



March 2013



wo years have passed since the Great East Japan Earthquake. Recovery from the disaster has been one of Japan's top priorities; and Keio SDM students, alumni, and faculty are dealing with the large and complex issues of the recovery in diverse ways. Natural disasters of various kinds have occurred in many parts of the world since the Great East Japan Earthquake, including earthquakes, tsunamis, heavy rainfall, floods, and wildfires. In fact these all prove that the earth is living and active and that we cannot avoid natural disasters as long as we live here. Natural disasters are borderless. Consequently, we humans need to think and act beyond national boundaries in order to face these challenges. A first step forward is to endeavor to interact with people of various countries to deepen mutual understanding. In fact many of the international projects in which Keio SDM

is involved are successful, thanks to the "key persons" within the partner institutions who have a good understanding of Japan, Keio, and/or Keio SDM. I believe that the key to dealing with different large-scale and complex challenges is to form a sustainable and global network. To do so, each one of us, students and faculty of Keio SDM, must act as a representatives of Japan in interacting with persons of various nations and regions, thereby deepening the mutual understandings and act as intermediary to sustain these relationships. Celebrating its fifth anniversary, Keio SDM will launch new exchange programs with University of Cambridge, Massachusetts Institute of Technology, and the University of Adelaide in April. With more global partners, Keio SDM will strive to solve problems and contribute to society through education and research pertaining to the systems approach.

> Naohiko Kohtake, Associate Professor Graduate School of System Design and Management

#### **News**

### "The Future of Dialogue and Design Vol. 8: The Future of the Economy"

ince June of 2012 the SDM Research Institute, together with the Center for Education and Research of Safe, Secure and Symbiotic System Design of the Global COE Program, has been organizing a series of extension lectures, entitled "Future Sessions", on the subject of "The Future of Dialogue and Design."

The eighth session, "the Future of the Economy," was held on Wednesday, February 6, with guest speakers Mr. Hideto Fujino, Director and CIO of Rheos Capital Works, known as a charismatic fund manager, and Ms.

Presentation by Mr. Fujino of Rheos Capital Works

Masumi Sai, Representative of Good News and Companies Inc., an economics commentator. Mr. Fujino spoke about the potential of Japanese companies based on stock price movement, whereas Ms. Sai introduced projects designed to make economics something that the people can relate to. The session was attended by more than sixty participants who actively asked questions and shared thoughts. The level of satisfaction was high among the participants. Positive comments were received such as, "I came to feel more familiar with economics," and "It changed my view of money."



Presentation by Ms. Sai of Good News and Companies Inc.

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## **Extension Lecture: "Design the Social System"**



Mr. Yokoyama giving a concrete example in his presentation

eio SDM and Global COE Program held an extension lecture entitled, "Design the Social System," from 19:00 to 21:00 on Tuesday, February 26. The lecturer was Mr. Yoshinori Yokohama, a social system designer and former President of McKinsey Japan. He explained the ways of thinking and methods used for designing complex and diverse social systems. He made a convincing argument that what Japan needs now is not an innovation of products or concepts, but rather an innovation of systems. Design process—a body

intelligence that uses logical thinking processes and creative thinking processes interchangeably—has much in common with the methodologies studied and taught at Keio SDM. The session reaffirmed the further spread of system design based on systems engineering.

The presentation was followed by a lively question-and-answer session. Many participants gave positive feedback, including the following, "Through this session I could see the importance of Keio SDM's work."



Participants listening attentively

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### **TOEFL-ITP for SDM Students**



Students taking TOEFL-ITP

On February 23 the Test of English as a Foreign Language (TOEFL)-Institutional Test Program (ITP) was given to SDM students on Hiyoshi Campus.

TOEFL is a well-known test used to determine English levels of students who wish to study abroad, whereas the ITP is an examination program designed for groups by recycling TOEFL's past tests. Having a question structures and scoring system very similar to TOEFL, ITP is utilized by many higher education institutions in Japan and overseas according to the Council on International Educational Exchange (CIEE) Japan. It is comprised of three sections: listening comprehensive (50 questions / 35 minutes), structure and written expression (40 questions / 25 minutes), and reading comprehension (50 questions / 55 minutes). A total of 140 questions have to be answered within 115 minutes. SDM students who are close to completing the graduate course took the test with eagerness.

Keio SDM introduced TOEFL-ITP in 2010. Since then students are requested to take the test upon joining the course and right before completing the course. In this manner Keio SDM can measure and monitor the English levels of its students in a periodic and quantitative manner. With a view to nurturing globally competitive human resources in a strategic manner, Keio SDM supports its students in various ways in order to improve their English levels by offering English classes, promoting exchange programs at partner schools overseas, and accepting exchange students from overseas.

### "Regional Vitalization Workshop Using Charm-Plus Card of Kohoku Ward"



As a part of the Keio Innovative Design School (KiDS), Keio SDM in collaboration with Kohoku Ward of Yokohama City held a workshop, "Regional Vitalization Using Charm-Plus Card of Kohoku Ward" from 10:00 to 13:00 on Sunday, February 10. It attracted a wide range of participants, including local residents, students, and those from outside the locality. Participants were divided into groups and asked to propose a new way of using the Charm-Plus Card of Kohoku Ward by utilizing methods, such as brainstorming and Structural Shift Ideation. At the end each group prepared and presented a skit by using a Hollywood movie, "Three Act Structure," as a reference. It offered a great opportunity for participants to feel the spirit of innovation regarding the Charm-Plus Card of Kohoku Ward while enjoying the workshop of Keio SDM.

