



TIEMS 25th Anniversary and 2018 Annual Conference Report

TIEMS 25th Anniversary and 2018 Annual Conference took place at the University of Santo Tomas (UST) in Manila in the Philippines, as a join conference with the third USTCN Conference on Disaster Risk Reduction and Climate Change, the 13th - 16th November 2018.

The conference concept was as follows:

TIEMS 25th ANNIVERSARY & 2018 ANNUAL CONFERENCE CONCEPT PROGRAM

Monday 12 th November	Tuesday 13 th November	Wednesday 14 th November	Thursday 15 th November	Friday 16 th November	
Arrival of Delegates Reception and Poster Session and Registration Get Together Networking	Pre- Conference	Registration	Registration	Registration	
	3 rd USTCN Conference on DRR and Climate Change Program	Welcome & Introduction of the Workshops	Welcome & Opening	Technical Session	
		Workshop 1 DRR Communication Platform TIEMS Korea Chapter	Plenary Sessions 1 Keynote Speakers		
		Coffee Break with visit to Posters & Exhibition			
		Workshop 2 Simulation in DRR The Hiraia Company	Technical Session	Plenary Session 2 Keynote Speakers	
			TIEMS Annual General Meeting	Summary & Conclusions	
		Lunch with visit to Posters & Exhibition			Bus Tour with Box Lunch
		Workshop 3 TIEMS TQC Certification TIEMS	Technical Session	Visit to Office of Civil Defense- National Disaster Risk Reduction Management Council (OCD-NDRRMC) Emergency Operations Center & Earthquake Center	
		Coffee Break with visit to Posters & Exhibition			
		Workshop 4 Industry Presentations Exhibiting Companies	Technical Session		
Welcome Reception	Gala Dinner				

The conference were attended by around 100 experts from 12 countries, Australia, Canada, China, Croatia, Czech Republic, India, Italy, Norway, Philippines, South Africa, South Korea and USA. During the USTCN conference day, also about 500 students from UST attended.

The conference was noticed on the highest political level in the Philippines, by a warm welcome from the President of the Philippines.



MALACANAN PALACE
MANILA

MESSAGE

My warmest greetings to The International Emergency Management Society as it holds its 25th Annual Conference on Disaster Risk Reduction and Climate Change Mitigation.

In recent years, our nation has witnessed and experienced some of the worst calamities recorded in history, testing our people's unity in times of tragedy and proving our ability to smile in the face of adversity.

With a wide scope of professionals and industry leaders in attendance, this gathering is a vital opportunity to learn about the latest technical and operational methodologies in global emergency and disaster management. May today's activities further accelerate the progress of your sector and improve society's competence to respond to and recover from natural and man-made disasters.

I look forward to the solutions and innovations this conference will bring as we collectively address climate change and engender a culture of safety, preparedness and resilience in our communities.

I wish you all a successful and productive event.

RODRIGO ROA DUTERTE

MANILA
14 November 2018

THE PRESIDENT OF THE PHILIPPINES



USTCN Conference Day Final Program

<p><i>Invocation, National Anthem & Welcome Remarks</i> Rev. Fr. Julius Paul C. Factora, RN, OP, JCD <i>Regent, UST College of Nursing</i></p>
<p><i>“Climate Change Mitigation”</i> Honorable Secretary Manny De Guzman <i>Secretary, Climate Change Commission</i></p>
<p><i>“DRR & Climate Change”</i> Usec/Dr. Philip Francisco U. Dy <i>Chief of Staff, Office of the Philippine Vice President</i></p>
<p>The First Panel Discussion</p> <p><i>“Philippines Public Safety”</i> Ret. General/Dr. Ricardo De Leon <i>President, Philippine Public Safety College</i> <i>“New Disaster Management Paradigm”</i> Dr. Francisco A. Magno <i>Director, Jesse M. Robredo Institute of Local Governance, De La Salle University</i> <i>“Leadership in Disaster Management”</i> Professor/Dr. Ralph Brower <i>Florida State University</i></p> <p>Questions & Answers</p>
<p>The Second Panel of Discussion</p> <p><i>“The Philippines’ Current Strategies in Disaster Risk Reduction & Climate Change”</i> Honorable Undersecretary/ Dr. Renato Solidum Jr. <i>Usec, Disaster Risk Reduction and Climate Change Adaptation - DOST</i> <i>“Civil Protection During Disasters”</i> Director Susana Juangco, MPH, RN <i>Capacity Building and Training Service, Office of Civil Defense - NDRRMC</i> <i>“Mutual Assistance Agreement & Healthcare Continuity Reserve Corps (HCRC)”</i> Dr. Jaime Almora, <i>Founder of Almora General Hospital, BOD, PHA</i> Co-Presenter: Angeli Medina MPA, RN, CHPCP, CBCP, CEN</p> <p>Questions & Answers</p>



The Third Panel Discussion

“Zero Casualty, DRR and Climate Change”

Cedric D. Daep Ph.D.

Department Head, Albay Public Safety & Emergency Management Office/ Executive Director, Climate Change & Disaster Risk and Management Training Institute

“Status of SMD Hospital & Rebuilding Efforts in Malawi City”

Dr. Saffrullah M. Dipatuan

Medical Director, SMD General Hospital, Marawi City & Tindig Marawi Foundation Representative

Ms. Mayfourth Luneta, Deputy Director

Center for Disaster Preparedness

Questions & Answers

UST Choir/ Break

The Fourth Panel of Discussions

“Introduction of TIEMS Annual Conference”

K. Harald Drager

TIEMS President

“Emergency Preparedness & Response for Catastrophe”

Dr. Guosheng Qu

TIEMS Vice President

“Preserving Cultural Heritage as Climate Changes”

Dr. Thomas V. Robertson

TIEMS Regional Director for North America

Questions & Answers

Closing Remarks

Dean Susan N. Maravilla, DNM, RN,

Dean College, USTCN

UST Hymn

The USTCN conference day, gave the participants a good insight into the potential disaster situation for the Philippines, which are the third highest country in the world concerning disaster risk, and how the Philippines government and authorities have established disaster resilience means how to handle and recover from potential disasters.



Undersecretary Francisco U. Dy is thanked after his Keynote Opening Speech

The afternoon speakers from TIEMS have an introduction to TIEMS activities and an overview of the following TIEMS conference days, with 4 workshops and 50 presentations on different topics with disaster resilience.



