RESULTS REPORT

15th MULTI-HAZARDS SYMPOSIUM 2019

BUILDING RESILIENCE THROUGH DISASTER RISK REDUCTION, RESPONSE, RECOVERY & RECONSTRUCTION IN THE 2030 AGENDA

TECNOLÓGICO DE MONTERREY
OCTOBER 29-31, MEXICO CITY
ABOUT TECNOLÓGICO DE MONTERREY

We are a non-profit educational institution that works with and for society in order to transform Mexico and the world through education.

OUR DIFFERENTIATORS

1. Our new challenge-based educational model, TEC 21
2. Our institutional and international prestige
3. Our affiliations with alumni, companies and institutions
4. Our focus on humanity-based education

OUR VALUES

The principles in which our Vission, our educational philosophy, our identity and all of our Campus and academic entities unity, are based in the Tecnológico de Monterrey founders’ ideals. Also, they are an ethical reference for the group of norms and reglaments that determine, in a direct way, institutional and academic decisions and their behavior.

INNOVACIÓN
INNOVATION

INTEGRIDAD
INTEGRITY

COLABORACIÓN
COLLABORATION

CIUDADANÍA GLOBAL
GLOBAL CITIZENSHIP

EMPATÍA E INCLUSIÓN
EMPATHY & INCLUSION
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40% of the world’s natural disaster events and 90% of the world’s earthquakes occur in the Asia Pacific. In a region of inevitable disasters, improving the coordination and sharing of knowledge across borders is essential to deliver effective disaster reduction and recovery measures.

As one of the most disaster-prone regions in the world, frequent natural hazards – from tsunamis to floods to volcanic eruptions – threaten the lives and livelihoods of millions of people around the Pacific Rim and result in catastrophic destruction and damage.

The losses and impacts that characterize disasters have much to do with the exposure and vulnerability of people and places as they do with the severity of the hazard event. While natural hazards cannot be eliminated, by sharing best practice, knowledge, and research, we can better understand risks and minimize the threat to human life.

Over the past decade, the Multi-Hazards Hub hosted by Tohoku University in Sendai, Japan has worked to harness the collective capabilities of APRU universities for cutting-edge research on the shared threat of natural hazards facing the region.

APRU collaborates with its members and partners to understand how academics, policy leaders, government, and communities can work together to facilitate disaster risk reduction and recovery. Whether it is enhancing the reach of the Sendai Framework or sharing expertise to mitigate the danger in countries most vulnerable to disaster risks, together we can build a more resilient Asia Pacific.

This year, Tecnológico de Monterrey, as part of the Asia Pacific Rim Universities, hosted the 15th edition of the Multi-Hazards Symposium in hopes to provide a follow up on these strategies.
We invited researchers and students from all over the Pacific Rim whose main line of research covers Multi-Hazards and who attempt to give these issues real and visible solutions.

We received register for over 150 researchers, governmental authorities, academics, private consultants and NGO’s representatives.

While all of the contents covered different areas of specialty destined to tackle disaster risk management, it also provided a space for experts to create further networks of collaboration.

*Source: Participants register table taken during the two days of the Symposium*
KEYNOTE SPEAKERS

MS. MAMI MIZUTORI
Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and head of the United Nations Office for Disaster Risk Reduction

The role of the UN Office for Disaster Risk Reduction is to support countries and stakeholders in the implementation of the Sendai Framework for Disaster Risk Reduction (2015-2030). The Special Representative ensures the strategic and operational coherence between disaster risk reduction, climate change and sustainable development agendas as well as the linkage with the UN Secretary-General’s prevention agenda and with humanitarian action.

SRSG Mizutori was part of the APRU Multi-Hazards Core Group Panel, during the second day of the Symposium. She opened the floor by giving a speech on the role of the Scientific Community and its responsibility in the implementation of the Sendai Framework and collaboration with the UN in matter of achieving the set goals in the 2030 agenda. She encouraged universities to participate in prevention programs in their communities.

Besides SRSG Mizutori, the integrants of this panel were Prof. Osamu Murao and Takako Izumi from Tohoku University, Prof. Rajib Shaw from Keio University, Prof. Hugo Romero from University of Chile and Vice-Rector of International Affairs of the Tecnológico de Monterrey, José Manuel Páez.

