

News

Prof. Kazuo Konagai was on a reconnaissance trip to Christchurch, New Zealand, as a member of JSCE Reconnaissance Team for the M6.3 Christchurch Earthquake of Feb. 21st 2011. He had jointly surveyed soil subsidence caused by liquefaction with Prof. Misko Cubrinovski, University of Canterbury.

Underground motions within a hard diluvial stratum of the March 11th 2011 Off the Coast of Tohoku Earthquake (Great East Japan Earthquake) were obtained from down-hole seismometer arrays at Toyocho (35.669286,139.812055) and Shinkiba (35.645681,139.824562). Observations at both sites have started in 1976 in commission from Tokyo Metro Subway. They are the closest to the Tokyo Bay Area, which has suffered serious liquefactions in the March 11th 2011 quake.

Prof. Kazuo Konagai has taken over responsibility of the Chairman, Earthquake Engineering Committee of the Japan Society of Civil Engineers (JSCE) since the General Assembly of it on April 24th, 2011.

Dr. Hiroyuki Kyokawa has joined Konagai Laboratory on April 1st as an Postdoctoral Fellow of the JSPS.

Professor Kazuo Konagai and his laboratory members had been on frequent reconnaissance trips to areas affected by the March 11th 2011 Off the Coast of Tohoku Earthquake of Mw9.0. They include the followings:

March 20th to 21st : Hanamaki, Kitakami, Mizusawa and Ichinoseki of Iwate Prefecture. Seismometer records were retrieved at Sannokai Dam.

March 23rd and 27th: Urayasu, Chiba and Shin-Kiba, Tokyo. 80% of Urayasu suffered serious liquefaction.

March 30th: Urayasu, Chiba. Change in elevation along major roads in the city was measured using dual-frequency Differential GPS receivers.

April 2nd: Urayasu, Chiba. Tsunami marks along Miake River have been confirmed.

April 6th: Shirakawa, Fukushima. Landslides were surveyed in the upper stream reach of Abukuma River.

April 10th: Urayasu, Chiba, and Edogawa Ward, Tokyo. Tsunami marks were confirmed along Arakawa Diversion Channel.

April 15th: Fujinuma dam, Sukagawa, Fukushima Prefecture: Fujinuma dam was breached in the March 11th earthquake.

April 16th: Onagawa, Miyagi Prefecture. Onagawa town was one of the most seriously tsunami-engulfed towns/cities along the Sanriku indented coast line. Pre-stressed concrete piles for RC or steel-frame buildings were uprooted at several locations in the town.

April 17th: Midorigaoka residential area, Sendai, Miyagi Prefecture. The area is on a high terrace rising east of Sendai. Coherent fills covering terrace runoffs moved slightly down causing serious damage to dwellings.

April 20th: Airborne LiDAR survey over Urayasu, Chiba Prefecture.

April 24th: Urayasu, Chiba. Quick restorations for gas, water services were completing.

May 3rd to 5th: Onagawa, South Sanriku, Yamamoto, Miyagi Prefecture.

May 19th: West of Iwaki City, Fukushima Prefecture. A landslide mass was LiDAR surveyed. On April 11th, 2011, exactly a month after the March 11th quake, Iwaki region of Fukushima prefecture was jolted by Fukushima-Prefecture Hamadoori Earthquake. Surface ruptures were observed along causative Idosawa and Yunotake normal faults. The landslide, mentioned above, was one of the most catastrophic failures caused by this earthquake.