An audience of 600 attended the USTCN conference day on Disaster Risk Reduction and Climate Change

TIEMS Workshop Day

The final program for TIEMS Workshop day comprised the following TIEMS Workshops:

1. Workshop 1: The Disaster Risk Reduction Communication Platform
2. Workshop 2: The Hiraizumi Best Companies Disaster Simulation Tools
3. Workshop 3: The TIEMS TQC Certification
4. Workshop 3: Disaster Resilience Industry Presentations



TIEMS Directors meeting and preparing the Workshop Day

Workshop 1. The Disaster Risk Reduction Communication Platform

Workshop 1 on Disaster Risk Reduction (DRR) Communication Platform focused on good practices on community resilience initiated by local governments. The workshop featured five different case studies from the Philippines, China, India and Republic of Korea on the following topics:

- Empowering Communities Towards a Resilient Makati
- CERT and local community resilience in China: Case from Chengdu and Shaanxi
- TIEMS - India Chapter disaster management partnership with world's largest free
- Jaipur Literature Festival
- Pasig Marikina Channel Improvement Project
- DRR Education: Songpa Disaster Safety Experience Center in Korea

These presentations were followed by a quick introduction and demonstration of the DRR platform.



Empowering Communities towards a Resilient Makati present by the Makati City representative



About the DRR Technology Platform

Aligned with various global agenda on resilience, the Government of Korea (Ministry of Interior and Safety) along with its research team has established a web-based platform for collecting dispersed data and technology on climate change adaptation (CCA) and disaster risk reduction (DRR). It contains various case studies illustrating problem-solving, project development, and technology products. The website aims to offer an easily accessible Q&A and discussion board for DRR experts to engage in a thorough dialogue regardless of time and space both during emergencies and at normal times. The site can be explored on the link below:

<http://www.pr4gdm.org>

Workshop 2: The HiraIn Best Companies Disaster Simulation Tools

The HiraIn Best Company gave a presentation of their simulation tools for disaster resilience as follows.



Elaine Yang presenting the simulation tools solutions of the HiraIn Best





EMERGENCY CULTURE SEGMENT

HIRAIN-BEST

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

THE LEADER OF
CULTURAL SPREAD ON
EMERGENCY SAFETY
AND SMART DISASTER RISK
REDUCTION



The Promoter of
Emergency Culture



The Advocate of
Disaster Preparation
in Life



The Implementer of
Smart Disaster Risk
Reduction



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

HIRAIN-BEST INTRODUCTION



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



HIRAIN-BEST INTRODUCTION

HIRAIN-BEST Emergency Science&Technology Co., Ltd is the key component of HiraIn's emergency culture, we are dedicated to



Improving the safety awareness and the coping ability of the public against disasters



Promoting the rapid growth of the emergency industry



Providing knowledge, materials, technical supports and professional services for the safety and stability of the society

Integrating high-tech experience methods into emergency and disaster risk reduction, and spreading it to the world.



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd





01

THE PROMOTION OF EMERGENCY CULTURE

- 1.1 The Exhibitions & Workshops of Emergency Industry
- 1.2 The All-purpose Service Platform of Emergency Culture
- 1.3 The Education & Training of Disaster Response

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

1.1 THE EXHIBITIONS & WORKSHOPS OF EMERGENCY INDUSTRY

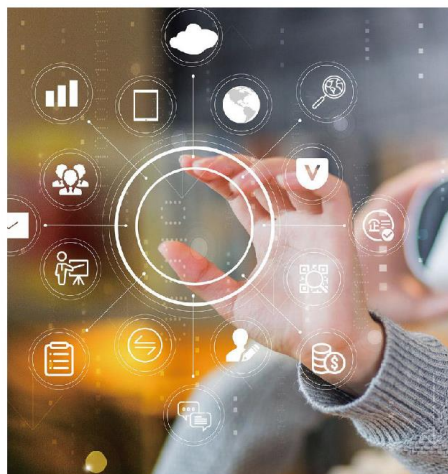
HIRAIN-BEST has been leading the communication and strategic development of the emergency industry by hosting emergency exhibitions and workshops with the cooperation of domestic and overseas authorities and institutes.



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

1.2 THE ALL-PURPOSE SERVICE PLATFORM OF EMERGENCY CULTURE

Relying on the expertise in the emergency industry, and by integrating the professional data and knowledge throughout the industry, HIRAIN-BEST has built a diversified and multi-channel service platform of emergency culture with the functions of interactive science popularization, professional online communication, professional courses sharing, emergency and safety products sales service.



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



1.3 THE EDUCATION & TRAINING OF DISASTER RESPONSE

We stick to professional emergency knowledge and teaching resources of all disaster species, and combine leading virtual reality technologies with teaching and learning process to visualize the emergency knowledge, and to create an immersive interactive virtual learning environment of high simulation.



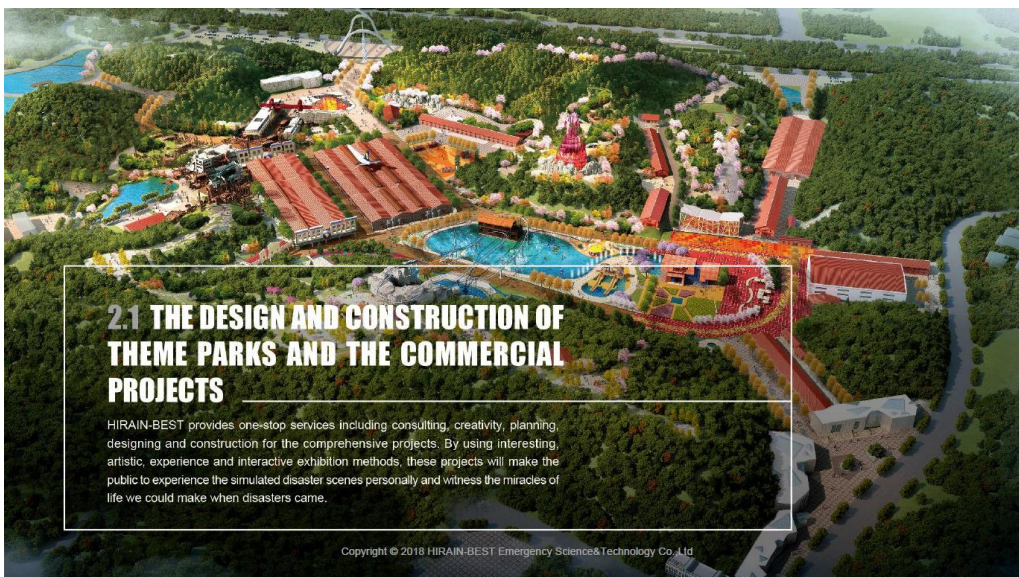
Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

02

THE INTERACTIVE EXPERIENCE OF EMERGENCY & SAFETY

- 2.1 The Design & Construction of Theme Parks and Commercial Projects
- 2.2 The Development and Production of Themed Products
- 2.3 The Development of Customized Projects of Emergency & Safety

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



2.1 THE DESIGN AND CONSTRUCTION OF THEME PARKS AND THE COMMERCIAL PROJECTS

HIRAIN-BEST provides one-stop services including consulting, creativity, planning, designing and construction for the comprehensive projects. By using interesting, artistic, experience and interactive exhibition methods, these projects will make the public to experience the simulated disaster scenes personally and witness the miracles of life we could make when disasters came.

