

2015

Proceedings of the 9th International Conference on Crisis and Emergency Management

Date : 12(Sat.) - 14(Mon.) September, 2015

Venue : Gakushuin Women's College, Gakushuin University, Tokyo, Japan

Organized by : International Society for Crisis and Emergency Management

Disaster Prevention & Mitigation Society, Saga University-Seitoku University, Japan

Managed by : Japan Manner Meister Society, Japan

Japan Education & Learning Assistance Society, Japan

Seitoku DWAT Research Project, Japan

Disaster Area Restoration Research Institute, Kansai-Gakuin University, Japan

The Korea Policy Forum

Korean Association for Crisis and Emergency Management

National Crisis and Emergency Management Research Institute, CBNU, Korea

Disaster Management Research Institute, Loving Center for Disaster Victims, Korea

Institute of Policy and Management, Chinese Academy of Sciences, China

Safety and Emergency Management Research Center, Henan Polytechnic University, China

School of Emergency Management, Henan Polytechnic University, China

Center for Disaster Risk Policy, Florida State University, USA

Emergency Management & Homeland Security Program, Florida State University, USA

GECAD, Institute of Engineering-Polytechnic of Porto, Portugal

Crisis and Emergency Management: Theory and Praxis



International Society for Crisis and Emergency Management

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ISCEM

International Society for Crisis and Emergency Management



INVITATION



Welcome to
the 9th International Conference on Crisis and Emergency Management

Dear Global Friends!

It's our great pleasure and honor to meet you in Tokyo, Japan. We, ISCEM members, welcome all participants with heart and are so thankful for our friends' efforts to make our globe safer. In this beautiful September, ISCEM hold the 9th International Conference on Crisis and Emergency Management(ICCEM) with the title "Crisis & Emergency Management for Human Life, Human Dignity, and Human Rights". The ICCEM will be held on 12-14 September, 2015 at Gakushuin Women's College, Gakushuin University, Tokyo, Japan.

As you know well, ICCEM is a discourse venue for making global society safer than before and is also an international meeting place providing a good opportunity for scholars and experts in the field of crisis & emergency management. Throughout human history, crisis has been an inherent part of human life. For overcoming the crisis, all human beings have tried to manage severe disasters, such as hurricane, tsunami, earthquake, terrorism, atomic power plant explosion, building collapse, pandemic disease, and so on. Even though a society might initially appear to be safe, the potential for crisis does always exist. So, it is necessary condition to set up the value and philosophy before the disaster occur. The universal value of crisis & emergency management are as follows; human life, human dignity, and human rights.

Therefore, the 9th ICCEM emphasizes the human society's universal value and global cooperation network for safe human beings. We hope that this conference will be helpful to give lots of wisdom for making human society sustainable.

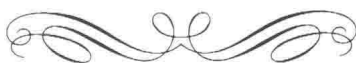
We offer our warm thanks to our global friends who are always interested in and participated in the ICCEM. We believe that, thanks to our friends' enthusiastic participation, this conference has been held annually during the last 9 years and will be successful in the future.

We look forward to seeing you with great pleasure.

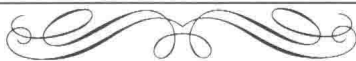
The Twelfth Day of September, 2015

The Chairperson, The 9th ICCEM Organizing Committee
Dr. Keiko Kitagawa

The President Board Members, ISCEM
Dr. An Chen, Dr. Jae Eun Lee, Dr. Norio Okada



The 1st Day—12 September, 2015



12:00–13:00

Registration & Reception

13:00–14:00

The 9th ICCEM Opening Ceremony

Moderator

Professor Ju Ho Lee(Director, ISCEM / Sun Moon University)

Opening Address

Dr. Keiko Kitagawa(Chairperson, The 9th ICCEM Organizing Committee)

Welcoming Address

Dr. Jae Eun Lee(Co-President, ISCEM, Chungbuk National University, Korea)

Dr. An Chen(Co-President, ISCEM, Chinese Academy of Sciences, China)

