



April 2010

At farewell party after commencement ceremony

Message from the Director and Dean

I would like to report the recent internal and international events in the Graduate School of System Design and Management (SDM). On March 29, the commencement ceremony was held on Hiyoshi Campus. Two students were awarded doctoral degrees and 49 students were awarded master's degrees. Almost all of the 17 master's degree students without previous work experience found jobs at their chosen companies and have started their careers. I would like to express my gratitude for your support, which has been instrumental in sending our inaugural master's degree students out into society. We welcomed 57 new students into the master's program and 19 into the doctoral program in our entrance ceremony on April 7. All of the professors at SDM have embraced the challenge of providing the world-class education and research that we offer.

SDM aims to foster international and globally active leaders by adopting comprehensive approaches to design and to manage complex systems. International cooperation and communication in English have been our educational priority since the foundation of SDM, and we have strengthened our relationship with international universities such as MIT in the US and Delft University of Technology in the Netherlands. Since April 2010, we have increased the number of courses taught in English with the support of the Global 30 Program by the Ministry of Education, Culture, Sports, Science and Technology. Now, international English-speaking students can earn

enough credits to obtain a degree. We have recruited a native English speaking Professor, and are offering crash courses from professors in western universities. The contents of the Design Project class (Active Learning Project Sequence (ALPS)), which has been taught in English will be strengthened this year, and we are ready to accept international students. SDM's activities with international universities will continue in May and onward. We are co-hosting a workshop with Delft University of Technology and co-hosting a workshop with Graduate School of Science and Technology, Keio University at the 2010 Renewable Energy International Conference. We are planning to co-host an international conference regarding flexible management with Stevens Institute of Technology in the US and Indian Institute of Technology in India. I believe such events are great opportunities for students to communicate with other future leaders and to add to their awareness of and experience in international settings on their quest to become global leaders. I do appreciate your continued support.



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

News

TOPIC

1

Intensive Course of Requirements Engineering



Mr. Robert Halligan

A five-day intensive course, Requirements Engineering, taught by Mr. Robert Halligan, an internationally known expert in the field of requirements engineering, from Project Performance International, was held from March 1 to 5, 2010. Requirements engineering is the technology required in the first process in system design to analyze, identify, and record the system requirements throughout its entire lifecycle. Using a submarine emergency signal system as an example, students effectively learned a process of requirements engineering to analyze, identify, define, review, control the quality of and manage the requirements for the system through virtual exercises and Mr. Halligan's lectures. Many Japanese and international students attended the course offered in English. This was a great opportunity for students not only to learn about requirements engineering and its techniques through discussion with Mr. Halligan, but also to develop confidence as system designers.

TOPIC 2

PMI-GAC (Global Accreditation Center) Academic Workshop



Representatives from 22 universities attending the academic workshop (Associate Professor Toma, back row far left)

Associate Professor Tetsuya Toma attended the first workshop hosted by PMI-GAC in Japan on March 2 and 3. PMI-GAC is a division of the US PMI (Project Management Institute), the world largest project management organization. It certifies

degree programs in project management in universities and graduate schools, and dispatches instructors from the business world to universities. Currently of the 26 schools in 10 countries that offer certified degree programs, only one is located in Asia (Shanghai Jiao Tong University). None are in Japan.

Seventeen Japanese universities, including Hokkaido University, Waseda University, and Kyushu University attended this workshop and deepened their exchanges with five foreign universities, including Boston University in the US and SKEMA Business School in France. SDM will negotiate with

these foreign and domestic universities for collaboration. The Japanese chapter of PMI (of which Associate Professor Toma is the director for education) is planning to educate not only universities but high schools about the importance of project management so that awareness and training can start at a younger age.

One of the great achievements in this industry is that the three project management organizations, PMI GAC, Engineering Advancement Association of Japan, and Project Management Association of Japan, cooperated to co-host this workshop.