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



2.2 THE DEVELOPMENT AND PRODUCTION OF THEMED PRODUCTS

HIRAIN-BEST presents the customized single and combined theme products and services, by focusing on international view and disaster reduction theme experience of all disaster species, to create a comprehensive and diverse disaster scene solutions.

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



2.3 THE DEVELOPMENT OF CUSTOMIZED PROJECTS OF EMERGENCY & SAFETY

According to different demands, we provide development solutions of customized experience projects for different clients.

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

03

THE OPERATION OF EMERGENCY THEMED PROJECT

- 3.1 The Operation of Emergency Themed Project
- 3.2 The Training of Professional Operation Team

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

3.1 THE OPERATION OF EMERGENCY THEMED PROJECT

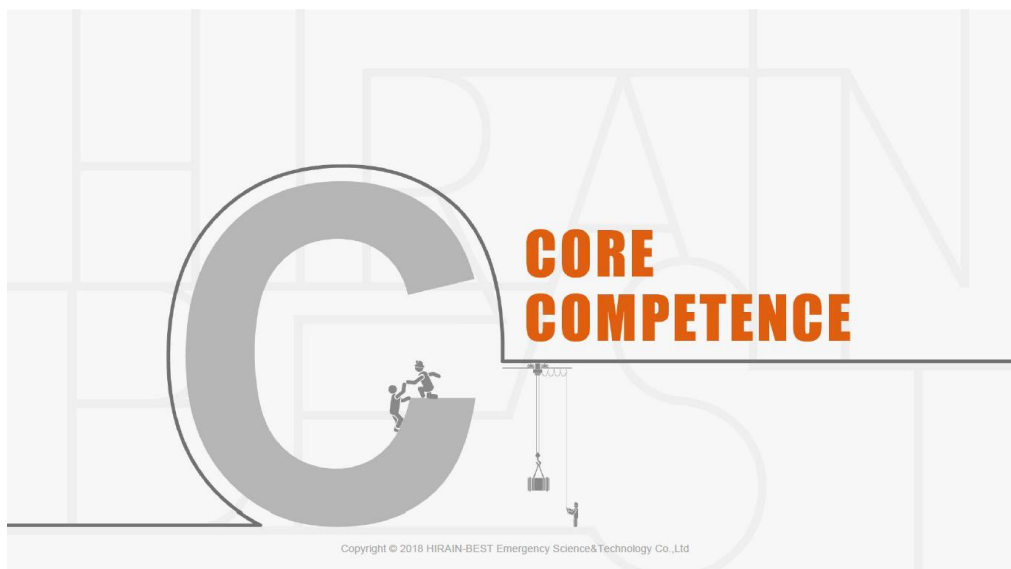
Depending on the 20 years experience in the operation and management of 5A scenic spot, HIRAIN-BEST was the first company to integrate innovative digital operation idea and developed personnel training system into digital disaster reduction projects. We provide entrusted management service to achieve the prosperous development.



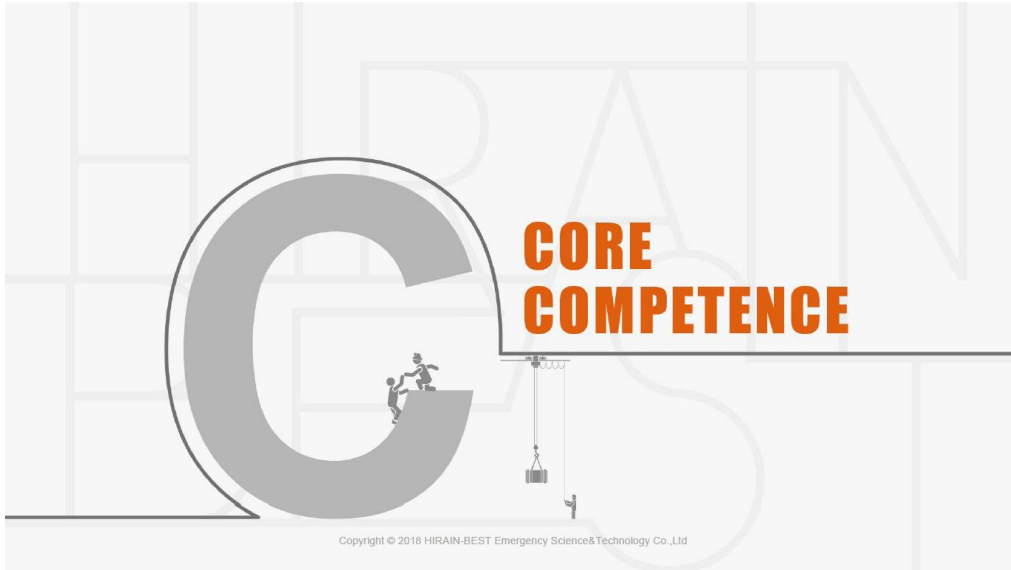
Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

3.2 THE TRAINING OF PROFESSIONAL OPERATION TEAM

We provide operation menus to guide our clients to build an operation team independently, and provide effective orientation service.



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd





AUTHORITIES



POWERFUL CROSS-COUNTRY TEAM OF INNOVATION TAKING THE ADVANTAGE OF BEING INDUSTRIAL LEADER

HIRAIN-BEST gathered the experts and talents specialized in creative design, science and technology development, project implementation and operation management from China and abroad, and built an elite team with rich experience. Our South Korean creative team has accomplished multiple creative space designs in the field of construction, interior, exhibition, multimedia interaction, VI. The team has successfully captured numerous international design prizes, and has reached some remarkable achievements.



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



THE RESEARCH&DEVELOPMENT OF EXPERIENCE PRODUCTS

The experience products of HIRAIN-BEST has three features:
independent research&development, local originality, digital pioneer.