Dr. Norio Okada(Co-President, ISCEM, Kansai-Gakuin University, Japan)

Congratulatory Remarks

Dr. Janet D. Dilling(Florida State University, USA)

Dr. Goreti Marreiros(Former Chairperson, The 8th ICCEM Organizing Committee, Portugal)

Dr. Li Chien Chiu(Fu-Jen Catholic University, Taiwan)

13:40–14:00

Photo Session & Coffee Break

The 1st Session—Keynote Speeches 14:00-15:00

■ Keynote Speech 1 14:00-14:20

Moderator

Keiko Kitagawa(Professor, Seitoku University, Japan)

Keynote Speaker

Kazuyuki Hamada(Representative, Member of House of Councilors(Diet), Japan)

■ Keynote Speech 2 14:20-14:40

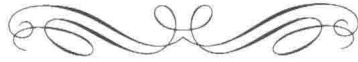
Moderator

Keiko Kitagawa(Professor, Seitoku University, Japan)

Keynote Speaker

Li Chien Chiu(President, College Entrance Examination Center, Taiwan)

(Former President, Fu-Jen Catholic University, Taiwan)



The 1st Day—12 September, 2015



■ Keynote Speech 3 14:40-15:00

Moderator

Koichiro Ohgushi(Professor, Saga University, Japan)

Keynote Speaker

Masahisa Sato(Representative, Member of House of Councilors(Diet), Japan)

15:00–15:30 *Coffee Break*

<p><i>The 2nd Session—Keynote Speeches 15:30-16:30</i></p>

■ Keynote Speech 4 15:30-15:50

Moderator

Takenori Hino(Professor, Saga University, Japan)

Keynote Speaker

Noriko Shiomitsu(Director, Nishina Center Planning, Riken, Japan)

■ Keynote Speech 5 15:50-16:10

Moderator

Suman Manahndar(Burnet Institute, Australia)

Keynote Speaker

Janet D. Dilling(Professor, Florida State University, USA)

■ Keynote Speech 6 16:10-16:30

Moderator

Jae Eun Lee(Professor, Chungbuk National University, Korea)

Keynote Speaker 6

Norio Okada(Co-President, ISCEM, Professor, Kansai-Gakuin University, Japan)
(Former Director, Disaster Prevention Research Institute, Kyoto University)

16:30–17:00 *Coffee Break*



The 1st Day—12 September, 2015



The 3rd Session 17:00-18:00

The 1st Section: Disaster Management and Culture

Moderator

Li Chien Chiu(Fu-Jen Catholic University, Taiwan)

Speakers

Keiko Kitagawa(Seitoku University, Japan), Hwang-Woo Noh(Hanbat National University, Korea),
Dong-Gym Lim(Nagasaki University, Japan), Kaname Wada(Kumamoto Gakuen University,
Japan)

: *Disaster-Prevention Sign System to be Prepared for the Next Disaster and Disaster Risk Reduction*

An Chen(1. Safety and Emergency Management Research Center, Henan Polytechnic University; 2. School
of Emergency Management, Henan Polytechnic University; 3. Institute of Policy and
Management, the Chinese Academy of Sciences)

: *Disaster and Emergency Management Culture and Phenomenon Study of Japan*

Discussants

Nae Joon Lee(Sun Moon University, Korea)

Koichiro Ohgushi(Saga University, Japan)

The 2nd Section: Disaster Management and Conversion Mechanism

Moderator

Goreti Marreiros(Institute of Engineering-Polytechnic of Porto, Portugal)

Speakers

Jae Eun Lee, Seong Cho, Da Young Kim, and Ji Ni Kim(Chungbuk National University, Korea)

: *A Comparative Study of Crisis and Emergency Management System between Boat-Sinking Disasters in Korea:
the Seohae Ferry(1993) and the Sewol Ferry(2014)*

Fei Chi(1. Safety and Emergency Management Research Center, Henan Polytechnic University; 2.
School of Emergency Management, Henan Polytechnic University; 3. Institute of Policy and
Management, the Chinese Academy of Sciences)

