

International Workshop on
“Symbiosis of Science & Technology with
Human, Society & Environment”
(IWS-SYMBIO)

This International Workshop on “Symbiosis of Science & Technology with Human, Society & Environment” (IWS-SYMBIO) is a special program at “The 1st International Symposium of Kyoto University Global COE Program: Energy Science in the Age of Global Warming- Toward CO2 Zero-emission (ZERO-CARBON ENERGY Kyoto 2009), August 20-22, 2009, Kyoto University, Kyoto City, Japan”.

The title of the workshop, “Symbiosis of Science & Technology with Human, Society & Environment” itself represents the reality regarding the relation of Science & Technology to Human, Society & Environment today, and the Global Warming may be ascribed to this issue.

In this IWS-SYMBIO, “Symbiosis of Science & Technology with Human, Society & Environment” will be discussed by the collaboration of system scientists and psychologists on why to re-consider and how to re-design more anthropocentric way than by many diversified ways. The subjects to be dealt in the workshop will be the design, analysis and evaluation of the three selected issues of (i) intelligent machine, (ii) value-added automation, and (iii) learning organizations, from the common aspect of “human symbiosis with technologies in future”.



Hidekazu Yoshikawa, Ph.D.
President, Symbio Community Forum, Kyoto, Japan

Time :

August 21, 2009, 10: 00 – 17:00

Venue :

Clock Tower Centennial Hall, Main Campus of Kyoto University

(<http://www.kyoto-u.ac.jp/en/clocktower>).

Co-organizers:

Grant-in-Aid Creative Scientific Research Project on “Design Theory for Dynamical Systems with Semiosis”

Kyoto University Global COE Program “Energy Science in the Age of Global Warming – Toward CO2 Zero-emission –

Non-Profit Organization Symbio Community Forum

In Cooperation with:

Japan Institute for Group Dynamics

Human Interface Society of Japan

Research Division of Human-Machine Systems, Atomic Energy Society of Japan

Program:

=Morning Workshop Session (10:00-12:30)=

“Unified Concept of Intelligence Distributing among Human, Machine and Environment: Semiotic Design of Intelligent Machines for Nurturing Human”

Organizers: Prof. Tetsuo Sawaragi (Kyoto University)

Dr. Meike Jipp (University of Heidelberg, Germany)

(Supported by a Grant-in-Aid Creative Scientific Research 2007-2011 (19GS0208) funded by the JSPS)

1) Semiosis as the Core of Systemic Intelligence for Realizing Human-Machine Symbiotic Systems

[Prof. Tetsuo Sawaragi](#)

Department of Mechanical Engineering and Science, Graduate School of Engineering, Kyoto University, Japan.

2) The Structured Intelligence Approach for the Modeling of Intelligent Behaviour

[Prof. Dr.sc.techn. Essameddin Badreddin](#)

Automation Laboratory, Institute of Computer Engineering, University of Heidelberg, Germany.

3) Application of Psychological Knowledge for Designing Usable and Adaptive Complex Systems

[Dr. Meike Jipp](#)

Automation Laboratory, Institute of Computer Engineering, University of Heidelberg, Germany.

4) Semiotic Analysis of the Symbiotic Design of Townscapes for Sustainable Environment

[Prof. Teruyuki Monnai](#)

Department of Architecture and Architectural Engineering, Graduate School of Engineering, Kyoto University, Japan

(Lunch Break)

=Invited Lecture (13:30-14:45)=

Title:

Automation in context: Beyond islands of knowledge and technologies

Speaker :

[Prof. Morten Lind](#)

Department of Electrical Engineering, Technical University of Denmark, Denmark

Chaired by:

Professor Hidekazu Yoshikawa (Professor Emeritus Kyoto University)

(Supported by G-COE Energy Science, Kyoto University)

(Coffee Break)

=Afternoon Workshop Session (15:00-17:00)=

“New Approach of Activity Theory in Highly Safety-Critical Industrial Organizations”

Organizers: [Prof. Toshio Sugiman](#) (Kyoto University)

[Professor Leena Norros](#) (VTT Technical Research Centre of Finland)

(Supported by G-COE Energy Science, Kyoto University)

(Adjourn)