DR. KIT MIYAMOTO
CEO, Miyamoto International & President, Miyamoto Relief

Expert to World Bank projects, including a seismic risk mitigation project in Istanbul, Manila, Mongolia, Indonesia and Myanmar. His team conducted damage assessments after the 2010 Haiti earthquake. He is currently involved with earthquake reconstruction in Nepal, Mexico and Indonesia while his team conducts critical disaster preparedness policy work for USAID in Latin America and for the World Bank in Bangladesh.

His conference gave us insight on the challenges of seismic engineering in Latin America, according to his experience as a private contractor and a leader on a relief NGO.
KEYNOTE SPEAKERS

DR. OSAMU MURAO  
Chairperson, APRU Multi-Hazard Program Core Group

He is also a professor at the International Research Institute of Disaster Science (IRIDeS) at Tohoku University, and founder of the International Strategy for Disaster Mitigation Laboratory (ISDM). His research focus on post-disaster recovery process & urban design, and the relationship between physical environment and disaster; he has investigated the post-disaster recovery process for damaged areas in Taiwan, Turkey, Sri Lanka, Thailand, Indonesia, Peru, Philippines, U.S.A. and Japan, among others.

His Lecture shared light on his comparative Study of Post-disaster Recovery Curves for Past Catastrophic Disasters in the World.

DR. RAJIB SHAW  
Professor, Graduate School of Media & Governance, Keio University

Shaw is also Chair of the United Nations Science Technology Advisory Group (STAG) for Disaster Risk Reduction, Co-chair of the Asia Science Technology Academic Advisory Group (ASTAAG), Coordinating Lead Author for Asia chapter of IPCC’s 6th Assessment Report, Senior Fellow of Institute of Global Environmental Strategies (IGES) Japan, and the Chairperson of SEEDS Asia and CWS Japan.

His Keynote Lecture referred to the Advances & potentials of science & technology in implementation of Sendai Framework & beyond,

MR. WALTER COTTE  
Regional Director for the Americas International Federation of Red Cross and Red Crescent Societies (IFRC).

Mr. Cotte has more than 40 years of humanitarian and development experience. He has served as a consultant with the United Nations Disaster Assessment and Coordination system & the International Search and Rescue Advisory Group, was a member of the Colombian Government’s National Disaster Board and of the board of the Colombian National Fire Association.

He shared with us the strategies to achieve the Humanitarian Imperative: Effective Response and Resilience in future disaster response situations.
PANELS & PANELISTS

PANEL 1: ARCHITECTURE AND URBAN DESIGN FOR DISASTER RISK REDUCTION

MODERATED BY DR. JOSE MANUEL PAEZ

Shabir Ahmad Kabirzad (REMOTE)
Evaluating Resilient Capitals in Kabul City.

Fernando Aragón-Durand
Building urban resilience to climate change: the case of Mexico City megalopolis.

Layla Jorquera (REMOTE)
Planning Parameters.

Ivan Paredes Tamayo
Fire Prevention Technology to Minimize Loss of Life During and After a Major Catastrophe.

Jorge López
Hydrometeorological risk prevention integral model in Veracruz city.

Siau Chen Chian
Seismic Resilience of Cities: What Academics, Industry and Authorities can do.

PANEL 2: EDUCATION AND RESILIENCE

MODERATED BY DR. TAKAKO IZUMI

Yixuan Chen
Community Disaster Risk Reduction during Urbanization of Sichuan, China.

Carol Mutch
How well are principals and teachers prepared for their role in disaster response and recovery?

Gerardo Castañeda Garza
House of cards: A diagnosis of needs and a proposal of an instructional design for home insurance & natural disasters education in Mexico City.

Zakaria Almsherqi
Strategies for disaster risk reduction in the education sector.

Hector Becerril & Rocio López
University’s role for achieving risk-informed sustainable development: challenges and opportunities in the pacific south region of Mexico.
PANELS & PANELISTS

PANEL 3: SCIENCE AND TECHNOLOGY

MODERATED BY PROF. SAJJAD KESHTKAR

Hirohisa Kojima
Current and Future of Space Debris Problem: How Dangerous is and How Can We Solve it?

Diana Urquiza, Suriel García, Miguel Hernández & Rodrigo Baños
Acoustic Measurements Methodology for Paging Systems Evaluation in Educational Facilities.

Mario Alvaro Ruiz Velazquez
Multi Hazard Early Warning Sistems in Mexico.

Alejandro Ramos & Sarah Cosentino
The 2017 Mexico earthquake audio rescue response and its aftermath: the evolution of social action

Rocío Castillo-Aja
Improving Tsunami and Earthquake Chronologies for the Mexican Pacific Coast.

