FIRST IFIP CONFERENCE ON INFORMATION TECHNOLOGY IN DISASTER RISK REDUCTION

ITDRR 2016

UNIVERSITY OF NATIONAL AND WORLD ECONOMY
SOFIA, BULGARIA
NOVEMBER 16 - 18TH, 2016

HTTP://ITDRR.UNWE.BG/

AGENDA

Big Conference Hall, UNWE

November 16th, 2016

15:00 – 18:00 Registration

19:00 **Welcome Reception**

November 17th, 2016

09:30 – 10:00 – Registration

10:00 – 12:00 – Conference Official Opening

- **Opening Remarks by *Prof. Dr. Dimiter Velev*, Conference General chair**

- **UNWE Rector's address**

- **NATO CRISIS MANAGEMENT AND DISASTER RESPONSE CENTRE OF EXCELLENCE INTRODUCTION**
  COL **Vassil Roussinov** –COE Director /COL **Orlin Nikolov**- Capabilities Branch Chief
  Crisis Management and Disaster Response Centre of Excellence (CMDR COE), Sofia

- Keynote speech 1: **RAISING THE PUBLIC AWARENESS ON DISASTER RISKS**
  Senior commissar ***Alexandar Dzhartov***
  Director of Department "Critical Infrastructure, Prevention and Control"
  DG Fire Safety and Civil Protection, Ministry of Interior, Bulgaria

- Keynote speech 2: **FLOOD RISK FROM SMALL DAMS IN BULGARIA**
  Prof. Dr. **Mariyana Nikolova** - Acting Scientific Secretary
  Department of Geography, NIGGG - Bulgarian Academy of Sciences

- **Discussion**

12:30 – 14:00 – Lunch

14:00 – 15:40 – First Session

- **USABILITY EVALUATION OF INFORMATION TECHNOLOGY IN DISASTER AND EMERGENCY MANAGEMENT**

  Tilo Mentler, Henrik Berndt, Daniel Wessel, Michael Herczeg

  IMIS, University of Luebeck, Germany

- **FORMAL METHODS FOR SAFE DESIGN OF AUTONOMOUS SYSTEMS DEDICATED TO RISK MANAGEMENT**

  Sophie Coudert, Tullio Joseph Tanzi

  Telecom ParisTech, France

- **USING THE SCORECARD APPROACH TO MEASURE SEISMIC SOCIAL RESILIENCE IN NABLUS, PALESTINE**

  Vania Cerchiello, Paola Ceresa, **Ricardo Monteiro**

  Institute for Advanced Study of Pavia, Italy

- **A COMPREHENSIVE DECISION SUPPORT SYSTEM FOR ENHANCED EMERGENCY DECISION MANAGEMENT AND TRAINING**

  Odd Steen[1], Andrew Pope[2], Marion Rauner[3], Nicklas Holmberg[1], Simon Woodworth[2], Sheila O'riordan[2], Helmut Niessner[4], Karen Neville[2]

  [1] Dept. of Informatics, Lund University, Sweden

  [2] Business Information Systems, University College Cork, Ireland

  [3] Department of Innovation and Techn. Management, University of Vienna, Austria

  [4] School of Business and Economics, University of Vienna, Austria

- **THE GENERATION OF A GROUND TRUTH MODEL, IN REAL-TIME, AS A SUPPORT TO CRISIS MANAGEMENT**

  Audrey Fertier[1], Anne-Marie Barthe-Delanoë[2], Aurélie Montarnal[1], Sébastien Truptil[1], Frédérick Bénaben[1]

  [1] Centre Génie Industriel, Université de Toulouse, Albi, France

  [2] Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France

15:40 – 16:00 – Coffee Break

16:00 – 17:40 – Second Session

- **CLIMATE DETERRENCE: DISASTERS AND SECURITY AFTER COP 21**

  Raul K.S.Boeno[1], Viriato Soromenho-Marques[2]

  [1] Brazilian Army and University of Lisbon, Portugal
  [2] University of Lisbon, Portugal

