taipei 049
- P-64:** Multi-Temporal Satellite Image Classification Using Spectral Class Database  
Chi-Farm Chen, China Taipei 050
- P-65:** Forest Cover-type Classification Using SPOT4 and SPOT5 Images  
Su-Fen Wang, Chian Taipei 053
- P-66:** Semi-Automatic Extraction of 3D Building Roofs from Airborne LiDAR Data  
Shih-Hong Chio, China Taipei 054
- P-67:** A Split and Merge Tehcniques for Building Shaping  
Tee-Ann Teo, China Taipei 055
- P-68:** Establish A 3D Model Using Laser Scanner at A Fixed Station

- Wei-Kai Fang, China Taipei 057
- P-69:** Ground Based LiDAR Systematic Error Analysis and Calibration  
Yi-Hsing Tseng, China Taipei 058
- P-70:** Evaluation for the Velocity of Debris Flow through Image Processing Techniques  
Hsiu-Yi Ko, China Taipei 061
- P-71:** The Research of Checking Paddy Field Thematic map by Using Dempster-Shafer Theory  
Y. R. Wang, China Taipei 063
- P-72:** Automatic Cloud Cover Information for Multi-Spectral Imager Assessment  
Chih-Heng Liu, China Taipei 066
- P-73:** Urban Expansion Simulation Based on Cellular automata - A Case Study on Nantun Region  
Yao-Chih Hu, China Taipei 068
- P-74:** Estimating Vehicular Pollution Effects in Coimbatore using GIS Environment  
K. Shanthi Viswanathan, India 003
- P-75:** Location Based Service in Geomatics  
Tanvee Gupta, India 004
- P-76:** Application of GIS and Remote Sensing in the Analysis of the Environment of the Bay of Bengal Using Some Oceanic Parameter  
Balkrishna Patidar, India 005
- P-77:** Relationship of Temperature and Vegetation Changes in Urban Area with Multitemporal Satellite Data  
Ketut Wikantike, Indonesia 001
- P-79:** The Use of Remote Sensing and GIS Data to Enhanced the Information on Decision Processes for Defining the Typology of Forest Management Unit in Tropical Forest Certification Decision Process  
W. Wardhana, Indonesia 002
- P-80:** A GIS, GPS, Database Internet GIS Software  
Mohamad Elsayed Eishayel, Egypt 001
- P-81:** Maged Marghany, Malaysia 004
- P-82:** Dean F. Hood, France 001
- P-83:** Development of GT Simulator for Learning Spectra Measurement.  
Atsushi Komaki, Kohei Cho, Kazuyuki Tomoshige, Haruhisa Shimoda, Japan
- Q-45:** The Point-Source Pollution Management based on GIS and DSS  
Prof. Wiroj Taweepworadej, Thailand 038

- Q-46:** Variational Method of speckle Reduction and Boundary Detection in SAR Imagery  
Shen Chaomin, China 030
- Q-47:** Optimized Visibility by the Level Set Method  
Shen Chaomin, China 030
- Q-48:** 3D Road Shape Production Techniques by Fusion of Laser Data and CCD Image  
Sooahm Rhee, Korea 010

**15:00-15:30 Coffee/Tea Break**

**15:30 - 17:30**

**Room 1: Session M-2: Photogrammetry/Lidar**

- M-6:** Development of Orientation and DEM/Orthoimage Generation Program for ALOS PRISM  
Izumi Kamiya: Japan 040
- M-7:** The Generation of True Orthoimages Using DEM, 3D Road models and Multi-View Aerial Images  
Shin-Hui Li: China Taipei 037
- M-8:** Characteristics of Intensity Signal from Airborne LiDAR Data  
Jung Il Shin: Korea 002
- M-9:** Automatic Registration of Ground-based LiDAR Data Sets by Using 3D  
Tzu-Yi Chunag: China Taipei 023
- M-10:** A Wavelet Approach for Determining Surface Covered with AirborneLiDAR Points  
Jaan-Rong Tsay: China Taipei 017

