SDM
System Design and Management
NEWS

September 2010

SDM students and professors visiting Kashiwazaki Kariwa nuclear power station

Message from the Director and Dean

While Japan's global influence is now considered to be the most important issue in its efforts to revitalize its society and regain its power on the world stage, SDM is playing a role in Japan's internationalization efforts.

GLOGIFT2010, the international conference covered in the last edition of SDM News, marked the beginning of our collaboration with the Indian Institute of Technology. Prof. Thong Ngee Goh, the key person in systems engineering in National University of Singapore, and Dr. Hiroshi Fujiwara, President of Internet Research Institute, Inc., spoke of the importance of cross-border entrepreneurialism in their inspirational keynote lectures at the conference.

The student exchange program with Delft University of Technology, launched last year with three students from each university, will increase to five students this year, and possibly six, as the maximum. We also concluded student exchange programs with the Swiss Federal Institute of Technology Zurich, Politecnico di Milano and Institut National des Sciences Appliquees de Toulouse. Many SDM students are eager to study abroad. The internationalization of SDM is rapidly progressing.

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

News

TOPIC 1

Special Lecture by Ambassador Ichiro Fujisaki

SDM invited Japan's Ambassador to the United States to hold a special lecture titled "New Cooperation between Japan and the U.S." on August 4, 2010. Ambassador Ichiro Fujisaki, a graduate of Keio University, is serving his second year in this important post. In addition to his normal duties, he has been working to establish new cooperation between Japan and the U.S. in Japan's world-class technology fields, such as arterial high-speed train systems and nuclear power systems. The lecture attracted many business people, researchers, and students from Keio and other universities. Afterward, Ambassador Fujisaki hosted a lively Q&A session.

He illustrated the power and appeal of today's Japan, and stressed that Japanese companies have good potential to further succeed in the U.S., so Japanese students must improve their English communication skills. Attendees listened attentively and took notes as Ambassador Fujisaki summarized his presentation in English to U.S. government officials in the audience.

It's been 50 years since the revision of the Japan-U.S. Security Treaty. Ambassador Fujisaki said it is time to strengthen the relationship. He also stated that the top priority is to reach agreement on the transfer of the Futenma Airbase and pointed out the importance of collaboration between Japan and the U.S. on the issue of nuclear development in Iran.

Ambassador Ichiro Fujisaki

The Special Lecture

TOPIC 2 Visit to Kashiwazaki Kariwa Nuclear Power Station

Lecture by Deputy Director Hayashi

SDM students listening to the explanation

Prof. Hibiya and other visitors

A total of 33 SDM students and professors, including Dean Yoshiaki Ohkami, visited Tokyo Electric Power's Kashiwazaki Kariwa nuclear power station in Niigata prefecture on August 11, 2010. Their visit was based on SDM's close relationship with Tokyo Electric Power Company; the company's Vice President Fujiwara has given a special lecture at SDM, and the company has supported its employees in their studies at SDM. The director of the power station, Mr. Yokomura, began the meeting with greetings and the deputy director, Mr. Hayashi, reviewed the history of the plant and gave an update on the station, which was affected by an earthquake in 2007. On the plant tour, the SDM group heard a lecture on the structure and safety design of the station before entering Unit 4 of the power plant. The unit has not operated since the earthquake hit the region. They toured the facilities, including the central control room, and areas that are prohibited during operation, such as the area for nuclear reactor containment. SDM students and professors asked many questions about one of the largest scale systems in Japan, and gained an understanding of its process of recovery from the disaster.

TOPIC 3 The third workshop of 2010 Design Project ALPS

Lecture by Prof. Kohtake

Students concentrating on the lecture

Lecture by Prof. Haruyama

Party time

The third workshop of 2010 Design Project ALPS, a course sponsored by The Norinchukin Bank was held on August 6 and 7.
Seventeen student groups gave interim presentations in English on new services and products relating to "safe and secured system design." To realize "safety and security," the theme of 2010 ALPS, it is important to ensure that complex systems run without failure. Therefore, FMEA (failure mode and effect analysis) and analysis of dependence between tasks in complex systems, and DSM (design structure matrix) were topics of the workshop. Concepts of user interface and rapid prototyping were also covered. After the workshop, the instructors and students enjoyed the party that student volunteers had organized—especially their own dance.

TOPIC 4 SDM Information Session


Prof. Teshima counsels an attendee


Prof. Ogi counseling

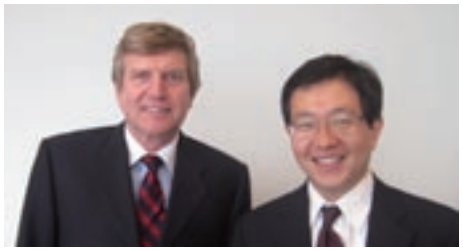

Prof. Toma explains about SDM

The SDM Information Session targeting potential SDM applicants for next year was held on August 7 at Hiyoshi Campus. The session, the third one this year, was held on Saturday so that working people could attend. It attracted 33 potential students. A total of 125 people (of which 40% are employed full-time) have attended the three sessions combined. Non-Japanese ALPS instructors, including Prof. Kurt Beiter from Stanford University, joined the session, just as they had in May, to explain the attractive features of ALPS. Prof. Shinichiro Haruyama showed a video of an actual ALPS class. This session focused on the viewpoints of potential applicants and featured a video showing how an SDM working student utilized the skills he acquired at SDM in job interviews. In the questionnaire distributed after the session (83% response rate) 96% of the attendees rated the session as "very good" (62%) or "generally good" (34%). Comments included "it explained SDM's appeal well", "providing students' direct opinions was helpful," and "I appreciated that I could directly talk to professors."