### The Fifth Workshop on "Utilization of New Energy and Sustainable Social Research Program 2013"



Panel discussion

fifth workshop was held from 19:00 to 21:00 on Wednesday, February 27 to discuss new energy resources of post-earthquake Japan.

Thus far the workshop series has focused on a larger view of the theme in line with Keio SDM's style. It has identified issues, such as social systems and regulatory barriers by inviting experts on solar, geothermal, and wind power. Two years have passed since the Great East Japan Earthquake. Now that there is a good understanding of the feed-in tariff and the environment surrounding the associated markets, both government and private enterprise are beginning to seek for new business models and technologies.

The fifth workshop was designed to kick-start the search for a new agenda by taking a panoramic view of the situation of Japan while considering what is happening globally. With regard to solar

panels, U.S. companies are planning to inaugurate new factories in Asia this year in rivalry with China which has most competitive prices. We invited Mr. Datuk Ahmad Shukri Tajuddin, CEO of Senai Hi-Tech Park, which is the second high-tech industrial complex in Malaysia and one of the destinations of the U.S. funded factories. He shared the recent market information concerning Southeast Asia including Malaysia.

We also invited an investment expert who provides financial advisory to international businesses, such as engineering firms, Mr. Sanefumi Shoji, a certified international investment analyst of Sun Investment. He spoke about global investments and technologies concerning new energy. The workshop offered a valuable opportunity to explore practical direction towards an ideal energy mix.

#### **Notice Awards**



nofessor Hidekazu Nishimura was awarded a title of "Japan Society of Mechanical Engineers Fellow" on January 16 in recognition of his contribution in mechanical engineering and mechanical systems.

# Laboratory / Center profile

# Laboratory of Organizational Management (MOBIL)

Representative: Professor Kenichi Takano

http://lab.sdm.keio.ac.jp/takano/ (in Japanese)

#### 1. Introduction

#### "Organizational Climate for Realizing Security and Safety"

In view of security and safety for large-scale and complex systems, research is crucial not only on hardware-related reliability improvements but also regarding organizational culture and climate as it affects the overall life-cycle of facility operations.

The Laboratory conducted a study on the creation of corporate climate and culture as shown in the figure. The purpose is to create an organization (workplace and staff) that is (1) free from accidents and compliance problems; (2) motivating and lively; and (3) creative and filled with potential. The area of research can be divided into three categories: "Creation of Organizational Climate and Culture," "Vitalization of Individuals and Teams," and "Risk Management."

### 2. Summary of Research Findings

#### 2.1 Creation of Organizational Climate and Culture

We studied motivation improvement within an organization, safety culture assessment, organizational diagnosis for profit improvement, organizational vitalization, and international comparison of organizational cultures. By now the method of organizational culture diagnosis has been developed to a practical level; and we conduct the diagnosis upon the request of firms while promoting the transfer of technology.

#### 2.2 Vitalization of Individuals and Teams

We proposed how to vitalize individuals and teams by focusing on re-training individuals and teams using methods such as the following: development of teamwork training, new proposals for improving work-life balance, and studies on stress management. More specifically, we conduct training for real companies and measure the effects in order to develop the method to a practical level.

#### 2.3 Risk Management

We also made proposals on topics, such as risk assessment to minimize troubles associated with large information systems, capabilities of project managers who can lead the project to success, and matters to be considered by organizations. In addition, we conducted research on corporate bankruptcy and prevention of compliance breaches.

#### 3. Conclusion

As described above, the Laboratory has been working towards establishing a research base for vitalization, creativity enhancement, and creation of the right climate and culture for organizations, workplaces, teams, and individuals. We also try to contribute to society by offering practical and ready-to-be transferred technologies, such as corporate assessment and training tools.









# **Next Generation Contents Laboratory**

Members: Professor Tetsuro Ogi, Associate Professor Tetsuya Toma, Associate Professor Naohiko Kohtake, Yoshiaki Ohkami (Executive Advisor of SDM Research Institute), and others

Information media technologies are advancing significantly as seen in 4K3D, Virtual Reality (VR), Augmented Reality (AR), and smart phones. As the media develops, the content needs to be created and utilized in such a way that brings out the best of the media used. The Next Generation Contents Laboratory is conducting research on the use of next-generation contents from various perspectives, from developing technologies to create new contents to proposing contents utilization in accordance with the purpose, with an aim to utilize media technologies which continue to advance more effectively. Our research activities often take the form of projects and events, and we carry out projects in collaboration with various firms.

Our recent research includes the followings:

#### Sports and Images for Regional Vitalization

**S** ports are closely linked to the lives of people, young and old alike: One can enjoy by either playing or watching. This project aims to vitalize regional cities using sports by transmitting sports images in a realistic and sensational manner in collaboration with a professional basketball team and video production companies.

#### • Experiment of Tele-Immersion with the International Space Station

In this project we connected Keio University to the International Space Station (ISS) with a video communication network and conducted a tele-immersion experiment using real-time 2D/3D conversion technology during Astronaut Hoshide's extended stay on the ISS last year.



Event at AORE Nagaoka



Realistic and lively communication with Astronaut Hoshide



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