Related link ▶ http://www.pmi-japan.org/news/info/2010_03_04_pmi-gac.php

TOPIC 3

Interviews with Professor Kenichi Takano and Professor Yoshiaki Ohkami by Toyo Keizai

Interviews with Professor Kenichi Takano and Professor Yoshiaki Ohkami were featured in the March 10 issue of the weekly magazine Toyo Keizai. An article titled “System of Risk Management, Looking at

the tree as well as the forest” introduces a way to build a risk management system that covers both the organization and the individual. Please refer to the web page below for more details.

▶ <http://www.sdm.keio.ac.jp/news/2010/04/16-102619.html>



Professor Kenichi Takano and the magazine

TOPIC 4

Special Lecture “OPM with Application to Systems Engineering”



Professor Dov Dori

Professor Dov Dori from Massachusetts Institute of Technology, the founder of OPM (Object-Process Methodology), which

is attracting attention as a new approach to systems engineering, gave a special lecture at SDM on March 26. OPM is a method to creatively design a system by comprehensively visualizing its function, structure and behavior. This system design technique is expected to be applied in science and business areas as well as the development of large scale, complex technological systems. This special lecture was the chance of a lifetime for SDM students to learn directly from and speak with Professor Dori, a leading expert

in the field, who explained the basic concepts of OPM using the design of a bread machine as an example.



Professor Dori giving a special lecture

TOPIC 5

Commencement Ceremony

It's been two years since the establishment of the Graduate School of System Design and Management in April 2008, and the first master's degrees were conferred. A total of 49 students were awarded master's degrees (19 students in System Engineering and 30 students in System Design and Management.) A master's degree in System Engineering is awarded to students who have earned the required credits mainly in technical skill-building subjects, and a master's degree in System Design and Management

is awarded to students who have earned the required credits mainly in social skill-building subjects. Students who have earned the required credits in both areas can choose either one. Two students were awarded doctoral degrees. They were the second and the third doctoral degrees to be conferred by SDM. In the ceremony, Ms. Tomomi Nonaka won the Best Performance award, and 16 students won Outstanding Achievement awards. After Professor Yoshiaki Ohkami's greeting, Special Research Professor Mikako

Hayashi gave a congratulatory address and Tomomi Nonaka gave an address in reply. We expect a lot from these graduates and will follow their careers with great interest.



Professor Ohkami, Dean of SDM awarded the Degrees

Notice

SDM English website revision

The SDM English website was completely revised in April 2010 to make it easier for international students and visitors to find necessary information. The aim of the renewal is to emphasize that makes SDM so attractive to students; small class sizes, research-based education, integration of social and technical areas, melting pot with students with and without work experience, faculty with international work experience, and our strong ties with companies and foreign universities. Please visit our new English website.



▶ <http://www.sdm.keio.ac.jp/en/>

TOPIC 6

Newspaper features article on Noriyasu Kitamura's research



An article featuring the research of Mr. Noriyasu Kitamura, a researcher at SDM Research Institute and Risk Consulting and Senior Researcher at Tokio Marine & Nichido Risk Consulting Co., Ltd. ran in Yomiuri Newspaper on March 2. It highlighted "Capability of Safe Driving," his joint project with Professor Tetsuro Ogi and Professor Hidekazu Nishimura, on which he will conduct further research using an immersive 3D driving simulator. Mr. Noriyasu Kitamura enrolled in the doctoral course in SDM in April 2010.

▶ <http://www.sdm.keio.ac.jp/news/2010/03/18-112005.html>

TOPIC 7

2009 Agricultural Laboratory activity report is available

The 2009 report on the activity of the Agricultural Laboratory was published in March 2010. The report features activities including those of Special Research Professor Mikako Hayashi's Agri Laboratory's activities. Please find the link for the report below.

▶ <http://www.sdm.keio.ac.jp/news/2010/03/25-093229.html>



TOPIC 8

Research and development by Professor Tetsuro Ogi and Professor Hidekazu Nishimura featured in nikkeiBPnet



An article on the research and development of an immersive 3D driving simulator for promoting safe driving by Professor Tetsuro Ogi and Professor Hidekazu Nishimura was featured on TechnoAssociates Inc.'s website and on nikkeiBPnet.

Visit the webpage below for the links to the nikkeiBPnet and TechnoAssociates websites.