10 completed overseas projects, 4 films of safety education, 100+ partners in China and abroad



55
national
patents



48
software
copyrights



48
film
copyrights



Copyright © 2016 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

THE RESEARCH&DEVELOPMENT OF EXPERIENCE PRODUCTS

INDEPENDENT RESEARCH&DEVELOPMENT

Continuous Development of High-tech Cultural and Tourism Products

Awarded with over 20 prizes from state ministries and commissions, local research centers, and the industry. Possessing 9 patents for invention, 18 patents in utility model, 2 patents in design.

Experience Project of Disaster Scene with Strong Immersion

Providing disaster scene solutions according to the demands and environment. Integrating the company owned high-tech interactive products into the disaster experience projects to bring an immersive experience to the audience.

Shanghai "Cultural Integration and Innovation Demonstration Project" Funding Project
The development and adoption of 360° immersive panoramic cinema system with special effect.

Technology Supporting Plan and Funding Project of China 12th Five-Year Plan Has Captured Shanghai Invention Golden Prize
The development and adoption of dome theater system.



Copyright © 2016 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

THE RESEARCH&DEVELOPMENT OF EXPERIENCE PRODUCTS

LOCAL ORIGINALITY

The top-class ability of culture productivity, 55 copyrights for special films

Being the first non-cultural company to obtain the film production license issued by the General Administration of Radio and Television in China.

Professional Special Effect Disaster Movie Customization

Making special disaster films and televisions basing on customer's demands, and the films were used in the popularization of disaster risk reduction. The movies filmed were widely adopted by the enterprises and institutions, such as National Earthquake Emergency Rescue Training Base.



Copyright © 2016 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



THE RESEARCH&DEVELOPMENT
OF EXPERIENCE PRODUCTS

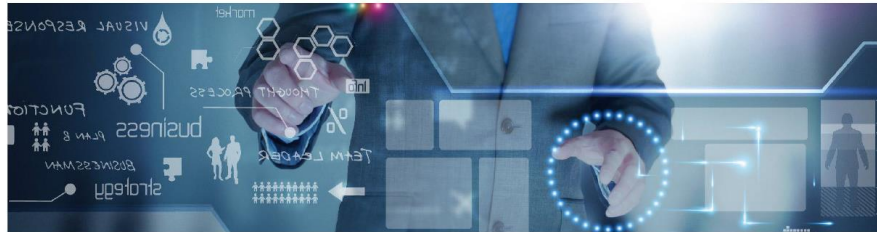
DIGITAL PIONEER

□ Taking the lead in VR/AR Smart Disaster Risk Reduction layout
Using Big Data to Create Better AI Interactive Experience

12 technologies with the Computer Software Copyright Registration
Certificate, 36 Computer Software Copyrights.

□ Scientific and Intelligent
Disaster Interactive Experience

With the professional data, the multimedia products from HIRAIN-BEST are
based on high techs like the computer graphics, VR, AI and automatic
control. We developed a series of multimedia products with new type of
interactive methods, which allow the audience to get the closest to the real
disaster scene and to interact with computers. In this way, it scientizes and
intelligizes emergency and disaster experience .



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

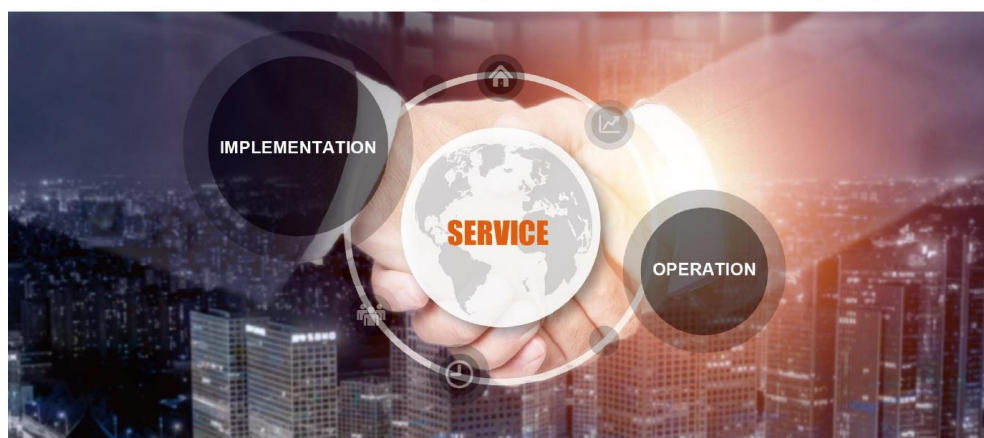
THE RESEARCH&DEVELOPMENT OF TRAINING SYSTEM

We originated an operation personnels' training system of smart
disaster themed projects, and provided talents for the sustainable
development of the project.

Based on years of operation and management experience of HiraIn Group
in theme cultural and tourism projects and safety experience projects,
HIRAIN-BEST conducts multidimensional delivery training and sustainable
operation services like the system maintenance of the experience projects and
the upgrades of personnel training.



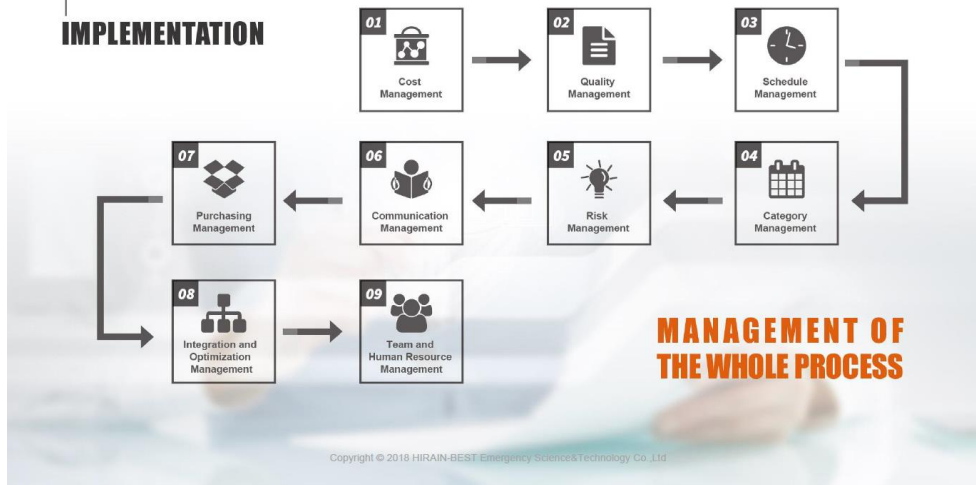
Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



IMPLEMENTATION



OPERATION MODE



OPERATION ADVANTAGE





Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

CHIBI INTERNATIONAL DISASTER EXPERIENCE TOWN

Combining disaster training with safety education, combining corporate culture with drill and performance, combining technology spread with conferences and exhibitions to build an emergency and disaster complex that has great international influence.