: *Conversion Mechanism of Emergency and Strategies for Coping It*

Discussants

Dohyeong Kim(University of Texas, USA)

Takenori Hino(Saga University, Japan)

Minsun Song(Florida State University, USA)

18:00-18:30

Moving to Dinner Restaurant

18:30-20:30

Dinner



The 2nd Day – 13 September, 2015



08:30–09:00

Registration & Reception

The 4th Session 09:00-10:20

The 1st Section: Daily Crisis and Social Networks

Moderator

Janet D. Dilling(Florida State University, Tallahassee, USA)

Speakers

Dongyan Ji, Xiaotao Wu, An Chen(School of Emergency management, Henan Polytechnic University)
: *The Study of the Impact of China's Emergency Management System on the Basis of Big Data*

Yukuo Hayashida, Masaru Kiyota, Nobuyuki Sugimachi(Saga University, Japan), **Keiko Kitagawa**
(Seitoku University, Japan), and **Jae Eun Lee**(Chungbuk National University, Korea)
: *Riding Bicycle: Daily Thinking Crisis upon Oneself*

Goreti Marreiros(Institute of Engineering–Polytechnic of Porto, Portugal)
: *Adapting the Context of Social Networks to a Multi-Agent System*

Discussants

Ju Ho Lee(Sun Moon University, Korea)

He Shanfeng(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2. School of Emergency Management, Henan Polytechnic University)

Minsun Song(Florida State University, USA)

The 2nd Section: Crisis Management, Risk Prevention, and Competitiveness

Moderator

An Chen(Henan Polytechnic University & Chinese Academy of Sciences)

Speakers

Dohyeong Kim(University of Texas, USA)
: *Using Spatial Modeling for Targeted Immunization Programs in Bangladesh*

Hao Yu(1. Safety and Emergency Management Research Center, Henan Polytechnic University; 2. School
of Emergency Management, Henan Polytechnic University)
: *Some Issues of Risk Prevention and Emergency Management in Tianjin Port Hazardous Chemicals Explosion
Accident*

Nae Joon Lee, Jung Seok Choi, and Yong Gae Cho(Sun Moon University, Korea)
: *A Study on Strengthening Competitiveness for Korean Banks Entry into Chinese Financial Market*



The 2nd Day – 13 September, 2015



Discussants

Gajendra Sharma(Kathmandu University, Nepal)

Gu Lingshuang(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2. School of Emergency Management, Henan Polytechnic University)

Chen Wenjing(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2. School of Emergency Management, Henan Polytechnic University)

Hye Won Ahn(Pusan National University, Korea)

10:10–10:40

Coffee Break

The 5th Session 10:40-12:00

The 1st Section: Safety Incident and Police Administration

Moderator

Dohyeong Kim(University of Texas, USA)

Speakers

S. Manandhar(Institute of Lowland and Marine Research, Saga University)

S. Soralump(Geotechnical Engineering Division, Department of Civil Engineering, Kasetsart University)

T. Hino(Institute of Lowland and Marine Research, Saga University)

K. Kitagawa(Seitoku University)

: *Preliminary Observation of Strong 2015 Earthquake and Aftershock in Nepal*

Miao Shanshan(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2. School of Emergency Management, Henan Polytechnic University)

: *Non-uniform Effects of Pork Price Fluctuation on Fresh Agricultural Safety Incidents*

Hye Won Ahn(Pusan National University, Korea)

: *A Study on the Relative Priority of Police Administration Governance*

Discussants

Wu Xiaotao(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2.School of Emergency Management, Henan Polytechnic University)

Seong Cho(Chungbuk National University, Korea)

Zhou Dan(1. Safety and Emergency Management Research Center, Henan Polytechnic University; 2. School of Emergency Management, Henan Polytechnic University)



The 2nd Day – 13 September, 2015



The 2nd Section: Risk Management and Crisis Management

Moderator

Gajendra Sharma(Kathmandu University, Nepal)

Speakers

Yasuaki Iwabuchi(Director & Team Leader, Japan Society of Cost Estimating and Analysis & Japan Aerospace Exploration Agency)

