



Mr. Hiroyuki Yagita, PJ Leader, "Roppongi Vege & Fruit Corporation," a project to use empty schools in Tokyo

Message from the Director and Dean

On February 10 and 11, the master's theses written by the first graduating class of the Graduate School of System Design and Management (SDM) were presented and examined. It was a moment replete with both expectation and anxiety. SDM is attempting to forge a true fusion of the humanities and sciences. What would the theses say and how would they be written? The students did not disappoint. Their presentations showed a full understanding of the "see the forest and also the trees" approach. They established and verified hypotheses and produced solid results. Even the outside member of the Examination Committee had high praise. We are proud of the enthusiasm that this first class displayed, and we look forward to seeing them apply that energy and ambition to great things in the future.



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

News

TOPIC 1 Master's Thesis Examination Committee for the 1st graduate class

The Master's Thesis Presentation was held on February 10 and 11. Students were given 20 minutes each to present their theses and respond to questions. (See the Message from the Director and Dean for more details on the presentation.)



The Master's Thesis Presentation

TOPIC 2 Intensive lecture on "Holistic Thinking"

Dr. Joseph Kasser of the National University of Singapore gave an intensive lecture on "Holistic Thinking" on February 15-19, 2010. "Holistic" thinking is a concept that encompasses analysis, system thinking and critical thinking to provide an important approach for viewing the big picture. Participants enjoyed excellent group discussions.



Dr. Joseph Kasser

TOPIC 3 Intensive lecture on "Predictable Projects"

Mr. Niels Malotaux gave an intensive lecture in English on "Predictable Projects" from February 22 to 25, 2010. Most project failures stem from inability to meet schedules. This lecture began by developing a specific awareness of how a single day's delay affects costs before learning how to grasp the limits of what can be accomplished during a predetermined period of time and strategies for making more frequent use of the PDCA cycle to reduce wasted time. Most of the students attending were from industry and said that they wanted to make use of what they had learned in their jobs.



Mr. Niels Malotaux

TOPIC 4 Degrees awarded and doctoral thesis titles

SDM opened its doors in April 2008, and in March 2010 we graduated our first class. A total of 49 masters' degrees were awarded. We also had two students receive their Ph.D.s early, following in the footsteps of Mr. Hiromichi Yasuoka, our first Ph.D. who earned his degree in September 2009.

Number of degrees awarded (March 23, 2010)

Master of System Design and Management	: 30
Master of System Engineering	: 19
Ph.D. in System Design and Management	: 1
Ph.D. in System Engineering	: 1

Doctoral thesis titles

Name	: Ms. Yoko Ohzono (2nd year, doctoral course)
Title	: Essays on Gender Differences in Managers' Subjective Outcomes
Degree	: Ph.D. in System Design and Management
Name	: Mr. Zhu Shaopeng (2nd year, doctoral course)
Title	: Model-Based Design of a Front-Steering Assist Control System for Motorcycles
Degree	: Ph.D. in System Engineering

Student project wins the Award for Excellence in the finals of the Student Entrepreneur Grand Prix



After the awards ceremony

Members of "Roppongi Vege & Fruit Corporation," a project to use empty schools in Tokyo that emerged from Team-A2 of ALPS2009, participated in the finals for the "FY2009 Student Entrepreneur Grand Prix" held in Tomin Hall on Sunday, February

7. Out of a field of 230 entries, they were selected for the Award of Excellence (top three plans). The news was covered by the Fuji Television Network "Mezamashi TV" information program on Monday, February 8, including a telephone interview with Mr. Yagita, the project leader. The team also entered the "6th Campus Venture Grand Prix" and took second prize in the Tokyo round. At the nationals (800 entries) held on Wednesday, March 3, they were not, unfortunately, selected for an award.

Voice

Looking back on the competitions (Mr. Hiroyuki Yagita, leader, 1st year masters course)

I think we did everything we could possibly do in ALPS2009 and the two venture contests. I hope that ALPS2010 sees even more teams competing, learning from our results and mistakes as they pursue their own ventures.

Entrepreneurialism (Mr. Yasuhiro Matsuo, 2nd year masters course)

Participating in student venture contests opened us up to a lot of outside advice and stimulation. I am thoroughly enjoying the process by which business ideas that came out of ALPS integrated with my masters' research and are now coming together to create a new business. After I've completed my masters' course, I hope to show the world the value of SDM by starting a business based on this project that will provide solutions to large, complex issues. I look forward to your support.