TechnoAssociates : ▶ <http://venturewatch.jp/20100325.html>

nikkeiBPnet : ▶ <http://www.nikkeibp.co.jp/article/news/20100326/217765/>

TOPIC 9

Mook Theory features Dr. Hiromichi Yasuoka's article

An article by Dr. Hiromichi Yasuoka, a researcher at SDM Research Institute, was featured in Mook Theory magazine 2010, Vol. 2, published by Kodansha. Please visit the Kodansha webpage below for more details.

▶ http://shop.kodansha.jp/bc2_bc/search_view.jsp?b=3781240



TOPIC 10

Professor Haruyama's visible light communication demo is available on YouTube



The demonstration video of the visible light communication system, exhibited by Professor Haruyama's group at Keio Techno-Mall in December 2009, has been posted on YouTube. In the video, a robot detects its position within a centimeter and moves around based on the information from lighting.

YouTube ▶ <http://www.youtube.com/watch?v=QEh5f49LsB4>

Lab profile

Communication Design Laboratory

Associate Professor Tetsuya Toma

The specialty of Associate Professor Tetsuya Toma, former advanced product development specialist at 3M in the US, is advanced system development and global marketing for the broadband society. He is known for his wide experience in project management at 3M, a global company. For his work in developing numerous new products and successfully introducing them to the market, he has won many company awards.



Toma Lab members of the inaugural class at master's thesis presentation in March

Communication Design Laboratory

Communication design as a keyword, and various research relating to communication is underway in the laboratory. The categories are wide; from education, medical care, IT system development, and marketing to printed media.

The laboratory's core activity this fiscal year will be "Cabinet Offices' leading-edge R&D support program - creating the face-to-face communication industry with the world's fastest plastic optical fiber and photonics polymer for high-definition big-screen display," led by Professor Hiroyasu Koike in Faculty of Science and Technology, Keio University. Associate Professor Toma has been appointed as the leader of one of three sub-themes of the project, "Development of a Face-to-Face Communication System."

Associate Professor Toma leads a leading edge R&D program

The project was featured in an article titled "Japanese optical technology put into practical use" on the first page of Nikkei newspaper on March 19, 2010. Keio University established Keio Photonics Research Institute (KPRI) for the grand scheme of developing plastic optical fiber

for building optical networks at home and home electronics to connect to the network, and of the creation of products and services associated with the network. Professor Koike was appointed president of the institute, and Mr. Yokomizo, former CIO of Lawson, was named vice-president. Associate Professor Toma's role is the creation of new business from the industry - university collaboration. Major companies, including Sony and Sekisui Chemical, have already announced their participation.

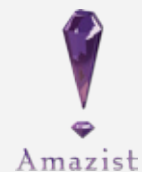
"The project includes not only the development of technology but also that of applications and business models, which really requires system design and management to handle large scale and complex systems," said Associate Professor Toma. "To create an exciting future for the whole nation, the project will involve associated cutting-edge technologies that SDM Professors are working on, such as haptic communication by Professor Maeno, super-high definition and high-realistic display by Professor Ogi, and visible light communication by Professor Haruyama. The participating companies are excited about the project, and the environment for producing substantial result is nearly ready. We are confident we will meet their high expectations."

Mr. Tateishi, a member of Toma Lab who is in the second year of the Master's program, starts a business



Mr. Mikito Tateishi has been working on information literacy for wireless network visualization since his time as an undergraduate in Professor Jun Murai's Lab in the Faculty of Environment and Information Studies, Keio

University. Since his enrollment at SDM, he has been working in Toma Lab on a rear project screen that applies zero-birefringence polymer. He has founded Amazist, a company that will produce a product based on his research.



Message from Mr. Tateishi

Recently the global market, especially China, is dramatically expanding. Each country must appeal its strengths to the world market. Japan has advanced and innovative technology to offer. However, we don't readily see the target markets and don't find ways to promote our

technology. In Amazist, I would like to support technology branding by using system thinking to create the concepts, plan the events, and make the visuals at every step, from website creation to media art production.

- ▶ <http://www.amazist.co.jp>
- ▶ <http://www.sdm.keio.ac.jp/en/voices/tateishi.html>



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