: *The Importance of the Sharing of Consciousness of Risk Management and Solution to the Problem: Through the Examples in Space Development in Japan*

Kyujin Jung(Tennessee State University, USA)

Minsun Song(Florida State University, USA)

: *Revisiting Lacuna in Crisis Management: Following the Sinking of MV Sewol in South Korea*

Discussants

Goreti Marreiros(Institute of Engineering–Polytechnic of Porto, Portugal)

An Chen(Henan Polytechnic University & Chinese Academy of Sciences)

12:00–13:40

Lunch & Coffee Break

The 6th Session 13:40-15:00

The 1st Section: Reducing Disaster Risk and Risk Analysis

Moderator

Jae Eun Lee(Chungbuk National University, Korea)

Speakers

Gajendra Sharma(Kathmandu University, Nepal)

: *Nepal Earthquake 2015: Lesson Learned and Mechanisms of Reducing Disaster Risk*

Wang Yun(Institute of Policy and Management, Chinese Academy of Sciences)

: *A New Idea of Risk Analysis from Linear to Non-linear Model*

Koichiro Ohgushi(Saga University, Japan)

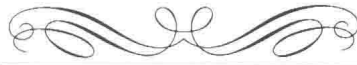
: *Risk Evaluation of Inundation Disaster in Saga Plain, Japan*

Discussants

Minsun Song(Florida State University, USA)

Yukuo Hayashida(Saga University, Japan)

Fei Chi(Henan Polytechnic University & Chinese Academy of Sciences)



The 2nd Day – 13 September, 2015



The 2nd Section: Emergency Rescue and Supply Chain

Moderator

Keiko Kitagawa(Saga University, Japan)

Speakers

Zhou Dan(1. Safety and Emergency Management Research Center, Henan Polytechnic University;
2. School of Emergency Management, Henan Polytechnic University)

: *The K.Q Effect and Optimization Theory in Emergency Rescue*

Wang Xingxing(Business School, Hennan University)

: *"Double Blind-Multiplication-Superposition" Effect in Emergency Supply Chain*

Discussants

Janet D. Dilling(Florida State University, Tallahassee, USA)

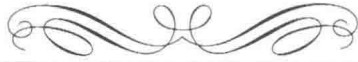
Koichiro Ohgushi(Saga University, Japan)

15:00–15:30

Coffee Break

15:30–16:30

General Meeting & Closing Ceremony



The 3rd Day – 14 September, 2015



The Directorate Board Workshop Session 10:00–12:00

Topics

1. The 10th ICCEM Schedule and Venue
2. Publication of Journal of Safety and Crisis Management(JSCM) 5(2), 6(1)
3. Future Development Directions of ISCEM
4. Etc.

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Disaster-prevention Sign System to be Prepared for the Next Disaster and Disaster Risk Reduction

Keiko kitagawa¹, HwangWoo Noh², DongGym Lim³,
Kaname Wada⁴

¹Seitoku University, Japan

²Hanbat national University, Japan

³Nagasaki University, Japan

⁴Kumamoto Gakue'n university, Japan

Key Words: *Disaster prevention sign, Disaster prevention sign system, integrated disaster prevention sign*

Background

Especially in this decade, climate change is the potential impacts for natural disaster occurrence. We aware that the most serious issue is how to manage our life and to the otherwise accepted understanding that it is man-made climate change. By 2050, it is estimated that 40 % of the global population will be living in river basins that experience severe water stress. Therefore, we will have the problem that the preparedness to the flood/landslide with the climate change is important in future. it is required to indicate that the preparation to all disasters is necessary.

The GAR (Global Assessment Report on Disaster Risk Reduction 2015) emphasize that “Most disasters that could happen have not happened yet”.

Disaster-prevention sign system is a system that can deliver warning notification of evacuation from disaster that has occurred to the people suffering from the disaster.

Objective of the Study

The present study is aimed at suggesting development of a design guideline for a disaster-prevention sign system by analyzing actual example of several countries' disaster prevention plan.

