</body>

SeTBio
Sensing Technologies for Biomaterial,
Food, and Agriculture

23 - 26 April 2013
Pacifico Yokohama
Yokohama, Japan

SeTBio 2013: Sensing Technologies for Biomaterial, Food, and Agriculture

SPIE SeTBio 2013, the 1st International Conference on Sensing Technologies for Biomaterial, Food, and Agriculture, covers light application technology for plant factories and environmental control, for precision agriculture, and for bio-sensing.

SeTBio 2013 Technical Conference Topics

Light and plant factories

Light and precision agriculture

Light and bio-sensing

2013 Conference Chair

Naoshi Kondo, Kyoto Univ.

Tuesday, April 23

15:40-15:45   Opening   Room 311+312
Opening Remarks
15:40   *N. Kondo, Conference Chair of SeTBio'13*
              *Professor, Graduate School of Agriculture, Kyoto
              University, Japan*

15:45-18:00   SeTB1 : Light and Plant Factory
                                       Room 311+312
Chair: I. Farkas, *Program Committee Member,* Szent István
University, Hungary (Tentative)
Co-Chair: H. Shimizu, *Vice Chair of Program Committee,*
Kyoto University, Japan (Tentative)

SeTB1-1   **(Invited) Advanced Technologies for Plant
              Factory**
15:45   *Haruhiko Murase*
              Osaka Prefecture University, Japan
SeTB1-2   **Development of a Monitoring System
              Technology Suitable for Production Process
              Monitoring in Small Scale Protected
              Horticulture**
16:15   *Y. Nakanishi, and R. Kudo*
              Shikoku Research Institute Inc, Japan
SeTB1-3   **Efficient Plant Growth Using Automatic
              Position-Feedback Laser Light Irradiation**
16:30   *Y. Kakinoki, Y. Kato, K. Ogawa, A. Nakao, Z.
              Okai, and T. Katsuyama*
              *Graduate School of Engineering, University of
              Fukui, Japan*
SeTB1-4   **Effect of Photoperiod on Flowering of Cypress
              Vine (*Ipomea quamoclit L.*)**
16:45   *Y. Koike*
              *Faculty of Agriculture, Tokyo University of
              Agriculture, Japan*
SeTB1-5   **(Invited) Current State and Research Trend in
              Light Environment for Plant Factory**
17:00   *Hiroshi Shimizu*
              Kyoto University, Japan
SeTB1-6   **Comparison on Machine Vision System for
              Sorting Melon Seedling on Grafting Robot**
17:30   *S.Tian, S. Dong, J. Yang, and T. Li*
              *Key Laboratory of Protected Horticulture,
              Shenyang Agricultural University, China*
SeTB1-7   **Computer Vision Methods for Greenhouse
              Irrigation Control**
17:45   *I. Farkas*
              *Department of Physics and Process Control,
              Szent István University, Hungary*

Wednesday, April 24

9:00-11:45   SeTB2: Light and Precision Agriculture
                                       Room 311+312
Chair: S. Shibusawa, *Vice Chair of Program Committee,*
*Tokyo University of Agriculture and Technology, Japan
(Tentative)*

SeTB2-1   **(Invited) Multi-scale Photonics for Precision
              Agriculture**
9:00   *Josse De Baerdemaeker*
              *Division of Mechatronics, Biostatistics and
              Sensors, MeBioS - KU Leuven, Belgium*
SeTB2-2   **Mapping Wetland Cover Types Using Remote
              Sensing and GIS in Can Gio Mangrove
              Biosphere Reserve, Vietnam**
9:30   *P. Tien Dat[1], and K. Yoshino[2]*
              *[1]Center for Agricultural Research and
              Ecological Studies (CARES), Hanoi University of
              Agriculture (HUA), Vietnam, [2]Faculty of
              Engineering, Information and Systems, University
              of Tsukuba, Ibaraki, Japan*
SeTB2-3   **Spectral Imaging Analysis for Silkworm
              Gender Classification**
9:45   *S. Sumriddetchkajorn[1], C. Kamtongdee[2], and C.
              Sa-NgiamSak[2]*
              *[1] Intelligent Devices and Systems Research Unit,
              National Electronics and Computer Technology
              Center, Thailand, [2] Department of Electrical
              Engineering, Khon Kaen University, Thailand*
SeTB2-4   **The Potential of Visible-Near Infrared
              Spectroscopy for Mapping of Multiple Soil
              Properties Using Real-Time Soil Sensor**
10:00   *B. S. N. Aliah[1], M. Kodaira[2], and S. Shibusawa[2]*
              *[1] United Graduate School of Agricultural Science,
              Tokyo University of Agriculture and Technology,
              Japan, [2] Institute of Agriculture, Tokyo
              University of Agriculture and Technology, Japan*

----- Break （10:15-10:30） -----

Chair: F. Giametta, *University of Molise, Italy (Tentative)*
SeTB2-5   **Vibration Analysis Using a Contactless
              Acquisition System**
10:30   *P. Catalano[1], F. Fucci[1], F. Giametta[1], G. La
              Fianza[1], and B. Bianchi[2]*
              *[1] University of Molise, Italy, [2] University of Bari,
              Italy*
SeTB2-6   **Proposal of Optical Farming -Development of
              Several Optical Sensing Instruments for
              Agricultural Use-**
10:45   *Y. Saito [1], and K. Kobayashi [2]*
              *[1]Faculty of Engineering, Shinshu University,
              Japan, [2]Graduate School of Science and
              Technology, Shinshu University, Japan*
SeTB2-7   **Monitoring System for Yield Qualities of
              Paddy**
11:00   *M. Jahari[1], K. Yamamoto[1], M. Miyamoto[2], N.
              Kondo[1], and Y. Ogawa[1]*
              *[1]Graduate School of Agriculture, Kyoto
              University, Japan, [2] Yanmar Co., Ltd, Japan*
SeTB2-8   **Application of Visible-Shortwave Near
              Infrared Spectrometer to Predict Sugarcane
              Quality Based on Different Sample Forms**
11:15   *N. M. Nawi [1,3], G. Chen [1,2], and T Jensen [1,2]*
              *[1]Faculty of Engineering and Surveying,
              University of Southern Queensland, Australia,
              [2]National Centre for Engineering in Agriculture
              (NCEA), University of Southern Queensland,
              Australia, [3]Department of Biological and
              Agricultural Engineering, Faculty of Engineering,
              Universiti Putra Malaysia, Malaysia*
SeTB2-9   **Fusion of Image and Laser-Scanning Data in a
              Large-Scale 3D Virtual Environment**