May 20th: Coastal area of Iwaki, Fukushima Prefecture. Tsunami marks were confirmed.
June 8th: Survey along fault ruptures that appeared in the April 11th Fukushima-Prefecture Hamadoori Earthquake. Prof. Jonathan Bray, University of California, Berkeley, Dr. Ashley Steig and Dr. Takashi Matsushima, Tsukuba University, joined the survey.
June 14th to 17th: Prof. Konagai was the leader on the Japanese side of the ASCE-JSCE joint survey team for damages to lifeline facilities. Mr. Curtis Edward, Technical Council for Lifeline Earthquake Engineering, ASCE, was the leader on the American side. The team surveyed extensive areas of Iwate, Miyagi, Fukushima prefectures and the Kanto region.
June 23rd and 24th: West of Iwaki City, Fukushima Prefecture. LiDAR survey was conducted at the same landslide location surveyed on May 19th.
July 10th: Makuhari, Chiba: This area also liquefied, and subsided in the March 11th quake.
Aug. 1st: Urayasu, Chiba:
Aug. 20th and 21st: Iwaki and Fujunuma dam in Sukagawa, Fukushima Prefecture. Geo-hazard locations along the rupture of Yunotake Fault and the breached Fujinuma Dam in Sukagawa was LiDAR surveyed for their digital terrain models.

Prof. Kazuo Konagai, on invitation by the American Society of Civil Engineers (ASCE), provided a talk about an overview and lessons from March 11th Earthquake at the Mini-General Session of the Annual Civil Engineering Conference of ASCE held in Memphis, Tennessee, USA on Friday, Oct. 27, 2011. This session focused on the response of the civil engineering community to the March 2011 earthquake and consequent tsunami in Japan. Learn how the response was prioritized and implemented in the short term and what is being done to respond in the long term. The other speakers were Curtis Edwards, P.E., Fellow of ASCE, Vice President of PSOMAS and also the leader of the ASCE TCLEE Reconnaissance Team, and Nasim Uddin, P.E., F.ASCE, Professor of University of Alabama, Birmingham. The session was moderated by David G. Leverenz, P.E., Fellow of ASCE, Vice President, Parsons Transportation Group.

Prof. Kazuo Konagai was the leader of the JSCE Reconnaissance Team dispatched to Van and Erçis in eastern Turkey devastated in the Van Earthquake of October 23rd, 2011. The other members were Prof. Omer Aydan, Tokai University, Pro. Resat Ulsay, Hacettepe University, and Prof. Halil KUMSAR, Pamukkale University. They made a three days survey (November 3rd to 5th) in the earthquake-affected areas. In organizing the team, the Disaster-Information Network among JSCE, AIJ and JAEE (Chairman, Prof. K. Kawashima of the Tokyo Institute of Technology) took the initiative.

Associate Professor T. Kiyota attended 5th International Conference on Earthquake Geotechnical Engineering in Santiago, Chile, 10 - 13 January 2011.

Associate Professor T. Kiyota made damage survey as a member of reconnaissance team of JSCE and JGS in Christchurch, New Zealand, affected by the 2011 Christchurch Earthquake, 28 February -5 March 2011.

Associate Professor T. Kiyota made damage survey as a member of reconnaissance team of JSCE in Tohoku region, Japan, affected by the 2011 Great East Japan Earthquake, 27-31 March 2011.

Associate Professor T. Kiyota attended 13th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering in Hong Kong, China, 23-27 May 2011.

Associate Professors T. Kiyota, R. Kuwano and Professor J. Koseki attended 5th International