PANEL 4: CEMEX-TEC CENTER FOR SUSTAINABLE COMMUNITIES

MODERATED BY PROF. DAVID ORTEGA

Araceli Ortega Díaz
Natural Disasters and Poverty: An Improved Analytical Framework.

Anna Fernanda Guillén de la Fuente
CEMEX TEC Center for Sustainable Communities, Social Processes.

Mariana Zamudio Guajardo
CEMEX TEC Center for Sustainable Communities, Social Innovation.

Luis Villarreal Ugarte y Carmen Armenta Menchaca
Participatory design and construction, a new way forward for the community of Villahermosa, Chiapas.

Nancy Contreras-Rios
Addressing migrant vulnerability & social disaster: Central American & Mexican Migration to the United States-Mexico Border.

Karina Denisse Cantú López
CEMEX-TEC Center for Sustainable Communities: Ambient studies as a starting point for change.
PANELS & PANELISTS

PANEL 5: AN EMIC GAZE, INDIGENOUS PERSPECTIVES ON DISASTER RISK REDUCTION

MODERATED BY PROF. ANA LUCIA HILL

Dr. Christine Kenney (Te Āti Awa, Ngāti Toarangatira, Ngāi Tahu)
Indigenous communities and DRR

Mrs. Lucy Kaier (Ngāi Tahu)
Preparedness

Mrs. Winifred Geddes (Ngāti Awa, Ngāi Tai)
Response

Dr. Suzanne Phibbs (Ngāi Tahu)
Recovery

6. SOCIAL INNOVATION PROJECTS FOR RESILIENCE DEVELOPMENT IN INDIGENOUS COMMUNITIES

MODERATED BY PROF. DAVID ORTEGA

Prof. David Ortega

Prof. José Agustín López
**Panel 7: Health and Poverty**

**Moderated by Dr. Takako Izumi**

**Junko Otani**  
Effect of natural disasters on perinatal health.

**Gloria Perez Salazar**  

**Ai Tashiro**  
OW green infrastructure affects human health and well-being in the post-disaster recovery?

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**Panel 8: Public Policies for Risk Reduction**

**Moderated by Prof. Ana Lucia Hill**

**Alfredo Mahar Lagmay**  
Anticipatory planning in CCA-DRR.

**Pía Navarrete Pimiento**  
Incorporation of the volcanic hazard in emergency plans: evolution, scope and challenges in Chile.

**Rafael Van Dyck & Fernando Aragon**  
Developement and Risk.

**Giovanni Hernandez**  
Resilience of Complex Infrastructure Systems under conditions of deep uncertainty: México’s fuel transportation & storage infrastructure.

**Juan Carlos Torres Sánchez**  
Disaster Risk Management System of Colombia & Resilience.

**Kristoffer Berse**  
Science-policy interface for Disaster Risk Reduction: the case of Indonesia and The Philippines.
**PANELS & PANELISTS**

**PANEL 9: EARTH SCIENCES AND CLIMATE CHANGE**

**Moderated by Dr. Jose Manuel Paez**

**Rolando Talampas**
Rising Tide Can Also Sink Some Boats: Some Dangers Facing Asian Coastal Regions.

**Ricardo Gabriel Suarez & Fabián Carranza**

**Ma. Teresa Ramírez-Herrera**
Geologic record of Tsunami and Great Earthquakes in Mexico: Implications for Hazard Assessment and Prevention Planning.

**Hugo Romero**
The increasing number and extension of heat islands, heat waves, hotspots and air pollution in Latin American cities.

**Krzysztof Gaidzik & Ma. Teresa Ramirez-Herrera**
Geomorphic indices and relative tectonic uplift in the Guerrero sector of the Mexican forearc.

**Moisés Contreras & Leonardo Ramirez-Guzman**
Seismic Intensity Maps for Mexico City and some applications for emergency

**PANEL 10: RESPONSE, MEDIA AND HUMANISTIC OUTLOOK**

**Moderated by Prof. Fernando Gutierrez**

**Roland Tolentino**
Representations of Post-Disaster Response and Recovery: Disasters in Philippine Cinema.

**Mireya Pacheco**
Literature review of humanitarian logistics research. Trends and challenges in preparedness area.

**Gavin White**
Community resilience or disaster risk reduction? The experience of the Red Cross Movement in managing conflicting expectations.

