



Message from the Director and Dean

In October 2009, we celebrated our first anniversary in our new home on the Hiyoshi Campus with a number of exciting events such as to confer the degree of Doctor of System Design and Management, Keio University, honoris causa upon His Excellency Dr. Jan Balkenende, Prime Minister of the Kingdom of the Netherlands and the signing of a partnership agreement on academic linkage and collaboration with the Delft University of Technology (TU Delft) Faculty of Technology, Policy & Management (TPM), which was witnessed by His Excellency Dr. Ronald Plasterk, the country's Minister of Education, Culture and Science. The Netherlands is a relatively small country with a population of only 16 million, but Japan can learn a lot from its design of large systems - for example, home to two of Europe's largest hubs, the Port of Rotterdam and Schiphol Airport and its highly regarded work-sharing program. We look forward to further strengthening our ties of collaboration with TPM.



Yoshiaki Ohkami
Director, SDM Research Institute
Dean, Graduate School of System Design and Management

News

TOPIC 1

Signing a partnership agreement with TU Delft TPM: Ceremony attended by Minister Plasterk of the Kingdom of the Netherlands

Thanks to the generous support of the Embassy of the Netherlands in Japan, the SDM was able to sign a Memorandum of Agreement (MoA) with the TU Delft TPM for personnel exchange and joint research between the two institutions. On October 26, we held a signing ceremony in the CDF Room of the Collaboration Complex with a guest, Minister of Education, Culture and Science Dr. Ronald Plasterk of the Kingdom of the Netherlands, who visited Japan at the time. That same day, the Graduate School of Media Design (KMD) signed an MoA with the Department of Industrial Design of the Eindhoven University of Technology,



SDM Dean Ohkami welcomes Minister Plasterk

another Dutch institution.

Also in attendance at the signing ceremony were President Atsushi Seike and Vice President Toshiaki Makabe. In his remarks, President Seike noted, "Keio University was founded in 1858 by Yukichi Fukuzawa as a means to bring Dutch Studies to Edo. This year marks the 400th anniversary since Tokugawa Shogunate first issued the trade license to the Netherlands, which established trade relations between the two countries. We have indeed enjoyed a very long friendship. I hope that the two collaboration agreements that we have signed today will provide further impetus and depth to our relationship." Prior to the signing ceremony, Minister Plasterk toured the SDM and viewed the on going research. The SDM provided demonstrations of "visualization of earthquake data using network-immersed



Minister Plasterk uses the seamless positioning system virtual environments" (Professor Tetsuro Ogi), "indoor and outdoor positioning information systems using space technology" (Associate Professor Naohiko Kotake), and a "next-generation three-dimensional displays without glasses" (Hiroaki Daigo, doctoral student).

The SDM and the TPM have already begun an exchange of three masters students each, and under the new partnership agreement look forward to more joint research projects as well.

TU Delft TPM - Keio SDM First Joint Workshop 2009



Breakfast meeting

After the signing ceremony, the SDM welcomed Rector Fokkema of TU Delft and 15 faculty members from the TPM to their 1st joint workshop (Beyond Our Imagination: Visualization for Decision Making: Modeling, Simulation and Serious Gaming for Socio-Technical Systems in a Global Context) held from October 26 to 28 to discuss directions for collaboration over the next five years. Approximately 40 participants from the SDM, Graduate School of Science and Technology and other interested organizations attended and enjoyed exchange of opinions in various

discussion styles. The workshop began with an early breakfast meeting on October 26, moved on to the signing ceremony and was followed by keynote speeches from Professor Nishimura, Professor Verbraeck and Professor Ueda (Graduate School of Science and Technology). Afterwards, participants were broken into four breakout sessions (see list below) with two cochair professors, one from each department. The participants then gathered together for a wrap-up and intermediate conclusion discussion before meeting again in the morning of October 28 to discuss directions for future collabora-

tion. The name of the collaboration project is "Konpasu." It is taken from the Dutch word, Kompas in Japanese way of spelling.