- Symposium on Deformation Characteristics of Geomaterials held in Seoul, South Korea, 1 - 3 September 2011.
- Professor J. Koseki made Mercer Lecture at Geo-Froniers 2011 held in Dallas, USA, 13 - 16 March 2011 and at 15th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Maputo, Mozambique, 18 – 21, July 2011.
- Professor J. Koseki attended 4th Japan-Korea Geotechnical Workshop held in Kobe, Japan, 6 - 7 July 2011.
- Professor J. Koseki attended Second U.S.-Japan Geoenvironmental Engineering Workshop held in Kyoto, Japan, 8 – 9 October 2011.
- Professor J. Koseki received Technical Award from Japan Chapter of International Geosynthetics Society for shaking table tests on railway ballasts reinforced by geotextiles in December 2011.
- Associate Professor R. Kuwano, together with a graduate student of Kuwano laboratory, attended the 5th International Conference on Earthquake Geotechnical Engineering held in Santiago, Chile, in 10 – 13 January 2011.
- Associate Professor R. Kuwano, together with graduate students of Kuwano laboratory, attended the 10th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia held in Chiang Mai, Thailand, in 12 - 14 October 2011.
- Professor Y. Nakano visited Christchurch, New Zealand and surveyed areas affected by the Christchurch Earthquake on Feb. 22, 2011, during the period of March 9 to 16. He inspected buildings damaged by the earthquake.
- Professor Y. Nakano visited Iwate and Miyagi prefectures, Japan and surveyed areas affected by the Great East Japan Earthquake of March 11, 2011, during the period of April 29 to May 1. He also visited the affected areas together with Drs. H. Choi and N. Takahashi during the period of May 1 to 7, 20 to 24, June 10 to 13, and 24 to 27 to investigate buildings damaged by the earthquake induced shaking and tsunami.
- Dr. H. Choi attended the 2nd International Conference on Earthquake Engineering and Disaster Mitigation, held at Hotel Shangri-La Surabaya, Surabaya, Indonesia, during the period of July 17 to 21. He made a presentation on "Comparing Damage to Building Structures due to the 2009 West Java Earthquake in Indonesia".
- Dr. H. Choi visited Padang, Indonesia and investigated the damage and structural characteristics of buildings affected by the 2009 September 30 Southern Sumatra Earthquake, during the period of August 25 to 31.
- Dr. N. Takahashi visited L'Aquila, Italy and investigated the damage and structural characteristics of historic buildings affected by the 2009 April 6 L'Aquila Earthquake. And he also visited Padova and Venice, Italy and investigated the effects of salt deterioration on historic buildings, during the period of September 7 to 16.
- Prof. Y. Nakano was awarded a research grant "Investigation on Building Code Development in Tsunami Hazardous Areas" by the Ministry of Land, Infrastructure, Transport and Tourism.

The findings of the research were incorporated in the Interim Guidelines for Structural Design of Tsunami Shelters (http://www.mlit.go.jp/report/press/house05_hh_000274.html) issued on November 17, 2011 and in the Notice on Regional Development for Tsunami Disaster Mitigation enforced on December 27, 2011.

Prof. Kawaguchi and Mr. Oba visited Ibaraki Prefecture on March 13, 2011, to investigate an airport building damaged during the 2011 off the Pacific Coast of Tohoku Earthquake.

Prof. Kawaguchi, Dr. Ogi, Mr. Oba, Mr. Uemura, and Mr. Nakaso visited the National Museum of Emerging Science and Innovation, to investigate damage to non-structural components during the 2011 off the Pacific Coast of Tohoku Earthquake. After that, they made observations of ceiling behavior during the aftershocks.

Prof. Kawaguchi, Mr. Oba, and Mr. Nakaso visited Tochigi Prefecture on April 12, 2011, to investigate large roof buildings damaged during the 2011 off the Pacific Coast of Tohoku Earthquake.

Prof. Kawaguchi, Prof. Taniguchi, Prof. Ozawa, Mr. Oba, Mr. Nakaso, Mr. Watanabe, and Mr. Furuichi visited Miyagi, Fukushima, and Ibaraki Prefecture in June 2011, to investigate large roof buildings damaged during the 2011 off the Pacific Coast of Tohoku Earthquake.

Dr. Koshihara have visited Tohoku and Kanto district, for damage investigation of timber houses damaged by The 2011 off the Pacific coast of Tohoku Earthquake.

Prof. K. Meguro, Director of International Center for Urban Safety Engineering (ICUS), Institute of Industrial Science (IIS) gave a lecture 'Earthquake Safer Non-Engineered Houses by Technological and Social Approaches' at Japan-China joint workshop on accident prevention and disaster mitigation policy on 29 July, 2011.