Area:
554,000m²



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

CHONBUK 119 SAFETY EXPERIENCE MUSEUM (INDOOR AREA)

The biggest comprehensive experience museum in South Korea, and the only space for new concept education and culture that integrates experience into "Children's Safety Village". It's made up of 4 main museums and outdoor facilities which fit from children to adults, and **experience all the stages of a disaster safety skill training by telling stories.**



Area:
98,154m²

Exhibition Area:
5,000m²

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd



CHONBUK 119 SAFETY EXPERIENCE MUSEUM (OUTDOOR AREA)

The biggest comprehensive experience museum in South Korea, and the only space for new concept education and culture that integrates experience into "Children's Safety Village". It's made up of 4 main museums and outdoor facilities which fit from children to adults, and experience all the stages of a disaster safety skill training by telling stories.



Area: 98,154m² Exhibition Area: 5,000m²



CENTRAL CIRCLE'S SAFETY EXPERIENCE MUSEUM

The earliest local safety experience museum in South Korea that allows the nation to get rid of the mode of single safety experience.

The disaster scene is consist of traffic safety, life safety and emergency solutions in our daily life.



Area: 3,895m²

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

ULSAN PRODUCTION SAFETY EXPERIENCE MUSEUM

Ulsan Production Safety Experience Museum reflects the importance of industrial safety and disaster prevention in recent years.

Industrial safety has been drawing more and more attention in the society. By the training at the simulative production scene, visitors can experience the real situation of the disasters and learn how to cope with the fatal accidents.



Area: 622m²



Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

BUSAN FIRE SAFETY MUSEUM

A safety education space that taking safety as the theme. It combine education with interest.

The museum with 7 themes and 23 experience facilities is equipped with experience facilities of typhoon, earthquake and nuclear power plants, which is designed according to the geographical features of Busan city. The museum is also listed as the first electricity experience museum.



Area:
3,600m²

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd

CHILDREN'S MUSEUM OF TRANSPORTATION SAFETY & EMERGENCY

Add comic character into children experience museum.

Adopting interesting methods to simulate real life situations in children's perspective, and cultivate the traffic safety awareness of the children.



Area:
683m²

Copyright © 2018 HIRAIN-BEST Emergency Science&Technology Co.,Ltd





Workshop 3: The TIEMS TQC Certification

TIEMS TQC Certification

With an increasing number of disasters worldwide, resulting in more international collaboration and support to disaster stricken areas, the need for more education and training in emergency and disaster management seems evident. TIEMS believes that it is important to raise the awareness of the competencies needed in emergency and disaster management, and to support those participating in these activities and operations in acquiring those competencies in an international setting

An international certification has been launched by TIEMS, called Certification of Qualifications in International Emergency and Disaster Management (QIEDM), or TIEMS QIEDM Certification or just TQC

The full name of the TQC certification is:

TIEMS TQC International Certification - Operations and Good Practise

Benefits of Certification

You may be asking yourself what the benefits of being certified are. One of the primary reasons for becoming certified is to be Standard and/or Best Practices compliant. By being certified, you show that you are knowledgeable in the four core components of emergency management: preparedness, response, recovery and mitigation. The certification is recognized case by case, either across the country or internationally. TIEMS TQC aims to be internationally recognized. Another reason is to be professionally recognized by other professional emergency managers. By being certified, you are more marketable in looking for another position, whether it is for a promotion or another position outside of the law enforcement profession. Many positions for managers in emergency management are seeking a certification as a prerequisite to employment.

With that in mind, TIEMS is working to fill the gap of an Internationally Recognized Certification Body, awarding an assessment-based certification based on the evaluation of Compliance Assessment Results and Test Examination Results provided by two distinct



Sections of the TIEMS Certification Body. To implement this idea, TIEMS has a short term and a long term goal. In the short term TIEMS will address the definition of a TIEMS Certification Scheme and Requirements Internationally Recognized and endorsed by different institutions worldwide; in the long term TIEMS will address TIEMS Certification Body Accreditation.

TIEMS TQC Certification will not address all aspects of Emergency Management for all countries and do not intend to compete with what is already fixed by the local Legislation and Governmental Authorities in different countries. Instead, TQC will be a TIEMS “product” reflecting international standards and best practices that apply to all countries. TIEMS International Certification can be in addition to National Certification, and should not be consider being in competition to any existing certification schemes in Emergency Management and Disaster Response.

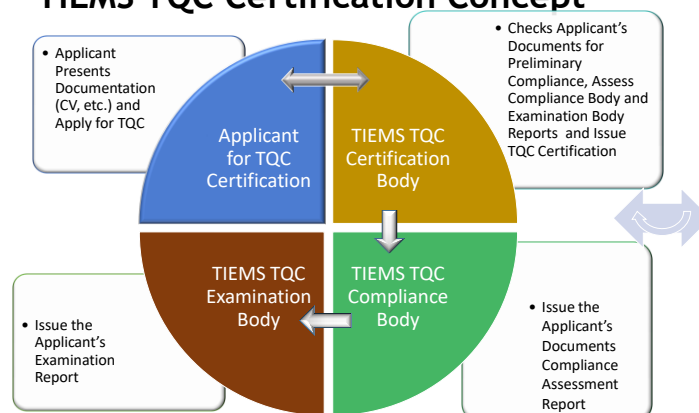
TIEMS TQC Certification is a voluntary process by which individuals are evaluated against predetermined standards for knowledge, skills, or competencies, as well as test exam results. Participants who demonstrate they meet the certification requirements by successfully completing the assessment process are granted a time-limited credential. To retain the credential, the certified applicants must maintain continued competence and periodically re-evaluated.

TIEMS TQC Certification is reserved for individuals who have demonstrated their knowledge and experience in the risk management / emergency management / disaster response as certified by the TIEMS Certification Body, based first on the results evaluation of TQC Compliance, and after on the results evaluation of TQC Examination, with reference to International Standards and Best Practices. Prerequisite to apply for TQC Certification is to possess at least five years of significant, practical, community wide experience in risk management / emergency management / disaster response.