**Room 2: Session N-1 Hydrology/Water**

- N-1:** Remote Sensing and GIS Application for Water Reservoirs Conservation  
Liu Yi-Hsuan: China Taipei 070
- N-2:** Ecosystem evaluation around Watarase retarding base - A Case Study of Subei Region, China  
Hiroyuki Kobayashi: Japan 010
- N-3:** Soil Moisture Estimation Mongolia using ALOS PALSAR Data Motoyuki Sato: Japan 023
- N-4:** Matrix Overlay for Drought Assessment in the Nam Choen Watershed NE, Thailand



Suwanwerakamtorn R. : Thailand 020

**N-5:** Ground Based All Sky Imager to Study Large-scale Wave Feature

P. K. Rajesh: China Taipei 036

**Room 3: Session O-1 Satellite System**

**O-1:** Digital Asia Data Sharing in Asian Region

Pornthip Limiahapun: Thailand 009

**O-2:** Topo Map Generation by ASTER data and its Accuracy Evaluation

Hiroshi Watanabe: Japan 041

**O-3:** Retrieval and Utilization of Online Available Satellite Imagery

T. Bretschneider: Singapore 005

**O-4:** RazakSAT Images Receiving and Processing Station

Shamasul Azman Samsuddhin: Malaysia 003

**O-5:** Improve performance of Aqua MODIS band 6

Preesan Rakwatin, Japan

**Room 4: Workshop W3 “Improvements in referencing geospatial data:**

**Latest status “** Organized by MSPRS, Mongolia and NGA, USA

Coordinator: Dr. M. Saandar and Steve Kenyon

**18:30 - 21:30**

**General Conference (2)** at Ulaanbaatar Hotel, 6F Room 606/607 (only for National Delegates)

## **Day 5 : Oct.13, 2006 (Friday)**

### **09:00- 10:30 Plenary Session: Demonstration of Virtual Reality, New Satellite Imagery, 3D Modeling etc.**

- (a) Landscape modeling
- (b) 3D city modeling
- (c) Cultural Heritage modeling

### **9:00-10:30 Poster Session P4:**

- Q-1:** An Application of Direction Finding Antennas for Lightning Locating System  
Raungyudh Raungsakul, Thailand
- Q-2:** Application of Remote Sensing and GIS in Landslide Detection  
Yung-An Yang: China Taipei
- Q-3:** Wavelet Networks for Hyperspectral Images Classification  
Hsiu-Han Yang: China Taipei
- Q-4:** Building Extraction from LiDAR Data Using Wavelet Analysis  
Cheng-Kai Wang, Pai-Hui Hsu, China Taipei
- Q-5:** Comparison of Projection Pursuit and Matching Pursuit in Feature Extraction of Hyperspectral Images  
Pai-Hui Hsu: China Taipei
- Q-6:** Impact of Atmospheric Water Vapor Content on Land Surface Temperature Retrieving from NOAA/AVHRR Data  
Shin Akatsuka: Japan
- Q-7:** A study on estimation of bio-physical parameters of individual tree stands derived from LIDAR data and digital matrix camera image  
Tatsuya Nawamura: Japan
- Q-8:** The Use of MODIS Active Fire Products for Strategic Fire Management  
Yusuke Kobayashi: Japan
- Q-9:** Temporally-based Image selection for detection of Biological Soil Struts in Southern Australia  
Ardavan Ghorbani: Australia
- Q-10:** Damage Estimate of Waterworks Networks in the Earthquake  
Miyuki Umezawa: Japan
- Q-11:** Use of GIS and Database Technologies for Knowledge Based Prediction of Geological Phenomena by Stochastic Method

