2018 Proceedings of

The 7<sup>th</sup> Korea–Japan Crisis and Emergency Management Seminar & International Workshop

# Local Government and Disaster Resilience Reinforcement for Disaster Victims

Date :	25 (Fri.) – 26 (Sat.) May, 2018
Venue:	25 (Fri.) – Multipurpose Seminar Room, 2nd Floor, Bldg. No.6,
	Faculty of Science and Engineering, Saga University,
	Japan for the Seminar
	26 (Sat.) – Kumamoto City and Asakura City for the Workshop
Organized by:	Department of Civil Engineering, Faculty of Science and Engineering, Saga University, Japan
Managed by:	National Crisis and Emergency Management Research Institute, Chungbuk National
	University (CBNU), Korea
	Crisis and Emergency Management: Theory and Praxis (CEM–TP)
	Global Crisisonomy Institute
Sponsored by:	Saga University, Japan
	International Association of Lowland Technology
	National Research Foundation of Korea
	Chungbuk National University, Korea



Crisis and Emergency Management: Theory and Praxis (CEM-TP)

The $1^{st}$ Day – Multipurpose Seminar Room, 2nd Floor, Bldg. No.6,			
Faculty of Science and Engineering, Saga University – 25 May, 2018			
Opening Ceremony & Photo Session	09:30–09:50		
Special Lecture Session 1	09:50–10:35		
Mr. Tomomi Ooishi (Fire and Disaster Prevention Division, Saga Prefecture)			
– Efforts on Disaster Prevention and Disaster Mitigation in Saga Prefecture			
Special Lecture Session 2	10:35–11:20		
Mr. Takafumi Matoba (MLIT Takeo River Office)			
- Countermeasures against Storm and Flood Damages in Saga Plain			
Session 3	11:20–12:05		
Jae Eun Lee (Chungbuk National University, Korea)	11:20-11:35		
– Establishing the Trans-interdisciplinary Disaster Management Paradigm for Safe			
Community of Human Society			
Keiko Kitagawa (Seitoku University, Japan)	11:35–11:50		
– A Study on Health and Family Life in Life–Sphere of Ger Area in Ulaanbaatar City			
An Chen (Chinese Academy of Sciences, China)	11:50–12:05		

 The Establishment of Nine–Dimensional Risk Model and Its Application in Natural Disasters

# Lunch & Coffee

12:05-13:05

Session 4 13:05–14:50 Jeong Ryu (Seokyeong University, Korea) 13:05–13:20

- What is the Effective Factor as PTG of Korean Fire Fighters: Self-esteem and Social Support?

Yuichiro Sakamoto (Saga University, Japan) 13:20–13:35

Joint Exercise between Japan's First International Disaster Support Team from Saga
 Prefecture and the Chinese Disaster Team

Seung Jin Maeng and Azam Muhammad(Chungbuk National University, Korea) 13:35–13:50

- Development of Flood Alert Application at Mushim Stream Watershed, Korea

Emeritus Yukuo Hayashida (Saga University, Japan) 13:50–14:05

- Trapped Vehicles in Great Saga Plains under Floods

Sailesh Shrestha, Takenori Hino, and Jinchun Chai (Saga University, Japan) 14:05-14:20

- Announcement from IALT, LTI and Post-Investigation on Behaviour of Collapsed

Embankment on Soft Ground in Saga Lowland

Nobuo Mishima and Yudai Mine (Saga University, Japan) - An Analysis on Evacuation to Higher Places Considering Capacities of Shelters in a Traditional Lowland Town

Koichiro Ohgushi, Hibiki Tsuji, and Toshihiro Morita(Saga University, Japan) 14:35–14:50 – A Study on the 2017 Northern Kyushu Torrential Rain Disaster Using Distributed Runoff Models

## Coffee Break

#### Session 5

## 15:10-16:45

14:50-15:10

Masatsugu Nemoto (Chungbuk National University, Korea) 15:10–15:25 – Public Image of City for Vulnerable People against Disaster: Case Study in Cheongju City

Seol A Kwon and Jae Eun Lee (Chungbuk National University, Korea) 15:25–15:40
 – Overcoming Fire Vulnerability of Multiuse Facilities and Safety Measure: Comparative Analysis of Disastrous Conflagration between Miryang and Jecheon