TIEMS TQC Certification is the highest level and the most globally respected certification that can be obtained by experts in the field and by academia. It is foreseen only have 1 level of certification, based on ISO standard. Too many other organization have multiple levels of certification where the entry level certification really only requires a person to pass and exam.



TIEMS TQC Certification Concept

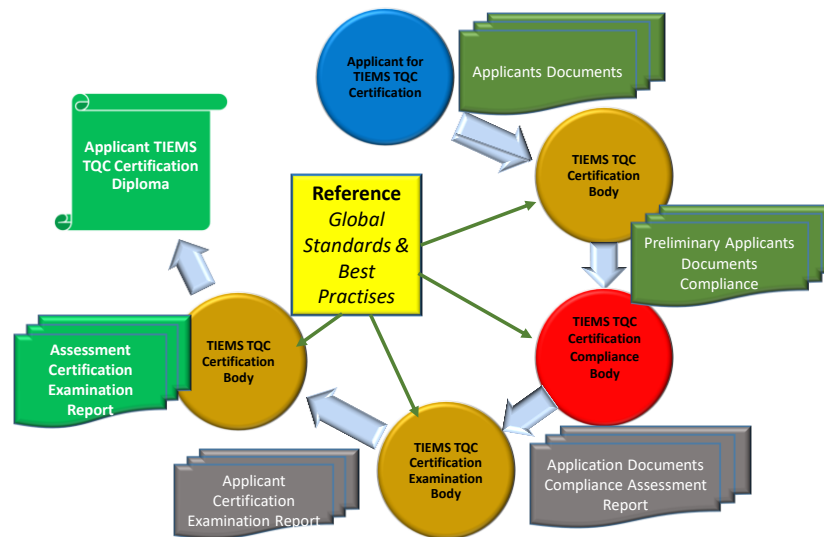


17

Figure 1. TIEMS TQC International EM Certification Concept and Basic Steps



TIEMS TQC Certification Document Flow



18

Figure 2. TIEMS TQC International EM Certification Documentation Flow

Players in the TIEMS TQC International Certification

TIEMS TQC Certification Body: composed of TIEMS Emergency Management Experts, is the only one with legal responsibilities and entitled awarding for an assessment-based certification.

TIEMS TQC Compliance Body: is the organization, composed of TIEMS Emergency Management Experts, providing auditing and certification services, based on a demonstration that TIEMS **specified requirements** relating to TIEMS Qualification Certification (TQC) are satisfied by the Applicant Documents. Compliance Certification represents a written assurance by a third party of the conformity of all documentation provided by the Applicant.

TIEMS TQC Examination Body: is the organization, composed of TIEMS Emergency Management Experts, doing oral examination of the Applicant. The emphasis of the TIEMS TQC Examination Body is to establish the technical competence of the Applicant.

Applicant Documents: Applicant Documents is a generic term for any document that explains the competences and education of the Applicant. An Applicant CV is essential. Information should be accurate and complete. Text should be clear and concise. The information should be organized in a hierarchical and consistent manner by use of headings. Step numbering should be used to support the structuring into levels of information. Illustrations (photo, drawings, and graphs) should be used to support information text.

Applicant Documents Compliance Assessment Report: This is how the TIEMS TQC Compliance Body certify the conformity of the Applicant Documents with TIEMS TQC Requirements. TIEMS TQC Compliance Body shall ensure that the Applicant Documents comply with TIEMS TQC Requirements. A possible Template for the Compliance Assessment Report would help to make uniform the documentation produced.



Applicant Certification Examination Report: Examination Report is released by the TIEMS TQC Examination Body reporting the examination results. The prime objective of this document is to explain various details about the examination performed and the methods used. A possible Template for the Examination Report would help to make uniform the documentation produced.

Certification Assessment Report: This is a Document issued by TIEMS TQC Certification Body based on the compliance and examination results of the Applicant. Based on its content the Applicant will be eventually awarded with TIEMS TQC Certification. TIEMS guideline for Applicant certification schemes would be necessary. A possible Template for the Examination Assessment Report would help to make uniform the documentation produced.

Reference Standards & Best Practices: Any international recognized standard and Best Practice against which the TIEMS Certification Body, TIEMS TQC Compliance Body and TIEMS TQC Examination Body do their evaluation of the Applicant.

TIEMS TQC Certification Reference Standard & Best Practices

Any international recognized standard and best practice within Emergency and Risk Management, related to all phases of the Emergency Management and Risk Management Cycles, against which the TIEMS Certification Body do their Evaluation of the Applicant



TIEMS has started a Survey of the existing National and International Standards, Best Practices, Guidelines, etc. about Emergency and Risk Management in the different Countries, where they exist



40

ISO 31000:2018 Risk Management Guidelines

<https://www.iso.org/obp/ui/#iso:std:iso:31000:ed-2:v1:en>

This document is for use by people who create and protect value in organizations by managing risks, making decisions, setting and achieving objectives and improving performance.

Organizations of all types and sizes face external and internal factors and influences that make it uncertain whether they will achieve their objectives.

Managing risk is iterative and assists organizations in setting strategy, achieving objectives and making informed decisions.

Managing risk is part of governance and leadership, and is fundamental to how the organization is managed at all levels. It contributes to the improvement of management systems.



Managing risk is part of all activities associated with an organization and includes interaction with stakeholders.

Managing risk considers the external and internal context of the organization, including human behavior and cultural factors.

Managing risk is based on the principles, framework and process outlined in this document. These components might already exist in full or in part within the organization, however, they might need to be adapted or improved so that managing risk is efficient, effective and consistent.

ISO 22320:2011 Societal security – Emergency management – Requirements for incident response

<https://www.iso.org/obp/ui/#iso:std:iso:22320:ed-1:v1:en>

This International Standard enables public and private incident response organizations to improve their capabilities in handling all types of emergencies (for example, crisis, disruptions and disasters). The multiple functions of incident response are shared between organizations and agencies, with the private sector and the government having different levels of responsibility. Thus, there is a need to guide all involved parties in how to prepare and implement effective incident responses. This International Standard will, based on minimum requirements, enable organizations involved to operate with joint optimum efficiency.

Effective incident response needs structured command and control, and coordination and cooperation, in order to establish coordination and cooperation, carry out command processes and facilitate information flow amongst the involved organizations, agencies and other parties. Cross-organization, -region or -border assistance during incident response is expected to be appropriate to the needs of the affected population, and also to be culturally acceptable. Therefore, community participation in the development and implementation of incident response measures is essential. Involved organizations require the ability to share a common approach across geographical and organizational boundaries.