- M. Sieste: Germany
- Q-12:** A Management Strategy for Future of Remote Sensing and GIS Integration in Nigeria  
Ediang O. A: Nigeria
- Q-13:** Prediction of the Summer Convection with MODIS and NOAA Satellite Data  
Gin-Rong Liu: China-Taipei
- Q-14:** Using SPOT Satellite Image to Monitor River Water Quality Pollution Index  
Po Jen Lin: China-Taipei
- Q-15:** GIS- based land Evaluation For Combining Economic Crops as a Model for Agricultural Landuse Planning  
Mongkolsawat.C, Thailand
- Q-16:** Development of MODIS Fire Information System for Forest Fire Monitoring in southeast Asia  
Vivarad Phonekeo, Thailand
- Q-17: Analysis of the Spatial Continuity Vegetation-covered Areas on a Regional Scale**  
Kiichiro Kumagai, Japan 061
- Q-18: A time series evaluation of ASTER surface emissivity products**  
Takashi Shinoda, Hideyuki Tonooka, Japan 062
- Q-19: A study on impact of band-to-band misregistration on ASTER TIR products**  
Tomoharu Muneta, Japan 063
- Q-20: Bridge Monitoring System Using Close Range Digital Photogrammetry and Web GIS**  
Jong Hyeok Jeong, Japan 064
- Q-21: A Comparative study on classification techniques to extract urbanization area using satellite images**  
Ayako Tanaka, Japan 044
- Q-22: A study on distribution tendencies of commercial clusters in urban area by detailed time-series urban dataset**  
Tatsuro Osada, Japan 045
- Q-23: A Method of Human Extraction in Crowded Scenes by using Multiple Laser Range Scanners and CCD Camera**  
Hiroki Takahashi, Japan 046
- Q-24: Crowds Flow Detection and Monitoring of Indoor Temperature Distribution for Advanced Air Conditioning Control**  
Kyoichiro Kataira, Japan 047

- Q-25: **A study of Information Delivering Based on Context-awareness for Migration Walking**  
Masaki Saito, Japan 048
- Q-26: **Daily Activities Support System based on User's Self-Information Actionlog**  
Ta Duy Thang, Japan 049
- Q-27: **Accurate Geomatic Transformation of Laser Scanner Data by Multi Surfaces Measurement**  
Kazu Kinoshita, Japan 050
- Q-28: **Establishing Image Database for Slope Disaster Information System with GPS Digital Camera and Web GIS**  
Yuta Yamamoto, Japan 051
- Q-29: **Application of Multi-temporal Satellite Data and GIS for the Environmental Change Detection**  
Ch. Bolorchuluun, Mongolia 014
- Q-30: **Land-use/ Land-cover Classification Method Under Spatial Constraint**  
You Shu-cheng, China 02
- Q-31: **Monitoring Forest Biomass in Mongolia**  
Zagdaa Narangerel, Mongolia 012
- Q-32: **Application of remote sensing data in determining regional landslide hazard analysis by using logistic regression model and GIS**  
Jasmi Ab Talib, Malaysia 005
- Q-33: **Using SPOT Satellite Image to Monitor River Water Quality Pollution Index**  
Po Jen Lin, Min Luen Shih, Prof. Pao Shan Yu, Terng Jou Wan, Huei Ru Lin, Shih Peng Io, China Taipei 035
- Q-34: **THEOS Data Processing and Its Images Quality**  
Damrongrit Niammuad, Thailand 027
- Q-35: **IKONOS and SPOT-5 Application in Large Scale Mapping**  
Piyawan Jaruphumik, Ramphing Simking, Thailand 028
- Q-36: **Use of GIS to Find the Risk Area of Leptospirosis Nakornratchasima, Thailand**  
Sitthisak Moukomla, Siam Lawawirojwong, Pisut Naknuenwai, Anusorn Rungsripanij, Thailand 029
- Q-37: **The Study of Flood Risk Assessment on the Mae Klong River by Integrated Hydraulic model with Geographic Information System**  
Thudchai Sansena, Thailand 030