Jongil Na (Tottori University, Japan)

An Analysis of the Relative Priority of Earthquake Preparedness for Local Disaster
 Plan Using the Analytic Hierarchy Process(AHP)

A Yeon Kim, Jae Eun Lee, Jae Soo Yoo, and Seung Jin Maeng (Chungbuk National Univer sity, Korea) 15:55–16:05

 Improvement Programs for Earthquake Disaster Management: Cases of Gyeongju and Pohang in Korea

Yu Shi (Henan Polytechnic University, China) 16:05–16:15

 Research on the Realization Path of Government Purchasing Service in Emergency Education

Long Tian An, Jae Eun Lee, and Joong Kook Choi (Chungbuk National University, Korea) 16:15–16:25

- Analyzing the Medical Health Care System

Xuejiao Li (Chinese Academy of Sciences, China)16:25–16:35– An Empirical Study of Empathy in Social Focuses

Jing Cui (University of Chinese Academy of Sciences, China) 16:35–16:45

- Research on the Model of Grid Risk Management in Community

Closing Session

16:50-17:00

Welcoming & Dinner Party – Café SONES, Saga University Museum 18:00-20:30

The 2<sup>nd</sup> Day – Disaster Area Workshop – 26 May, 2018

Kumamoto Earthquake Disaster Area

- Kumamoto City, Kumamoto Prefecture

Kyushu Northern Torrential Rain Disaster Area

- Asakura City, Fukuoka Prefecture

# The 7th Korea–Japan Crisis and Emergency Management Seminar & International Workshop

# **CONTENTS**

Establishing the Trans-interdisciplinary Disaster Management Paradigm for Safe Community of Human Society

Jae Eun Lee 1

A Study on Health and Family Life in Life-Sphere of Ger Area in Ulaanbaatar City Keiko Kitagawa 4

The establishment of Nine-dimensional Risk Model and its application in natural disasters
An Chen 5

What is the Effective Factor as PTG of Korean Fire Fighters: Self-esteem and Social Support? Jeong Ryu 23

Joint Exercise between Japan's First International Disaster Support Team from Saga Prefecture and the Chinese Disaster Team

Yuichiro Sakamoto 5

Development of Flood Alert Application at Mushim Stream Watershed, Korea Seung Jin Maeng and Azam Muhammad 11

Trapped Vehicles in Great Saga Plains under Floods

Emeritus Yukuo Hayashida 23

Announcement from IALT, LTI and Post-Investigation on Behaviour of Collapsed Embankment on Soft Ground in Saga Lowland

Sailesh Shrestha, Takenori Hino, and Jinchun Chai 23

An Analysis on Evacuation to Higher Places Considering Capacities of Shelters in a Traditional Lowland Town

Nobuo Mishima and Yudai Mine 23

A Study on the 2017 Northern Kyushu Torrential Rain Disaster Using Distributed Runoff Models Koichiro Ohgushi, Hibiki Tsuji, and Toshihiro Morita 23

Public Image of City for Vulnerable People against Disaster: Case Study in Cheongju City Masatsugu Nemoto 23

Overcoming Fire Vulnerability of Multiuse Facilities and Safety Measure: Comparative Analysis of Disastrous Conflagration between Miryang and Jecheon

Seol A Kwon and Jae Eun Lee 23

An Analysis of the Relative Priority of Earthquake Preparedness for Local Disaster Plan Using the Analytic Hierarchy Process (AHP)

Jongil Na 23

Improvement Programs for Earthquake Disaster Management: Cases of Gyeongju and Pohang in Korea

A Yeon Kim, Jae Eun Lee, Jae Soo Yoo, and Seung Jin Maeng 23

Research on the Realization Path of Government Purchasing Service in Emergency Education Yu Shi 23

Analyzing the Medical Health Care System: MERS Disaster Response Long Tian An, Jae Eun Lee, and Joong Kook Choi 23

An Empirical Study of Empathy in Social Focuses

Xuejiao Li 23

Research on the Model of Grid Risk Management in Community

Jing Cui 23