

## **6th International Symposium on Integrated Field Science -Understanding for each and integrated ecosystem using remote sensing-**

**Date:** 26(Sat)-28(Mon) July 2008

**Place:** No.1 Room, Lecture Building, Department Agriculture, Tohoku University,  
Tsutsumidori-Amamiyamachi 1-1, Aoba-ku, Sendai, Miyagi, Japan, 981-8555

International Symposium of Integrated Field Science is held every year since 2003, and the symposium themes are important topics for the integrated field science. Understanding for each and integrated eco-system is important for sustainability on the earth. We would like to discuss each and integrated eco-system using remote sensing.

### **Morning 26 July 2008 (Sat)**

- 09:30-09:50 Opening Ceremony, Chairperson: Genya SAITO (Tohoku Univ.)  
Yutaka NAKAI (Director General of Field Science Center, Tohoku Univ.) Welcome address  
Masahiro KAWASAKI (President of RESTEC) Congratulatory address; (Reading the message by Tamotsu IGARASHI in RESTEC)
- 09:50-12:30 Keynote Presentation, Chairperson: Genya SAITO (Tohoku Univ.)  
Joji IISAKA (Univ. of Victoria, Canada) Fusion of Field Science and Remote Sensing: "How to establish strategic approach for Global Environment Science"  
Christopher D. ELVIDGE (NOAA USA) View of humanity from space.  
Lilik Budi PRASETYO (Bogor Agricultural Univ., Indonesia) Cause and Prediction of Deforestation in Java Island: Spatial Modeling Approach  
Wei ZHANG (China Agricultural Univ.) Grassland Degradation and Recovery Based on Remote Sensing and GIS Inner-Mongolia  
Satsuki MATSUMURA (Ocean Remote Sensing Expert) End user's eye-view for oceanography and remote sensing  
Tsuyoshi AKIYAMA (Gifu Univ.) Satellite ecology, an attempt for linking remote sensing and ecology for river basin studies  
Olaf NIEMANN (Univ. of Victoria, Canada) Integration of airborne technologies and fusion of multisensor data to enhance the remote sensing of forested environments

### **Afternoon 26 July 2008 (Sat)**

- 14:00-15:30 Session A: Optical Sensor, Chairperson, Yukio KOSUGI (Tokyo Tech. Univ.)  
Naoko KOSAKA (Tokyo Tech. Univ.) Agricultural field observation using hyperspectral sensor in Syonai  
Yukio KOSUGI (Tokyo Tech. Univ.) Low-Altitude Hyperspectral Imaging of Naruko Integrated Field for the Interpretation of High-Altitude Observations  
Yasushi YAMAGUCHI (Nagoya Univ.) Estimation of regional evapotranspiration by ASTER  
Yoshiaki HONDA (Chiba Univ.) A study on possibility of land products in GCOM-C/SGLI (Presentation by Koji KAJIWARA, Chiba Univ.)  
Shigeo OGAWA (NIRE) Detection of land use changes in Tsukuba City area using satellite data and GIS data
- 15:40-15:00 Session B: SAR, Chairperson, Motoyuki SATO (Tohoku Univ.)  
Motoyuki SATO (Tohoku Univ.) Polarimetric SAR Approaches to Integrated Field Sciences  
Manabu WATANABE (Tohoku Univ.) Soil moisture estimation by PALSAR in Sendai (Presentation by Motoyuki SATO)

Masayoshi MATSUMOTO (Tohoku Univ.) Observation of Double Bounce Scattering from Trees by GB-SAR  
 Naoki ISHITSUKA (NIAES) Application of PALSAR data for agricultural managements