Academic Year 2009 study abroad

In the Fall Semester of Academic Year 2009, three students from the Faculty of Technology, Policy and Management (TPM) at Delft University of Technology (TU Delft) came to SDM and three of our students went there. Both schools were satisfied with the results and are discussing

increases of the number of exchange students next year. Ms. Nonaka and Mr. Karai, both 2nd year masters' course students, gave excellent masters research presentations that demonstrated how much they had grown. Ms. Sun, a 1st year masters' course student, brought back a large number of credits and

excellent grades from the TPM.

During Academic Year 2009, three students attended the Renault/HEC/Ecole Polytechnique joint course, and in Academic Year 2010 we plan to add a program to further increase their numbers.

Report from Ms. Tomomi Nonaka

I was part of the Energy & Industry Group in the TPM at TU Delft, where I continued to work on my masters' research. It was a very cosmopolitan environment, with exchange students accounting for about 60% of the total. My days were filled with discussions with other members handling energy issues, and they produced a series of discoveries and insights that broadened my perspectives. I will always treasure the acquaintances I made with teachers, students and friends inside and outside the university. There were many surprises just in ordinary, day-to-day life. I learned that the systems and customs we take for granted in Japan may be completely different in other parts of the world. I was taught much by my friends' values and views on life. I would like to express my deep gratitude to SDM for giving me this opportunity, and I recommend that students coming up take advantage of this excellent exchange program.



Ms. Tomomi Nonaka, center

Report from Mr. Tadashi Karai

I studied a bit about the Netherlands before the trip. Terms of size, it's roughly equivalent to Kyushu, with a population about 13% of Japan's, but per capita GDP 1.35 fold Japan's. I was very interested to see what kind of lifestyle and what kind of thinking would produce this. What I found was an atmosphere that was in touch with cultures and information around the world. On the streets, people not only from the EU, but from Africa and Asia, and indeed from everywhere in the world, live together naturally. That provides the setting in which students study and discuss, and I was impressed by the flexibility that allowed them to accept the cultures and thinking of other countries. There are some issues too, like the dilution of cultural identity, but I felt like this was one answer to the problems confronting Japan.



Mr. Tadashi Karai

Report from Ms. Sun Hongmei

I was an exchange student at TU Delft in the Netherlands from September 2009 to January 2010. It was thrilling; I can still remember the beautiful scenery, splendid university and kind people. For 5 months, I used English to listen to classes, conduct group works, write reports, make presentations and go about my life. Before going, I could barely speak English, but I feel like I can now use it in all of its facets: listening, speaking, reading and writing. I gained new confidence in my abilities by starting a workshop and by enrolling in, passing and receiving credits for six subjects. I think I'm now better able to be active on an international stage. I want to thank SDM for giving me the opportunity to study abroad. I hope that I can serve as a bridge between SDM and the TPM at TU Delft, and that I can become a person that both schools can be proud of.



Ms. Sun Hongmei, left

Notice

Call for ALPS2010 project

SDM is looking for projects related to the concept of “safe, secure system design.” Are there any engineering, social, organizational or business problems that you wish to address? Something difficult that you can’t take up in your normal, day-to-day activities? A medium or long-term task you need to accomplish? Would you be interested in working with our graduate students to find solutions? Click on the URL below for a pamphlet that will provide more details.

▶ <http://www.sdm.keio.ac.jp/en/pdf/alps2010.pdf>

ALPS (Active Learning Project Sequence)

“ALPS” projects provide recommendations on the design of innovative products, services and other systems using system design and management approaches developed in collaboration among Keio University, Massachusetts Institute of Technology (MIT) and Stanford University. We examine products and services related to a project, define the problems, learn the requirements of the interested parties, set system requirements, design concepts, propose architecture, repeatedly test and prototype, and then verify our recommendations. ALPS participants gain real-life experience in the design of totally new business models and innovative systems.

How ALPS works

Graduate students at the SDM form small teams (five or six members) and spend about six months working on the selected projects. Teams come from a variety of industries, jobs, areas of expertise, and generations. They work synergistically to incorporate the perspectives and requirements of a broad range of stakeholders and account for the entire lifecycle of the system. Faculty from MIT and Stanford make five two-day visits to the campus, (total of 10 days) to guide the projects. Teams perform detailed analyses of projects and provide you with reports that define products and services and the development process to achieve them. Their goal is to provide an innovative solution that will affect society at large.

TOPIC 7

Attendance at INCOSE International Workshop2010

The INCOSE (International Council of Systems Engineering) International Workshop2010 was held in Phoenix, Arizona (USA) on February 5 to 9, 2010. Professor Ohkami, Assistant Professor Minato and Assistant Professor Narukawa attended from SDM. It was an excellent opportunity for people from universities, research institutes and companies involved in systems engineering to gather together from around the world and share their expertise and insights into educational trends. Of particular note was the discussion of “Model-Based Systems Engineering” at the Workshop, which attracted more than 100 participants and lasted for 3 days. In addition to the conventional text-based approach to defining system specifications, participants discussed new approaches that use models to design and verify systems.