Prof. K. Meguro visited Bangkok, Thailand from 31 July to 3 August to give Special Lecture 'Lessons Learned from the 2011 East-Japan Great Earthquake Disaster' at the 4th International Student Seminar' held at AIT by ICUS and RNUS. He also, visited Japanese Embassy to meet Ambassador Extraordinary and Plenipotentiary, Mr. Seiji KOJIMA to ask him to join and support USMCA 2011 that was planned to be held in Chiang Mai, Thailand in October 2011.

Prof. K. Meguro visited Chen Mai, Thailand to hold the 10th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, USMCA2011 from October 10 to 15. From his research group, totally 9 research papers were presented. Ms. Tomoko Matsushita, master student of Prof. Meguro's research group, won the best poster presentation award. On the way back to Japan, Prof. Meguro visited Bangkok to give a lecture 'Disaster Mitigation Systems Considering Local Availability, Applicability and Acceptability' at JSPS-NRCT joint seminar on Study and Research Opportunities in Japan and Perspective of Thailand by Japanese Scientists.

Prof. K. Meguro and Dr. M. Numada visited Jakarta and Padang, Indonesia with Mr. K. Watanabe from 24 to 27 November to introduce PP-band retrofit method to earthquake prone areas in Indonesia as a part of research project, multi-disciplinary hazard reduction from earthquake and volcanoes in Indonesia by JST-JICA. He gave two lectures 'Implementation of earthquake safer non-engineered masonry houses through technological and social approaches' and 'New Tsunami Disaster Mitigation System Considering Local

Conditions of Indian Ocean Rim Region’.

Prof. K. Meguro visited National University of Singapore, Singapore to attend the workshop on “Climate Change, Disaster Management, and Urban Sustainability: STS Approaches to Three Asian Challenges” organized by Japan’s Research Institute for Science and Technology for Society (RISTEX), as well as the Asia Research Institute (ARI), Faculty of Arts and Social Sciences (FASS) and Tembusu College, National University of Singapore to be held in Singapore on 6– 7 December. At the workshop, Prof. Meguro gave a lecture ‘Implementation of Disaster Resilient Built Environment based on The Lessons Learned from Recent Disasters including the 2011 East-Japan Great Earthquake Disaster’.

Prof. K. Meguro visited Nepal from 18 to 27 January, 2012 to support improvement of earthquake disaster mitigation capacity of Nepal. He investigated vulnerability of the capital city, Kathmandu and several municipalities and gave some lectures related to Total Disaster Management System considering Local Availability, Applicability and Acceptability at National Society of Earthquake technology –Nepal (NSET) and Japanese Embassy, etc. He met Ambassador Extraordinary and Plenipotentiary, Mr. Kunio TAKAHASHI and discuss future projects on disaster countermeasures improvement of Nepal.

Prof. K. Meguro and Dr. M. Numada visited Jakarta and Padang, Indonesia with Mr. K. Watanabe from 18 to 23 February, 2012 to meet and discuss promotion of PP-band retrofit method to earthquake prone areas in Indonesia with focal persons. Also, Prof. Meguro gave a lecture ‘Total Disaster Management System considering Local Availability, Applicability and Acceptability, Framework and Best Practices from the resilient City’ at the 4th Symposium 2012 learning from Japan, Urban Society's Vulnerability, Disaster Mitigation and Preparedness in Indonesia and Japan held at the Center for Japanese Studies at the University of Indonesia.

Professor K. Meguro has published 88 technical papers including conference papers in 2011. Among them, 29 papers were written in English and are listed in this volume. Newspapers and TV have introduced and reported his various research topics and outputs 21 times in academic year of 2011. He has given special lectures as an invited lecturer 69 times by Japanese organizations and 15 times by overseas and international organizations.

Dr. Ohara joined a survey in Tsunami affected area in Sendai-City due to the 2011 Great East Japan Earthquake from March 31 to April 4, 2011.

Dr. Ohara gave a presentation on people’s awareness of earthquake early warning in the International Symposium on Engineering Lessons Learned from the Giant Earthquake on March 4, 2012.