

**4th IFIP Conference
on Information Technology in Disaster Risk Reduction
ITDRR - 2019
October 9 - 10, 2019
Kyiv, Ukraine**



ITDRR-2019 Program

[Kyiv National University of Culture and Arts](#)



Yevhena Konovaltsia Str., 36, Kyiv, 02000

WEDNESDAY, 9 OCT., 2019

14:00 – 17:00 - **Registration**

Konovaltsya str., 36, Building 2, Lobby

17:00 **Welcome Reception**

Konovaltsya str., 36, Building 2, Room 108

THURSDAY, 10 OCT., 2019

09:00 – 10:00 **Registration** - Konovaltsya str., 36, Building 2, Lobby

10:00 – 11:30, ITDRR 2019 OFFICIAL OPENING & SESSION I

CHAIR: YUKO MURAYAMA

ISSUES IN THE USE OF THE RECOVERY WATCHER FOR SITUATION AWARENESS IN DISASTER AND INCLUSIVE COMMUNICATIONS

Yuko Murayama¹ and Kayoko Yamamoto²

¹Tsuda University, ²The University of Electro-Communications, Japan

WORKSHOP PROGRAM ON DISASTER PREVENTION AND MITIGATION FOR YOUNG GENERATION UTILIZING DISASTER INFORMATION TWEETING AND MAPPING SYSTEM

Osamu Uchida¹, Sachi Tajima², Yoshitaka Kajita³, Keisuke Utsu⁴, Yuji Murakami⁵, and Sanetoshi Yamada⁶

¹Dept. Human and Information Science, Tokai University, Hiratsuka, Kanagawa, Japan

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TOWARDS 3D SIMULATION TO VALIDATE AUTONOMOUS SYSTEMS INTERVENTION IN DISASTER MANAGEMENT ENVIRONMENT

Tullio Tanzi and Matteo Bertolino

LTCl, Télécom Paris, Institut Polytechnique de Paris, France

CLASSIFICATION OF SOCIAL MEDIA MESSAGES POSTED AT THE TIME OF DISASTER

Kemachart Kemavuthanon¹ and Osamu Uchida²

¹ Graduate School of Science and Technology, Tokai University, Kanagawa, Japan

² Dept. Human and Information Science, Tokai University, Kanagawa, Japan

AN EARTH COORDINATE SYSTEM FOR EARTHQUAKE FORECASTING USING SLHGN

Benny Benyamin Nasution, Rahmat Widia Sembiring, Muhammad Syahrudin, Nursiah Mustari, Abdul Rahman Dalimunthe, Nisfan Bahri, Berta br Ginting, Zulkifli Lubis

Politeknik Negeri Medan, Indonesia

IMPACTMAP: A COLLABORATIVE ENVIRONMENT TO SUPPORT IMPACT PROJECTION OF COMPLEX DECISION

Juliana Baptista dos Santos França¹, André Viana Tardelli², Raffael Siqueira de Souza², Angélica Fonseca da Silva Dias², Marcos Roberto da Silva Borges²

¹ *Federal Rural University of Rio de Janeiro (UFRRJ), Brazil*

² *Federal University of Rio de Janeiro (UFRJ), Brazil*

11:30 – 11:45, COFFEE BREAK

11:45 – 13:00, SESSION II

CHAIR: OSAMU UCHIDA

(SKYPE) EXTERNALITIES AND MISALIGNED INCENTIVES IN CRITICAL INFRASTRUCTURE PROTECTION

Jose J. Gonzalez

Centre for Integrated Emergency Management (CIEM), Faculty of Engineering and Science, Dept for ICT, University of Agder, Grimstad, Norway

(SKYPE) BUILDING RESILIENT COMMUNITY THROUGH PLANT BACK BETTER INITIATIVE – GUIDING PRINCIPLES AND BEST PRACTICES

Yanling Lee¹, Wei-Sen Li¹, Yi-Ching Liu², Ke-Hui Chen¹, Chi-Ling Chang¹, Kenji Watanabe³