Information requirements, as well as requirements pertaining to the information management process and structure, may enable industry to develop technical solutions, which will provide maximal interoperability according to information and communication exchange needs during incident response. This International Standard can be used alone or together with the other standards developed by ISO/TC 223.

AVAILABLE CERTIFICATION SCHEMES

There are several different certifications programs available for emergency managers currently in existence, among others, the most popular:

- The FEMA Professional Development Series (PDS) Certificate¹,
- The FEMA Advanced Professional Series (APS) Certificate²,

¹ <https://training.fema.gov/is/searchis.aspx?search=pds>

² <https://training.fema.gov/programs/aps/>



- The International Association of Emergency Managers (IAEM) Certified Emergency Manager® (CEM®)^{3,4},
- The Associate Emergency Manager (AEM)⁵ Certificates,
- The Homeland Security Certifications⁶, The International Association for Disaster Preparedness and Response (DERA)⁷.

PROPOSED CERTIFICATION SCHEME BY TIEMS TQC

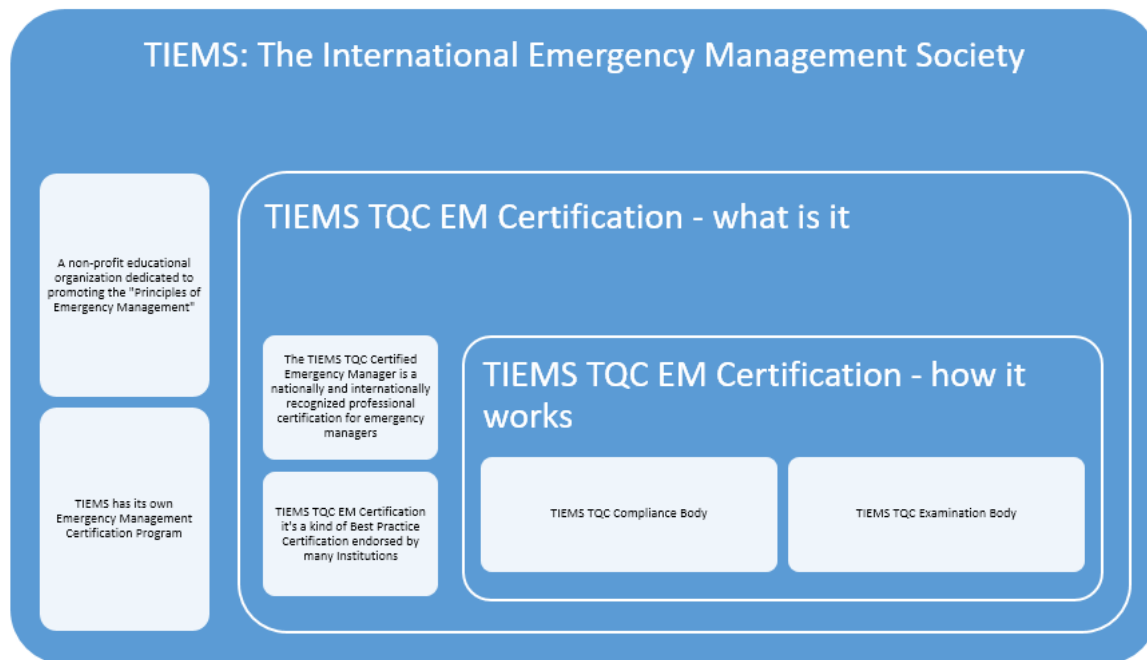


Figure 3. TIEMS TQC International EM Certification Scheme

What is a TIEMS TQC International Certification?

A TIEMS TQC International Certification exceeds all national and international requirements and certifies the capacity of Emergency Managers (EM) to handle emergency situations appropriately, following International ISO Standards, and provide best possible responses. Establish criteria for certification of individuals with the TIEMS Qualifications in International Emergency and Disaster Management (QI EDM) certification, in short TIEMS TQC.

Refer to previous Sections for **TIEMS TQC Certification Concept** and for **TIEMS TQC Certification Documents Flow**

TIEMS TQC Certification Objectives

- Availability Globally

³ <http://www.iaem.com/page.cfm?p=certification/intro>

⁴ <http://www.iaem.com/>

⁵ <http://www.iaem.com/page.cfm?p=certification/intro>

⁶ <https://www.globalhomeland.org/certification-programs/>

⁷ <https://www.emergency-management-degree.org/faq/what-is-the-international-association-for-disaster-preparedness-and-response/>



- Web-based On-Line
- Low Cost
- A Common Understanding of Emergency and Disaster Management
- The Common Language is English, but local language adaption in TIEMS Chapter Countries
- State-of-the-Art and Up-to-Date

Why get a TIEMS TQC Certification

An independent and objective evaluation through third-party certification like TQC offers validation that a professional EM is in compliance with the preparedness requirements of one or more of the TQC Program's foundation standards and/or best practices. Certification endorses an EM and makes regular audits of preparedness a priority. This process develops disaster awareness within and outside an organization, thereby fostering a heightened sense of security and distinguishing one from competitors.

TIEMS TQC Curricula needed for EM certification

The TQC Curricula is to be developed through cooperation with worldwide recognized universities and training institutions through **TIEMS International Education Network of Excellence (TIENE)**. TQC Curricula are structured to meet the needs of diverse organizations with an emphasis on separate organizations working together in all-hazards emergencies to save lives and protect property. Nowadays, there are various types of courses available to prepare for EM certification, delivered through associations recognized at different level worldwide. It is also possible to complete emergency training courses through community colleges. Whichever qualification will be earned by the Applicant, it will ensure that he/she have skills in Emergency Management and will be part of TQC Curricula.

TIEMS TQC online eLearning and Certification Platform

It is an online resource that stores all info of the Applicant TQC certification and recertification information in one place for easy viewing and retrieval. The site automatically keeps training records for the TIENE courses that the Applicant have taken, and also allows to the Applicant to upload the records and certificates from other training sources.

TIEMS International Education Network of Excellence (TIENE)

As technology and services evolve, there is a growing need for highly trained professionals with the skills and confidence to keep a level head under pressure. Through its courses and integrated programs, TIENE serves as the international focal point for the development and delivery of emergency management training to enhance the capabilities of State, local, and government officials; volunteer organizations; and the public and private sectors to minimize the impact of disasters and emergencies on the public. TIENE serves the international emergency management community, offering courses to help build critical skills that emergency managers need to function effectively in mass consequence events.