**Xin Gao**
Impacts of Dark Tourism Following Sichuan Earthquake in China.

**Armin Gomez-Barrios**
Storytelling and restoration of cultural heritage.

**David Ortiz Haro (REMOTE)**
The importance of integral studies of collective and collaborative citizen behaviors for facing catastrophes.
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Yo soy Protección Civil
Ana Lucía Hill

Miyamoto International
International Federation of Red Cross and Red Crescent Societies

CENAPRED

THANK YOU.

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MORE INFORMATION

APRU Website
www.apru.org

Tecnológico de Monterrey - Multi-Hazards 2019 Website
www.sitios.itesm.mx/vi/APRU

Hand Program:

Extended Program:
drive.google.com/file/d/1duG0rLXDxc-WIIgewT2jn7wVsVA2mHKM/view?usp=sharing

Facebook:
www.facebook.com/aprumh19/

Google drive of pictures:
drive.google.com/open?id=1e-tjXbwyzjo-ol_oKfhMDYtEGAHGr8yd

MEDIA COVERAGE

Press Release on CONECTA

Content on Social Networks + Social Networks
Coordination with Leaders, Schols and APRU:
https://www.facebook.com/aprumh19/
NEWS RELEASE

Tecnológico de Monterrey hosts the 15th Multi-Hazards Symposium of the Association of Pacific Rim Universities (APRU)

The 15th Multi-Hazards Symposium 2019 Building Resilience Through Disaster Risk Reduction, Response, Recovery & Reconstruction in the 2030 Agenda was organized by the Vice Rectory of International Affairs of Tecnológico de Monterrey university in Mexico City.
- The international event took place in Mexico City from 29th to 31st of October 2019.
- Representatives from United Nations, universities, and the International Federation of Red Cross and Red Crescent Societies.

Mexico City, Mexico, November 2019.- The 15th Multi-Hazards Symposium of APRU 2019 organized by Tecnológico de Monterrey university in Mexico City, focused their activities on analyzing how disaster risk reduction (DRR) strategies can contribute to the better sustainable development of the society. Experts and academics gather at the National Institute of Genomic Medicine to exchanged advances in research, technology, and applications in disaster risk reduction.

David Garza-Salazar, Rector of Tecnológico de Monterrey, José Manuel Páez-Borralgo, Vice Rector of International Affairs; and Christina Schönleber, Policy & Programs Director of APRU, received representatives of universities, companies, and government agencies and non-governmental organizations from 23 countries.

The Symposium explored the role of the universities in the fulfillment of the Sendai Framework for Disaster Risk Reduction 2015-2030 objectives, which is “a 15-year, voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risk” (United Nations), and also the Agenda of Sustainable Development 2030.

The Asia Pacific Disaster Report 2015 – ‘Disasters without borders regional resilience for sustainable development’ mentions that 40% of the world’s natural disasters and 90% of the world’s earthquakes happen in the Asia Pacific region, therefore the importance of detecting risks, improving the coordination and exchanging knowledge to reduce the impact of disasters and recover satisfactorily.

Natural disasters cannot be avoided, but they can be managed with resilience, the development of new technologies, research and with the collaborative efforts of nations and institutions.

Mami Mizutori, Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction and Head of the United Nations Office for Disaster Risk Reduction encouraged universities to participate in prevention programs in their communities. David Garza, Rector of Tecnológico de Monterrey shared the challenges faced during the September of 2017 earthquake in Mexico City and the resilience that the community has shown.

The keynote speakers were Walter Cotte Witingan, of the International Federation of Red Cross and Red Crescent Societies; Kit Miyamoto, CEO and President of Miyamoto International; Rajib Shaw from Keio University, Osamu Murao and Takako Izumi, both from Tohoku University.

The 15th edition of the symposium had the participation of 18 universities from 8 countries: the Kabul University, University of Chile, National University of Singapore, Tohoku University, Osaka University, The University of Auckland, Tokyo Metropolitan University, Waseda University, Massey University of New Zealand, University of Washington, University of the Philippines Dilmam, Keio University; from Mexico were the University of South Sierra, El Colegio de México (COLMEX), Autonomous University of Guerrero, University of Guadalajara, the National Autonomous University of Mexico (UNAM), and Tecnológico de Monterrey.

The Association of Pacific Rim Universities (APRU) was established in 1997 as the voice of the knowledge and innovation for Pacific-Asia. As a university network, Tec de Monterrey collaborates in solutions for the challenges of the XXI century, specifically in the group of Risk Reduction.
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