¹*APEC Emergency Preparedness Capacity Building Center, Taiwan*

²*National Science and Technology Center for Disaster Reduction, Taipei, Taiwan*

³*The Nagoya Institute of Technology, Japan*

(SKYPE) BUILDING RESILIENT COMMUNITY THROUGH PUBLIC PRIVATE PARTNERSHIP – FROM SCIENCE TO ACTION IN NEPAL

Wei-Sen Li, Yi-Ching Liu, Chi-Ling Chang, Ke-Hui Chen, Yanling Lee

National Science and Technology Center for Disaster Reduction, Taipei, Taiwan

(SKYPE) MOBILE SITUATIONAL CENTER FOR PREVENTION AND REDUCTION OF EMERGENCY SITUATION

Serghei Peancovschii¹ and Serghei Ohrimenco²

¹*General Inspectorate of Emergency Situations of the Republic of Moldova*

²*Academy of Economic Studies of Moldova*

CYBER CRISIS MANAGEMENT ROLES – A MUNICIPALITY RESPONSIBILITY CASE STUDY

Grethe Østby and Basel Katt

Norwegian University of Science and Technology, Norway

MATHEMATICAL MODEL OF MANAGEMENT OF THE INTEGRAL RISK OF EMERGENCY SITUATION ON THE EXAMPLE OF FIRES

Kravtsiv S.¹, Sobol O.¹, Komyak V.² and Al'boschiy O.²

¹*National University of Civil Defence of Ukraine, Kharkiv, Ukraine*

²*V.N. Karazin Kharkiv National University, Kharkiv, Ukraine*

13:00 – 14:00 LUNCH

14:00 – 15:30 SESSION III

CHAIR: JUN SASAKI

PROPOSAL OF EVACUATION SUPPORT SYSTEM AND EVALUATION BY MULTI-AGENT SIMULATION IN A REGIONAL DISASTER

Makoto Kitsuya and Jun Sasaki

Iwate Prefectural University, Iwate, Japan

TOWARDS AN INDOOR NAVIGATION APPLICATION FOR EMERGENCY EVACUATIONS AND PERSONS WITH VISUAL IMPAIRMENTS – EXPERIENCES FROM FIRST RESPONDERS AND END USERS

G. Anthony Giannoumis, Terje Gjøsæter and Cristina Paupini

Oslo Metropolitan University, Oslo, Norway

RISK DATA HUB: IDENTIFYING CHALLENGES IN DISASTER RISK REDUCTION

Tiberiu Eugen Antofie, Stefano Luoni and Francisco Rios Diaz

Joint Research Centre of the European Commission, Ispra, Italy

ENVIRONMENTAL MONITORING AND POPULATION PROTECTION FROM ENVIRONMENTAL FACTORS

Tetiana Kovaliuk¹, Nataliya Kobets², and Dmytro Ivashchenko¹

¹*National Technical University of Ukraine, Ukraine*

²*Borys Grinchenko Kyiv University, Ukraine*

ECOLOGICAL INTERNET RESOURCE AS A TOOL FOR INFORMATION CONTROL OF THE HARMFUL EFFECTS OF ENVIRONMENTAL POLLUTION

Tetiana Kovaliuk¹, Nataliya Kobets², Olena Chaikovska³, Dmytro Ivashchenko¹

¹*National Technical University of Ukraine, Ukraine*

²*Borys Grinchenko Kyiv University, Ukraine*

³*Kyiv National University of Culture and Arts, Ukraine*

15:30 – 16:00 COFFEE BREAK

16:00 – 17:30 SESSION IV

CHAIR: IGOR GREBENNIK

INFORMATION TECHNOLOGIES FOR ASSESSING THE EFFECTS OF CLIMATE CHANGE AND NATURAL DISASTERS IN SOCIO-ECONOMIC SYSTEMS

Yevhen Hubarenko, Igor Grebennik, Valerii Semenets

Kharkiv National University of Radio Electronics, Ukraine

INFORMATION TECHNOLOGY REENGINEERING OF THE ELECTRICITY GENERATION SYSTEM IN POST-DISASTER RECOVERY

Yevhen Hubarenko, Igor Grebennik, Maryna Hubarenko, Ata Ovezgeldyyev

Kharkiv National University of Radio Electronics, Ukraine

INFORMATIVE DESCRIPTION OF AERIAL PHOTOGRAPHS IN THE CASE OF THE USE OF AERIAL MONITORING SYSTEMS IN EMERGENCY SITUATIONS

V. Barannik¹, A. Musienko¹, I. Gurzhii² and P. Gurzhii²

¹*Ivan Kozhedub Kharkiv National University of Air Force, Ukraine*

²*Heroes of Krut Military Institute of Communications and Informatization, Ukraine*

DIGITAL MARKETING SUPPORT SYSTEM FOR AGRICULTURE

Iryna Borodkina¹ and Heorhii Borodkin²

¹*Kiev National University of Culture and Arts, Ukraine*

²*National University of Life and Environmental Sciences of Ukraine, Ukraine*

THE PROBLEM OF CULTURAL HERITAGE PRESERVATION IN THE CONTEXT OF THE ARMED CONFLICT GROWTH

Yuliia Trach, Maryna Tolmach, Olena Chaikovska, Kateryna Kotsiubivska

Kyiv National University of Culture and Arts, Ukraine

CONCEPTUAL MODEL OF DEBRIS FLOW INFORMATION SYSTEM

Valentina Nikolova¹, Plamena Zlateva², Boyko Berov³, Dimiter Velev⁴

¹*University of Mining and Geology, Sofia, Bulgaria*

²*Institute of Robotics, Bulgarian Academy of Sciences, Sofia, Bulgaria*

³*Geological Institute "Strashimir Dimitrov", Bulgarian Academy of Sciences, Sofia, Bulgaria*

⁴*Science Research Center for Disaster Risk Reduction, University of National and World Economy, Bulgaria*

AD-HOC ARCHITECTURE OF INFORMATION SYSTEMS FOR DISASTER RISK MANAGEMENT

Oleksii Kovalenko¹ and Dimiter Velev²

¹*Institute of Mathematical Machines and Systems Problems NAS of Ukraine, Ukraine*

²*Science Research Center for Disaster Risk Reduction, University of National and World Economy, Bulgaria*

19:00 GALA DINNER