Workshop 2010

TOPIC 8

Professor Ohkami named ESEP by INCOSE: First in Asia

Professor Yoshiaki Ohkami was named an “Expert of Systems Engineering Professional (ESEP)” by the International Council of Systems Engineering (INCOSE, an international academic association for systems engineering) on February 1, 2010. ESEP is the highest title in the field, awarded only to those who have achieved significant results in both the practice and pedagogy of systems engineering. There are currently 17 in the world. Professor Ohkami is the first and only to receive the award in Asia.

▶ <http://www.incose.org/educationcareers/certification/cseps.aspx?type=5>



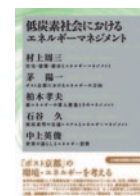
Professor Yoshiaki Ohkami, front row, 4th from the left

TOPIC 9

“Energy Management in Low-Carbon Societies” published

SDM and Global COE Program on “Center for Education and Research of Symbiotic, Safe and Secure System Design” have compiled and published lectures from the course sponsored by Nikkei, Inc. (see the November edition of the SDM News for details) as a new volume entitled “Energy Management in Low-Carbon Societies.” The Preface was written by Professor Ohkami and Professor Maeno; the Afterword by Professor Ikaga of the Faculty of Science and Technology and Associate Professor Toma. We hope you will read it.

▶ <http://www.keio-up.co.jp/np/isbn/9784766417180/>

**“Energy Management in Low-Carbon Societies”**

ISBN:978-4-7664-1718-0

Price: 2,520 yen

(2,400 yen plus tax)

Published March 15, 2010

TOPIC 10

Mr. Toshiyuki Seto selected for the 2009 “Award for Best Presentation by a Young Researcher” by the New Energy and Environmental Technology Group of the Institute of Electrical Engineers of Japan



Mr. Toshiyuki Seto, a 2nd year masters course student in the laboratory of Professor Shoichi Sasaki, was selected by the New Energy and Environment Technology Group for the “Award for Best Presentation by a Young Researcher.” The Group is part of the Power and Energy Society of the Institute of Electrical Engineers of Japan.

Mr. Seto won the award for a paper entitled “Agent-based Prediction of the Saturation Phase of Building Integrated Photovoltaics” that was presented to the 2009 meetings of the Power and Energy Society of the Institute of Electrical Engineers of Japan.

Lab profile

Socio-Critical System Laboratory (SCS Lab)

Professor Ryuichi Teshima

Former Chief, Washington Bureau, NHK
 Area of expertise: Intelligence and crisis management for large, complex systems
 Books and publications: "Ultra Dollar," "Diplomatic Losses" (Shinchosha Publishing), "Intelligence: War Without Weapons" (Gentosha, joint author) etc.



Laboratory members

1 Laboratory profile

Under the leadership of Professor Ryuichi Teshima and Professor Toshiyuki Yasui, the Socio-Critical System Laboratory (SCS) focuses primarily on social systems, but takes a systems engineering approach rather than traditional social systems theory. Most of the students in the first class were returning to the university after

gaining experience in industry, but the second class includes more new graduates who bring greater variety to the laboratory. Research themes cover a broad range of issues, from the pharmaceuticals industry to architecture and construction.

2 Overview of SCS's 2nd year

From this academic year Professor Yasui, who had been an SDM Special Guest Professor, began to supervise students full-time over the course of his 2-year appointment. Professor Yasui has started a new and extremely interesting class on "Socio-Critical Systems" that uses both policy and systems engineering perspectives to examine how social systems are built and structured. The discussions with students are spirited and enthusiastic, and the opinions expressed insightful.

The laboratory held its first camp this academic year to give working students an opportunity to get out of their ordinary surroundings and concentrate on their research. The camp also enabled the laboratory to prepare for interim presentations, theme presentations and other SDM events.

Seminars this year are led by Mr. Nakajima, one of our 2nd year master's students. He works with the faculty to finalize topics and schedules and has put together a strong organization.

3 Future activities

By the time this issue is published, 2008 Spring students will have finished presenting their master's theses and have a bit of breathing room, but everyone else will be busy. Our 2008 Fall students will be getting down to prepare for the final preparations for graduation in September and 2009 Spring students will be getting ready for their interim presentations. We look forward to continuing our projects as the SDM Research Institute (policy recommendation project for pharmaceuticals, policy recommendation project for animation) and to seeing further results come out of the graduate school's research in its third year. The laboratory will continue to be actively involved in activities to provide advice and recommendations on social systems.



At work



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