- Q-38: **Metadata Implementation for Thailand Spatial Data Infrastructure**  
Thitawadee Suvachananonda, Chaowalit Silapathong, Anusorn Kunarsa,  
Thailand 031
- Q-39: **Comparison of NDVI from Multi-dates SPOT and LANDSAT for Forest Monitoring**  
Amornchai Prakobya, Supapis Pol – ngam, Thailand 032
- Q-40: **Mangrove Changes after Tsunami in Thailand**  
Yootthapoom Potiracha, Thanwarat Anan, Kampanat Deeudomchan,  
Thailand 033
- Q-41: **Application of RS/ GIS for Monitoring Typhoon and Storm in Thailand**  
Ms.Siriluk Prukpitikul, Ms. Varatip Buakaew, Mr. Watchara Kasdach,  
Thailand 034
- Q-42: **Application of Remote Sensing and Geographical Information System (GIS) for Coastal Zone Management off Cochin Coastal Region, India**  
Wimon Pathtong, Thailand 035
- Q-43: **Study of Urban Evolution and Settlement Patterns of Pak Kret Municipality, Changwat Nonthaburi by Using Satellite Data**  
Chanika Sukawattanavijit, Thailand 036
- Q-44: **Leaf Area Index Estimation by Using Remote Sensing Technique in Khao Phra Wihan National Park**  
Apinan Kantirach, Thailand 037

**10:30- 11:00 Coffee/Tea Break**

**11:00- 12:00 Closing Ceremony**

Chaired by Mr. Manu Omakupt, Deputy General Secretary, AARS

Summary of the 27<sup>th</sup> ACRS:Dr. M. Saandar, Conference Chairman

JSPRS Award for Best Presentations and Best Posters  
(to be presented by Prof. Shunji Murai. President, JSPRS)

Vote of Thanks

Closing Remarks

Welcome for the 28<sup>th</sup> ACRS in 2007 to be held in Kuala Lumpur, Malaysia

## Pre-conference Tutorials:

On the occasion of the 27<sup>th</sup> Asian Conference on Remote Sensing (ACRS) to be held in Ulaanbaatar, Mongol, 9-13<sup>th</sup> October, 2006, the following ACRS Pre-conference Tutorials will be organized at the Mongolian University of Science and Technology (MUST), Ulaanbaatar, Mongolia between the 6<sup>th</sup> and 8<sup>th</sup> and on 11<sup>th</sup> October, 2006, jointly by the Asian Association on Remote Sensing (AARS), ISPRS Commission VI Special Interest Group on Technology Transfer Caravan, ISPRS Student Consortium, Asian Institute of Technology (AIT), Japan Aerospace Exploration Agency (JAXA), and local students. The Tutorials are associated with the Student Summer School organized by the ISPRS Student Consortium.

The Tutorials are open to Mongolian scientists/students as well as participants of the 27<sup>th</sup> ACRS. Those who intend to participate in the Tutorials are requested to register by e-mail to: [cho@yoyogi.u-tokai.ac.jp](mailto:cho@yoyogi.u-tokai.ac.jp) (Prof. Kohei Cho). The registration is free of charge.

Dr. Bayasgalan Amgalan, Director, School of Geology, Mongolian University of Science nad Technology (MUST) kindly assists the tutorial as the host.

His e-mail address is: [bayas@must.edu.mn](mailto:bayas@must.edu.mn)

### Tutorials

#### Tutorial 1: Multi-spectral Classification with ALOS AVNIR2 / Terra ASTER Data

Lecturer: Dr. Ngyuen Dinh Duong, Institute of Geography, Vietnam

Maximum Number: 30 persons

Venue: Mongolian University of Science and Technology (MUST)

Date: 6<sup>th</sup>-8<sup>th</sup> October, 2006

Requirements: For Mongolian participants PCs are provided. Foreign participants are requested to bring their own PCs.