Break Out A	Intelligent Global Infrastructure and Dispersed Service Production Delivery
Break Out B	Large Scale Emergency and Disaster Mitigation: Earthquake and Flooding
Break Out C	Global Integrated Risk Assessment: Managing Safety and Sustainability in Earth System Governance
Break Out D	Sustainable Manufacturing and Intelligent Global Transport



Rector Fokkema of TU Delft



Breakout sessions

Honorary doctorate awarded to Prime Minister Jan Peter Balkenende of the Kingdom of the Netherlands

At the recommendation of the SDM, Prime Minister Jan Peter Balkenende of the Kingdom of the Netherlands was awarded an honorary doctorate from Keio University. The ceremony took place in the North Hall on the Mita Campus of Keio University, beginning at 9:40, October 27. The festivities started with a chorus

sung by the Wagner Society, followed by the entrance of Prime Minister Balkenende. Associate Professor Tetsuya Toma served as Master of Ceremonies, and the recommendation was read by SDM Dean Yoshiaki Ohkami. Following this, President Seike awarded the degree with a short speech. In response, Prime Minister Balkenende gave a

speech entitled "Japan and the Netherlands: Working Together to Address Global Challenges." This was followed by a question-and-answer session with Prime Minister Balkenende for students in the SDM including exchange students from the TU Delft TPM. It was a valuable opportunity for students from both countries.



President Seike awards the honorary degree



Speech by Prime Minister Balkenende



Aya Onoe, a student in masters program at SDM, asks a question

TOPIC 4 Special SDM lecture sponsored by Nikkei Inc.: "Energy Management in Low-Carbon Societies"



Mr. Yoichi Kaya (Vice President, Research Institute of Innovative Technology for the Earth) delivers the 2nd lecture



Packed lecture venue

There held a series of open lecturers, "Special SDM Lectures" on "Energy Management in Low-Carbon Societies" sponsored by Nikkei Inc. in five Friday evenings in October. As a registered course of the Yokohama Eco School (YES), every time the lecture hall was filled with 200-250 participants not only students but also residents nearby.

From the view point of experts in leading positions in energy management, all five lecturers discussed the current status, issues and initiatives for the future in their areas of expertise based on rich data and experience followed by an enthusiastic question-and-answer sessions with the audience.

Professor Shuzo Murakami (Chief Executive, Building Research Institute; professor,

SDM) oversaw the planning of the series and delivered its first lecture, which was on the theme of "Energy Management and the Implications for Housing, Architecture and Cities." He explained current architecture and energy consumption patterns in urban environments and provided detailed explanation of the importance of being able to "visualize" the environmental performance of cities and the need for a new urban assessment tool called "CASBEE." He concluded by emphasizing the extraordinarily large spillover effects that can be achieved when technology to "visualize" urban environments is used to share success stories of carbon emission reduction with the general public.

The Hiyoshi Campus Collaboration

Complex, where the SDM is located, was awarded the highest "S" rank as the first building to be certified by CASBEE Yokohama, according to Professor Murakami.

SDM and its cosponsor, the "Center for Education and Research of Symbiotic, Safe and Secure System Design" in the Global COE Program are planning to publish the lectures in a separate volume.



Professor Murakami's lecture

TOPIC 5 JAXA Seminars for Basic SE and Intermediate SE (B)



Lecture at the JAXA SE Intermediate (B) seminar

Last year, Keio University and the Japan Aerospace Exploration Agency (JAXA) launched a joint "Systems Engineering (SE) Training" program, and most recently held courses for the Intermediate SE (B) and Basic SE on October 20 to 22 and October 26 to 27 respectively. The Intermediate SE (B) course featured Professor Heinz Stoewer (TU Delft), who gave lectures on the rela-

tionship between project management and systems engineering in space development. In the Basic SE course Mr. Seiko Shirasaka (Associate Professor, SDM; Mitsubishi Electric), who was involved in the development of the HTV that successfully docked with the International Space Station, gave lectures mainly on systems thinking, the SE process, integration and verification.