We surveyed various disaster prevention sign articles and websites searching to investigate signs and signing systems, especially we selected Asian countries, the United States and Euro countries for comparison among those countries.

The purpose of our study is figure out a disaster prevention sign designated comprehensive and integrated design which is a new way of thinking about how we design the sign to easy understanding and secure peoples from disaster.

This is the most important way of build up better safer community to shifting any natural hazard for reduction of suffer risk management.

Result

Peoples who worry if natural disaster were occurred, Peoples who worry if natural disaster were occurred, therefore they would be able to active for prepare by themselves. It is no doubt to say that anyone must explore to find out safer route for evacuation place when disaster was occurred.

Fundamental learning of disaster prevention sign is utilized as tool for evacuate learning in primary school as well as life-long learning in Japan. We investigated various kinds of disaster sign, and we found out most of sign are different design, color, size and different meanings.

We defined that classification of sign system is categorized 5 divisions such as orientation sign, directional sign, identification sign, regulatory sign and information sign. Especially information sign may give instruction or introduction to peoples to understand how to make use of objects.

Nevertheless, no clear guideline for design of sign system has been set up and developed for safety community. Difference of signs is simply treated as common city making it difficult for tourists if it must be effectively cope with any disasters.

Conclusion

Following conclusions could be made from the present study on the sign system. As the first principal for developing sign system, the highest priority should be given to protection of peoples. Effective prevention of disaster would be possible the integrated sign system developed. Therefore safe and comfortable sign system should be developed to improve dwelling conditions of peoples and by thus, to safety both peoples and visitors at the same time.

GAR addressed that Sustainable development cannot be achieved unless disaster risk is reduced. It is crucial issue that disaster prevention sign has to integrated to understand and act upon the disaster prevention with government, public sector and the private sector have the opportunity and obligation to work together to build up a safer future. Disaster risk reduction can play an important role in advancing their agendas through its close links with poverty reduction, sustainable growth and shared prosperity. Integrated disaster prevention sign system contribute for risk management because of that human beings couldn't manage disasters but do reduce of risks, The priority of our next viewpoint of the study is integrated sign would be developed.

Disaster and Emergency Management Culture and Phenomenon Study of Japan

CHEN An^{1,2,3}, ZHAO Yan^{1,3}

Safety and Emergency Management Research Center, Henan Polytechnic University, Jiaozuo, 454000, P. R. China

School of Emergency Management, Henan Polytechnic University, Jiaozuo, 454000, P. R. China

Institute of Policy and Management, the Chinese Academy of Sciences, Beijing, 100190, P. R. China

(Abstract) Located between the Pacific Ocean plate and the Eurasia plate, Japan has many disasters such as earthquake and volcano, along with the tsunami. There are also some other kinds of disasters because Japan is surrounded by ocean. Someone says that Japan is a cursed country. In fact, the history of ancient Japan has been destroyed by the above disasters so that we can find few history remains in four main islands. Because of such geographic situation and history, Japan has very special culture, e.g., the life and death view and impermanent view. Some special Japanese Culture such as Samurai Drive (Bushido), Haiku Poem and mystery fiction. Some films such as Rashomon(罗生门) and Departures(入殓师) also reflect the culture carefully. Almost the best mystery fictions are created by UK and Japan writers, that's not by accident. The natural disaster environment obliged them to be logical and intricately detailed. Such personal character match the mystery fiction very well. Of course, UK mystery fiction is deferent to that of Japan, the former emphasizes the leading character while the later emphasizes the scenario. Even though Edogawa Ranpo(江戸川乱步) and Keigo Higashino(东野圭吾) immortalized some leading characters, more writers focus on the story itself and the detectives are always vague. Death is one part of life, this is depicted by Murakami Haruki in his famous novel <Norwegian wood>, In my knowledge, there are much more cases of commit suicide in Japan, and the novel "Paradise Lost" written by Junichi Watanabe gives a good explanation of the culture.

Key Words: Disaster, Emergency Management, Culture, Japan