- **URBAN PLANNING WITH THE COMBINED METHOD OF PERCEPTION-DRIVEN JOINT LEARNING APPROACH (PEDJOLA) AND GEOGRAPHIC INFORMATION SYSTEMS (GIS) MODEL FOR DISASTER MITIGATION**

  Rahmat Widia Sembiring[1], Benny Benyamin Nasution[1], M. Syahruddin[1], Afritha Amelia[1], Bakti Viyata Sundawa[1], Zulkifli Lubis[1], Prayudi Nastia[2], Suhaili Alifuddin[1], Junaidi[1], Handri Sunjaya[1], Ismael[1], Gunawan[1]

  [1] Politeknik Negeri Medan, Indonesia
  [2] STIKOM Tunas Bangsa Pematangsiantar, Indonesia

- **THE PLANNING OF SMART CITY TO MITIGATE THE IMPACTS OF NATURAL DISASTER IN NORTH SUMATERA**

  Dedy Hartama[1,3], Rahmat Widia Sembiring[2], Benny Benyamin Nasution[2], M. Syahruddin[2], Prayudi Nastia[1], Abidin Lutfhi Sembiring[3], Saifullah[1], Eka Irawan [1,3], Sumarno[1,3]

  [1] STIKOM Tunas Bangsa Pematangsiantar, Indonesia
  [2] Politeknik Negeri Medan, Indonesia
  [3] Universitas Sumatera Utara, Indonesia

- **FORECASTING NATURAL DISASTERS OF TORNADOS USING MHGN**

  Benny Benyamin Nasution, Rahmat Widia Sembiring, Bakti Viyata Sundawa, Gunawan, Afritha Amelia, Ismael, Handri Sunjaya, Suhaili Alifuddin, Morlan Pardede, Junaidi, Muhammad Syahruddin, Zulkifli Lubis

  Politeknik Negeri Medan, Medan 20155, Indonesia

- **DISCUSSION**

19:00 Conference Banquet

November 18th, 2016

9:30 – 10:50 – First Session

- **A PROPOSAL ON PATIENT TRANSPORT DECISION MAKING IN MULTIPLE HOSPITALS IN A LARGE-SCALE DISASTER**

  Jun Sasaki

  Faculty of Software and Information Science of Iwate Prefectural University, Japan

- **KEY FACTORS TO IMPROVE THE INVOLVEMENT OF DIGITAL VOLUNTEERS IN DISASTER MANAGEMENT**

  Roberto dos Santos Rocha[1,2], Adam Widera[1], **Roelof van der Berg[1]**, João Porto de Albuquerque[3,2], Bernd Helingrath[1]

  [1] ERCIS, University of Münster, Münster, Germany

  [2] ICMC, University of São Paulo, São Carlos, Brazil

  [3] CIM, University of Warwick, Coventry, United Kingdom

- **BETTER ACCESS TO TERMINOLOGY FOR CRISIS COMMUNICATIONS**

  Mikael Snaprud[1], **Jaziar Radianti[2]**, Dag Svindseth[3]

  [1] Tingtun AS and University of Agder, Norway

  [2] Centre for Integrated Emergency Management, University of Agder, Norway

  [3] Fire Chief at East Agder Fire Department, Norway

- **TOWARDS EUROPEAN DIMENSIONS OF CITY RESILIENCE**

  Jaziar Radianti

  Centre for Integrated Emergency Management, University of Agder, Norway

10:50 – 11:10 – Coffee Break

11:10 – 12:30 – Second Session

- **URBAN DISASTER SIMULATION INCORPORATING HUMAN PSYCHOLOGICAL MODELS IN EVACUATION BEHAVIORS**

  Tatsuya Yamazaki[1], Hiroyuki Tamai[1], Yasunori Owada[2], Kiyohiko Hattori[2], Shin'ichi Taira[2], Kiyoshi Hamaguchi[3]

  [1] *Graduate School of Science and Technology, Niigata University, Niigata, Japan*

  [2] *Resilient ICT Research Center, National Institute of Information and Communications Technology, Sendai, Japan*

  [3] *Wireless Networks Research Center, National Institute of Information and Communications Technology, Yokosuka, Japan*