TOPIC 5 Exploring the potential of collaboration with U.S. universities to promoting project management


Prof. Poli at Stevens Institute of Technology


At Saint Mary's University of Minnesota


Prof. Warburton at Boston University

Japanese companies face an uphill battle to win contracts for large-scale projects overseas. Conventional on-the-job training, long practiced in Japanese corporations, has not produced highly qualified managers and leaders who can handle the demands of today's global business operation in which the dynamics often change rapidly. Therefore, fostering future leaders in earlier stages, such as universities and graduate schools, is urgently required.

Prof. Tetsuya Toma is exploring the potential of collaboration in project management education with overseas universities. Project management education in the U.S. is far more advanced thanks to the achievements of the U.S.-based PMI (Project Management Institute). Prof. Toma is a board member of the Japan chapter of PMI, which publishes "Project Management Body of Knowledge" (PMBOK), a textbook used at SDM that has become the global standard for PM education.

Prof. Toma visited three U.S. universities; Stevens Institute of Technology in New Jersey, Saint Mary's University of Minnesota, and Boston University in Massachusetts. All three are officially recognized as schools with high-quality project management education by the Global Accreditation Center (GAC), a PMI organization. Prof. Toma interviewed professors who had helped their university gain GAC recognition to learn about the process and to investigate the curriculum in use at these universities. Prof. Toma also discussed possible collaboration with their students and professors.

Notice The second Project Leader Training Course




The three visiting lecturers for the Project Leader Training Course (from left, Mr. Yoshiyuki Takahashi, Mr. Kunihiko Furuya, and Mr. Mitsugu Iwashita)

The second Project Leader Training Course, improving on the well-received first course last year, will be held in November (first session) and December (second session).

Improvements include:

1) Camp training last four days, shorter than last time. Lectures and exercises are more intensive (two 2-day trips).

2) The interval between the two trips gives the participants a chance to return to their workplaces and practice what they've learned in the course.

3) SDM methodology is put to use to give students more control and to allow them to work with less supervision. It also provides an integrated systems engineering approach, which aids the students in making precise judgments and offering advice based on the overall picture of the project.

The first session will be held on November 11 and 12, and the second one on November 30 and December 1. Applications for the two-session course will be accepted from the end of September. Capacity is limited to 25 people.

▶ http://www.sdm.keio.ac.jp/news/2010/09/27-122234.html

Lab profile

Human System Design Laboratory

Professor Takashi Maeno

After working as a researcher for Canon, Inc., Prof. Maeno was a visiting industrial fellow at the University of California, Berkeley, a visiting professor at Harvard University, and a professor at the Faculty of Science and Technology at Keio University. He has been a professor of the Graduate School of System Design and Management since 2008. His specialties are system design and management methodology, robotics, and science and technology studies.
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What is the Human System Design Laboratory?

Our research topics in the Human System Design Laboratory cover every kind of system relating to humans to further our vision of creating a better world for mankind. The research topics below are just examples; our research is not limited to them. All kinds of cutting edge and multi-disciplinary research is conducted in the lab in terms of systems, from science technology to philosophy and art, with the goal of nurturing the work of a modern-day Socrates or Da Vinci. Over 30 people work in the lab, including students, professors, and researchers. Scientists, engineers, consultants, and company managers discuss and find solutions to all sorts of problems. The seminar is held every Saturday afternoon and we carry on into the evening. Please join us if you are interested.

Lab members

1 System design of community, organization and business

Research includes work on a cooperative pro-environmental behavior model, the role of sustainable NPOs, collaboration between local governments, a new regional collaboration structure of agricultural systems, instilling measures of corporate philosophy, pursuit of shared interests and happiness for employers, employees and society, and development of new comprehensive and consistent marketing methods. System engineering, social psychology, and sociology are the academic bases for this research.

2 System design of human-machine interface

Research on various human-machine interface system designs based on robotics haptic technology are conducted, including communication robot design, active touch panel design, consumer product tactile design, and barrier-free system design. Science and engineering, psychology, art, and ethics are the academic bases for this research.

Joint seminar with Tokyo Institute of Technology

3 System design of education, learning and development

Research of system design and management is conducted to realize systemic and systematic multi-disciplinary education and consulting. System engineering, system science, system philosophy, and system thinking are the academic bases for this research.

4 System design of self

What are “self”, “conscious”, and “qualia”? What are “happiness”, “desire”, “fun”, “symbiosis,” “bliss”, and “enlightenment”? What are “education”, “learning”, “growth”, and “life”? This laboratory’s approach to these first-person (and third-person) issues is multi-disciplinary. System design and management, philosophy of mind, ethics, sociology, psychology, and brain science are the academic bases for this research.

5 Research areas of future interest

To solve global issues that mankind faces, including north-south issues, environmental issues, safety and security issues, the Human System Design Laboratory is hoping to conduct research with a panoramic view by treating any issues as mutually-related system issues, including system design of world peace, culture and civilization, international politics, coexistence of religions, and art (music, art, literature, architecture and craftwork.)

Passionate students, researchers, and joint researchers are needed

If you are passionate about realizing big visions such as “innovation of Japan and the world” and “development of symbiosis of environment, security and world peace” and if you aren’t a pessimist, we’d like to hear from you.

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