TOPIC 6 SDM Research Institute symposium on "Training the Next Generation of Super Engineers"

Coordinator: Professor Shoichi Sasaki

On October 18, Mr. Shinzo Kobuki (Toyota Motor), Mr. Ken Kamikochi (Tokyo Marine & Nichido Risk Consulting) and Mr. Toshijiro Ohashi (Japan External Trade Organization) were invited as lecturers and later to join Dean Ohkami for a panel discussion on what universities, companies and society as a whole should

do to train the next generation of "super engineers." Though held on a Sunday, the event attracted more than 50 participants, who enjoyed a deep and wide-ranging discussion. It was a valuable symposium with many insights into course development for training super engineers of the future.



Symposium panelists: (From left) Mr. Kamikochi, Mr. Kobuki, Mr. Ohashi and Director Ohkami; Coordinator: Professor Sasaki

TOPIC 7

ALPS #3 was held in September

The third session of this year's Active Learning Project Sequence (ALPS), an international program involving Stanford University, MIT and Keio University, was held on September 25-26. Professor de Weck of MIT provided a remote lecture on efficient experiment planning involving unascertainable objects. After a detailed explanation of techniques and approaches, an experiment was conducted in categorizing paper airplanes by the ways in which they are folded and then measuring the sweptback angles of the wings and center

of gravity of the airplanes to observe their impact on flight properties. Groups in the

program also reported on the progress they have made on their themes of study.



Real-time remote lecture from MIT



Paper airplane experiment demonstrates experiment planning techniques

TOPIC 8

New Students Welcoming Ceremony for Fall 2009 Enrollees

A New Students Welcoming Ceremony was held for new students enrolling in the 2009 Fall Semester on September 24, at the Mita Campus of Keio University.

Following the ceremony, new students and exchange students adjourned to the Hiyoshi Campus for guidance from SDM. SDM welcomed a total of 19 students, four

in the doctoral course and 15 in masters course (seven of the 19 are international students).

TOPIC 9

Presentations by SDM doctoral students

On October 3, research presentations were held where each doctoral student gave a 30 minute presentation followed by a QA session about their

research. Doctoral students have such opportunities several times during their doctoral program. All students who start together gather to check their progress and

discuss directions for their theses under the instructions of professors.

TOPIC 10

Professor Hibiya receives "2009 Award for Research into Welding Arc Physics" from the Japan Welding Society

Professor Taketoshi Hibiya was awarded the 2009 Award for Research into Welding Arc Physics for his investigations of "Measurement of surface tension of liquid stainless steels using account of the dependence on atmospheric oxygen partial pressure." by the Committee on Welding

Technique Research of the Japan Welding Society to receive. Welding is a widely used technology for products and structures where safety and security are paramount, including automobiles, nuclear reactors, ships, bridges and plants. Surface tension controls the heat/mass transfer in the welding pool and impacts their weldability. This research underscores the importance of dependence on the partial pressure of atmospheric oxygen.

Professor Hibiya is responsible for one of the most important courses in the SDM, "Communications". He is known for his passionate, enthusiastic lectures and speeches that underscore not only the need for linguistic and presentation skills, but

also the importance of "being able to see the forest" in terms of historical and cultural factors in order to achieve mutual understanding. At the same time, he also undertakes ambitious research in the extremely basic field of materials science, and emphasizes the importance to creativity of "being able to see the trees." The award provides a seal of approval to the professor's philosophy and is a source of pride for the SDM.



Professor Taketoshi Hibiya



Note: Lab profiles do not appear in this issue because of the feature on the Netherlands Events.



SDM Research Institute, Graduate School of System Design and Management at Keio University
Collaboration Complex, Keio University, 4-1-1 Hiyoshi, Kohoku-Ku, Yokohama, Kanagawa 223-8526
Tel : 045-564-2518 Fax : 045-562-3502 E-mail : sdm@info.keio.ac.jp

* Please put "SDM Research Institute" in the subject when communicating by fax or e-mail.

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