- **STALKING RESILIENCE: CITIES AS VERTEBRAE IN SOCIETY'S RESILIENCE BACKBONE**

  Jose J. Gonzalez[1], Magnus Bång[2], Colin Eden[3], Henrik Eriksson[2], Raquel Gimenez[4], Josune Hernantes[4], Susan Howick[3], Patricia Maraña[4], Igor Pyrko[3], Jaziar Radianti[1], Amy Rankin[2], Jose Mari Sarriegi[4]

  [1] *Centre of Integrated Emergency Management, University of Agder, Grimstad, Norway*

  [2] *Linköping University, Dept. of Computer and Information Science, Linköping, Sweden*

  [3] *University of Strathclyde, Dept. of Management Science, Glasgow, UK*

  [4] *University of Navarra, Faculty of engineering, Dept. of Industrial Organization, Donostia/San Sebastian, Spain*

- **UNDERSTANDING THE IMPORTANCE OF PROPER INCENTIVES FOR CRITICAL INFRASTRUCTURES MANAGEMENT: HOW SYSTEM DYNAMICS CAN HELP**

  Denis Trček[1], **Jose J. Gonzalez[2]**

  [1] *Laboratory of e-media, Faculty of Computer and Information Science, University of Ljubljana, Ljubljana, Slovenia*

  [2] *Centre for Integrated Emergency Management, University of Agder, Grimstad, Norway*

- **M&S SUPPORT FOR CRISIS AND DISASTER MANAGEMENT PROCESSES AND CLIMATE CHANGE IMPLICATIONS**

  Orlin Nikolov[1], Nikolay Tomov[2], Irena Nikolova[3]

  [1] *Crisis Management and Disaster Response Centre of Excellence, Sofia, Bulgaria*

  [2] *Bulgarian Modeling&Simulation Association - BULSIM, Sofia, Bulgaria*

  [3] *Space Research and Technology Institute, Bulgarian Academy of Sciences, Bulgaria*

12:30 – 14:00 – Lunch

14:00 – 16:30 – Third Session

- **DISASTER REDUCTION POTENTIAL OF IMPRESS PLATFORM TOOLS**

  Nina Dobrinkova[1], Antonis Kostaridis[2], Andrej Olunczek[3], Marcel Heckel[3], Danae Vergeti[4], Sofia Tsekeridou[4], Geert Seynaeve[5], Andrea De Gaetano[6]

  [1] *Institute of Information and Communication Technologies - BAS, Bulgaria*

  [2] *SATWAYS, Greece;* [3] *IVI-Fraunhofer, Germany;* [4] *INTRASOFT, Greece*

  [5] *Ecomed, Belgium;* [6] *CNR, Italy*

- **ASSESSMENT OF FLOOD VULNERABILITY USING FUZZY LOGIC AND GEOGRAPHICAL INFORMATION SYSTEMS**

  Valentina Nikolova[1], Plamena Zlateva[2], Xue-jun Zong[3]

  [1] *Department of Geology and Geoinformatics, Faculty of Geoexploration, University of Mining and Geology, Sofia, Bulgaria*
  [2] *ISER - Bulgarian Academy of Sciences, Sofia, Bulgaria*
  [3] *Shenyang University of Chemical Technology, Shenyang, China*

- **AGENTS ORIENTED APPROACH TO BIG DATA AGGREGATION IN THE DISASTERS AWARENESS**

  Oleksiy Kovalenko[1], **Dimiter Velev[2]**

  [1] *Institute of Mathematical Machines & Systems Problems, National Academy of Sciences, Ukraine*
  [2] *Department of Information Technology and Communications, UNWE, Bulgaria*

- **VIRTUAL REALITY APPLICATION IN DISASTER REDUCTION TRAINING**

  Dimiter Velev[1], Zhong-Jun Yang[2], Kan He[2]
  [1] *Department of Information Technology and Communications, UNWE*
  [2] *Shenyang University of Chemical Technology, Shenyang, China*

- ## Discussion and Closing Conference Remarks

19:00 Goodbye Party