Softawre: WinASEAN (provided by Dr. Duong)

Data: ALOS AVINIR Data near Ulaanbaatar which will be provided by JAXA

Program:

6<sup>th</sup> October: Friday

9:00-9:15      Opening

9:15-11:00    Introduction of ALOS Program: Prof. Haruhisa Shimoda (Tokai University, Japan)

11:00-12:00   Introduction of WinASEAN: Dr. Nguyen Dinh Duong (EISA, IG, Vietnam)

12:00-13:30 Lunch  
13:30-17:00 Hands on Training; Multi-spectral Analysis with ALOS AVNIR2 / Terra  
ASTER Data: Dr. Nguyen Dinh Duong  
(Software and data are provided to each participant free of charge)

7<sup>th</sup> October: Saturday

9:00-16:30 Field Trip to Grass Land for Selection of Control Points for Satellite  
Image

Processing by GPS and Ground Truth for Land Cover Classification

Remark: Any person who does not join the tutorials may participate in only the field  
trip. But the registration must be made in advance by e-mail to Prof. Kohei  
Cho ([cho@yoyogi.u-tokai.ac.jp](mailto:cho@yoyogi.u-tokai.ac.jp)).

8<sup>th</sup> October: Sunday

9:00-12:00 Hands on Training (continued); Multi-spectral Analysis with ALOS  
AVINIR2 / Terra ASTER Data: Dr. Nguyen Dinh Duong

12:00-13:30 Lunch

13:30-16:30 Assessment of Multi-spectral Classification

16:30-17:00 Closing

### Tutorial 2: 3D Mapping with High Resolution Satellite Imagery (ALOS-PRISM)

Lecturer: Prof. Armin Gruen, ETH, Switzerland

Maximum Number: 75 persons

Venue: Mongolian University of Science and Technology (MUST)

Date: 8<sup>th</sup> October, 2006

Program:

8<sup>th</sup> October: Sunday

9:00-9:10 Opening

9:10-12:00 Class Room Lecture with Computer Demonstrations: 3D Mapping with  
ALOS PRISM Triplet Data: Prof. Armin Gruen (ETH Zurich,  
Switzerland)

12:00-13:30 Lunch

### Tutorial 3: Web GIS Mapping

Coordinator: Dr. Lal Samarakoon, Geoinformatics Center, AIT, Thailand  
([lal@ait.ac.th](mailto:lal@ait.ac.th))

Local Coordinator: Dr. Tsolmon Renchin (tsolmon@num.edu.mn)

Maximum Number: 25 persons

Venue: NUM-ITC-UNESCO Remote Sensing/GIS Laboratory, National University of  
Mongolia

Date: 8<sup>th</sup> October, 2006

9:00-9:15 Opening

9:15-12:00 Hands on Training: Open Source Web GIS Mapping:

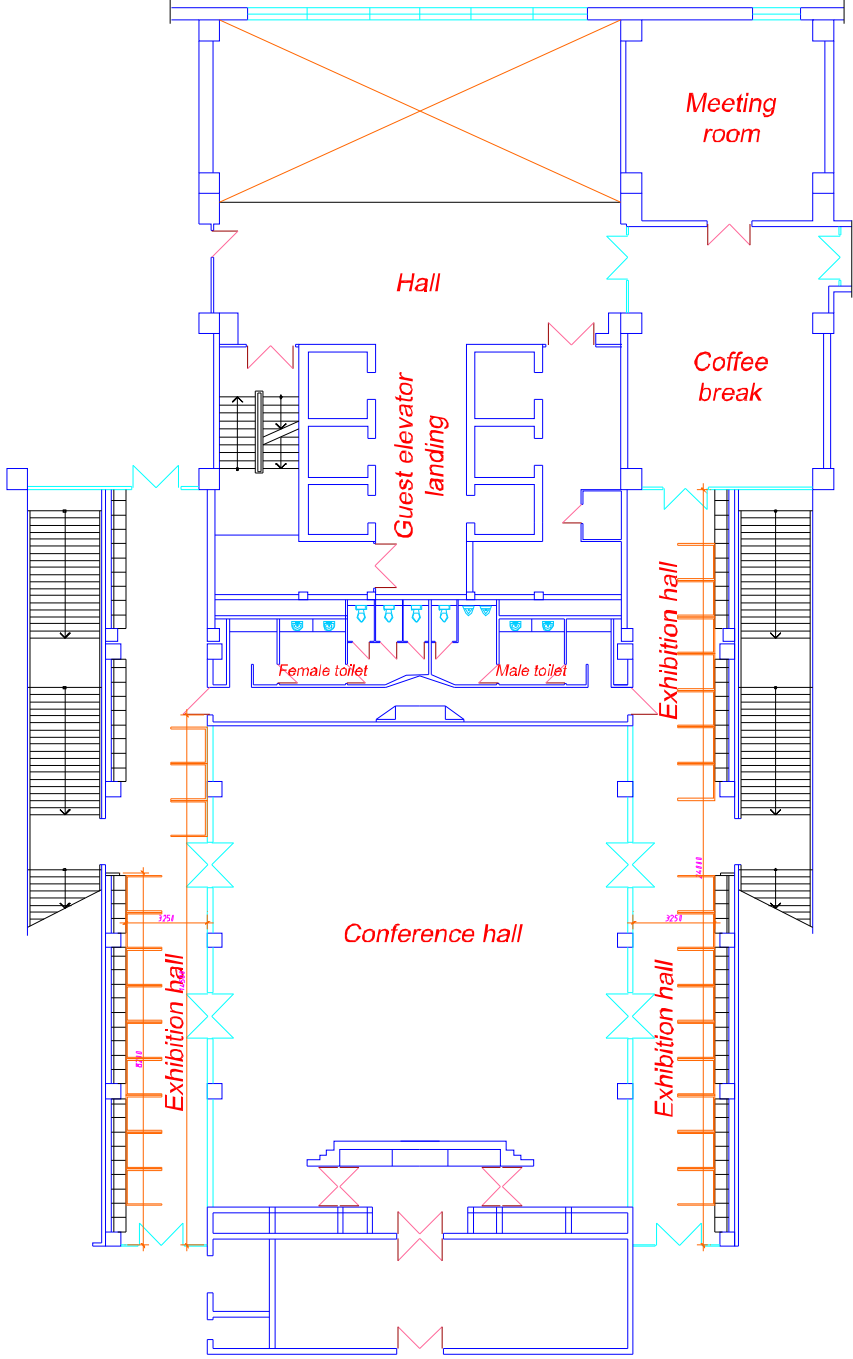
12:00-13:30 Lunch

13:30-16:30 Continued

16:30-17:00 Closing



**Floor Plans**



## ***Exhibition***

### **Exhibition Schedule:**

#### **October 8 – 12, 2006 , Ground Floor, Chinggis Khaan hotel**

October 8, Sunday

Afternoon ( 13.00 – 21.00 ) - Preparation

October 9, Monday

Morning ( 09.00 – 13.00 ) - Preparation

Afternoon ( 15.00 – 18.00 ) - Opening the exhibition at 15.00

October 10, Tuesday ( 10.00 – 18.00 ) – Exhibition

October 11, Wednesday ( 10.00 – 18.00 ) – Exhibition

October 12, Thursday

Morning ( 10.00 – 13.00 ) - Exhibition

Afternoon ( 14.00 – 18.00 ) – Closing and taking out the exhibition

### **List of Exhibitors:**

1. JAXA ( Japan )
2. RESTEC ( Japan )
3. ERSDAC ( Japan )
4. ITT VISUAL INFORMATION SOLUTIONS ( Japan )
5. DIGITAL GLOBE ( USA )
6. CNCRS ( Chinese National Committee for Remote Sensing, China )
7. BEIJING SPOTIMAGE ( France )
8. GAIA3D ( South Korea )
9. LEXICAL TECHNOLOGY ( Singapore )
10. GISTDA ( Thailand )
11. MAGRES ( Malaysia )
12. MONMAP ( Mongolia )
13. MONGOLIAN ORGANIZATIONS: University, School, Agencies and Companies