## 17:30-19:00 Reception

### Morning 27 July 2008 (Sun)

- 09:00-10:00 Session C: ALOS, Chairperson: Tamotsu IGARASHI (RESTEC)  
 Tsutomu YAMANOKUCHI (RESTEC) Application of ALOS data for glacial lake outburst flood (GLOF) at Bhutan  
 Chinatsu YONEZAWA (Miyagi U.) Inventory and monitoring of waste disposal by ALOS and Quickbird imagery  
 Daiji ASAKA (Hokkaido Central Agriculture Experiment Station) Understanding of planted crops using AVNIR-2 data  
 Genya SAITO (Tohoku Univ.) Agricultural Monitoring Using ALOS Data
- 10:05-11:05 Session D: Forest, Chairperson, Masato KATO (Shinshu Univ.)  
 Takuhiko MURAKAMI (Niigata Univ.) Non-Reforestation Area Project in Kyushu Island, Japan: Role of Multi-Temporal LANDSAT/TM Data  
 Masato KATO (Shinshu Univ.) Forest observation from high spatial resolution image  
 Nobuyuki ABE (Niigata Univ.) Estimation of carbon stock in even-aged Sugi forests using Satellite image Data  
 Haruo SAWADA(Tokyo Univ.) Annual Changes of Growth Condition of Forests in Russia
- 11:10-1:55 Session E: Grassland and arable land, Chairperson: Tsuyoshi AKIYAMA (Gifu Univ.)  
 Ayumi FUKUO (JIRCAS and Thoku U.) Monitoring of Inner Mongolia grassland using remote sensing, GIS and GPS (Presentation by Tsuyoshi AKIYAMA)  
 Satoshi UCHIDA (JIRCAS) Recent Expansion of Paddy Field Area in the Heilongjiang Province of China Detected by Using Remote Sensing Data  
 Daisuke KUNII (Tohoku Univ.) Analysis for Relationship between the Land Use of the Watersheds and the Marine Nutrients in the Rivers using Remote Sensing and GIS.

### Afternoon 27 July 2008 (Sun)

- 13:30-15:20 Session F: Ocean, Chairperson: Hiroshi KAWAMURA  
 Mitsuhiro TORATANI (Tokai Univ.) Annual and seasonal variability of chlorophyll-a concentration in the Upper Gulf of Thailand  
 Seiichi SAITO (Hokkaido Univ.) Operational fisheries oceanography using satellite remote sensing and marine-GIS for sustainable fisheries  
 Futoki SAKAIDA (Tohoku Univ.) New Generation Sea Surface Temperature  
 Teruhisa SHIMADA (Tohoku Univ.) Ocean surface winds and wind waves in the coastal zone using high-resolution satellite observations  
 Hiroshi KAWAMURA (Tohoku U.) High-resolution satellite oceanography for monitoring the Tohoku coastal seas  
 Osamu ISOGUCHI (Tohoku Univ.) Quasi-stationary jets between the subtropical and the subarctic gyres in the North Pacific
- 15:30-17:00 Session G: DMSP, Chairperson: Chris Elvidge (NOAA) - 7th DMSP international meeting -  
 Chris ELVIDGE (NOAA) Advances in DMSP products, services, and findings  
 Seiichi SAITO (Hokkaido Univ.) Prediction of Japanese common squid (*Todarodes pacificus*) potential fishing grounds using GAM and GLM with satellite remote sensing data in the Japan Sea  
 Masanao HARA (VTI) Presumption of carbon-dioxide emissions by nighttime lights observed by DMSP/OLS (Presentation by Genya SAITO)

Kan-ichiro MATSUMURA (Kansei Gakuin Univ.) Combining DMSP datasets with Google Maps and its Impacts

Toshinari KIMURA (Kyoto Univ.) Study plan using DMSP/OLS

17:00-17:30 Closing Ceremony

All participants, Statement of 6th IS-IFS - Recommendation of Earth Observing System to JAXA-Genya SAITO (Deputy Director General of Field Science Center, Tohoku Univ.) Closing Remarks

**All day, 28 July 2008 (Mon.)**

Field trip using Small Bus:

Amamiya Campus of Tohoku University -> Kawauchi Campus -> Botanical garden of Tohoku University -> Mt. Aoba -> Amamiya Campus