The first member of TIEMS International Education Network of Excellence (TIENE) is University of Technology in Minna Nigeria, and the Memorandum of Understanding between Minna University and TIEMS was signed during the Workshop. TIEMS President marked this as the first important step to develop the TIENE network.



The MOU being signed by TIEMS President K. Harald Drager, TIEMS Vice President Guosheng Qu and TIEMS Chair of TIEMS International Program Committee Sandro Bologna

TIENE Course Catalog

TIENE Course Catalogue will be similar to the conceptual figure below, where the different courses and their availability are shown in the TIENE worldwide network.

	TIENE Inst 1	TIENE Inst.2	TIENE Inst.3	TIEMS Academy	TIEMS Academy	Others	Others
Course A									
Course B									
Course C									
Etc.									

TIEMS TQC basic steps

Referring back to the Figure of TIEMS TQC Certification Document Flow, the basic steps are represented in the below Graphs.



TIEMS TQC Certification Structure

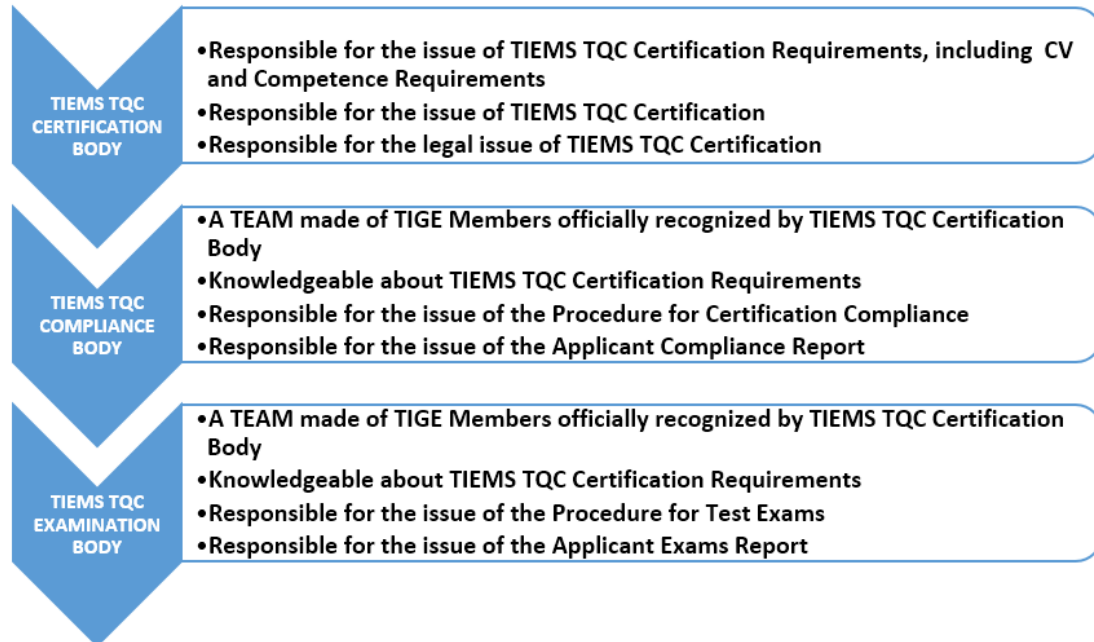


Figure 4. Main roles and responsibilities of the different Bodies of TIEMS TQC International EM Certification

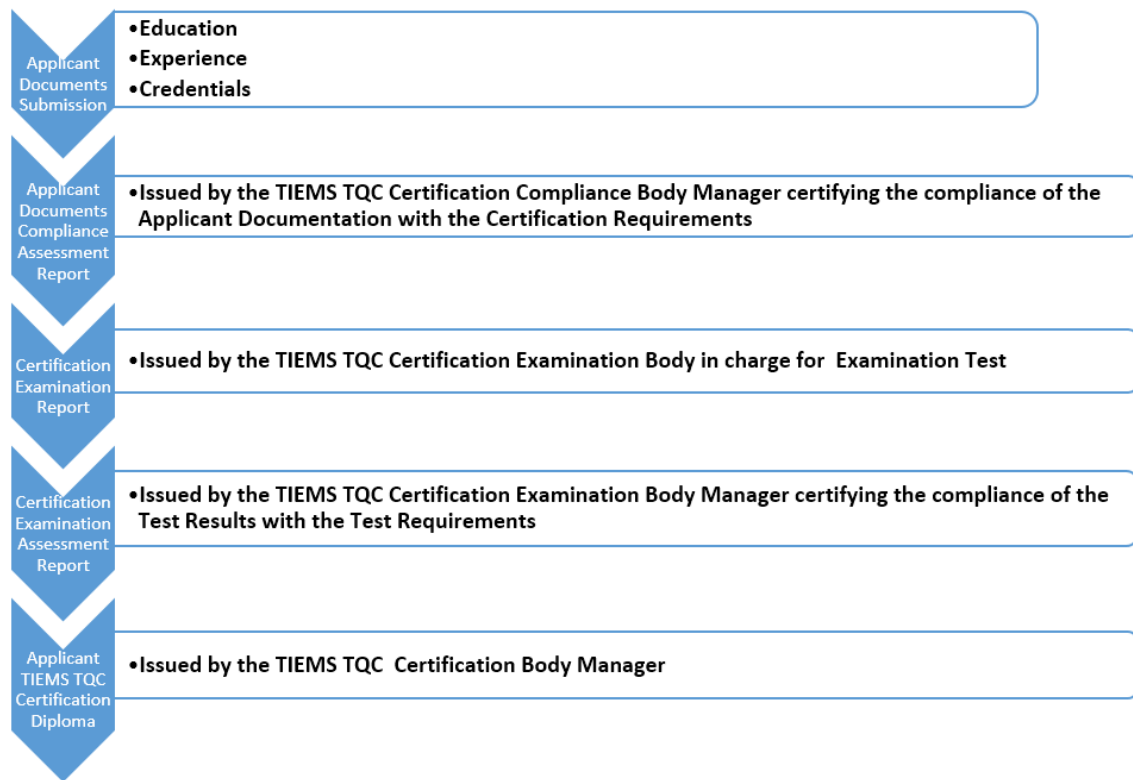


Figure 5. Main roles and responsibilities of the different Bodies of TIEMS TQC International EM Certification into the TIEMS TQC Documentation Flow

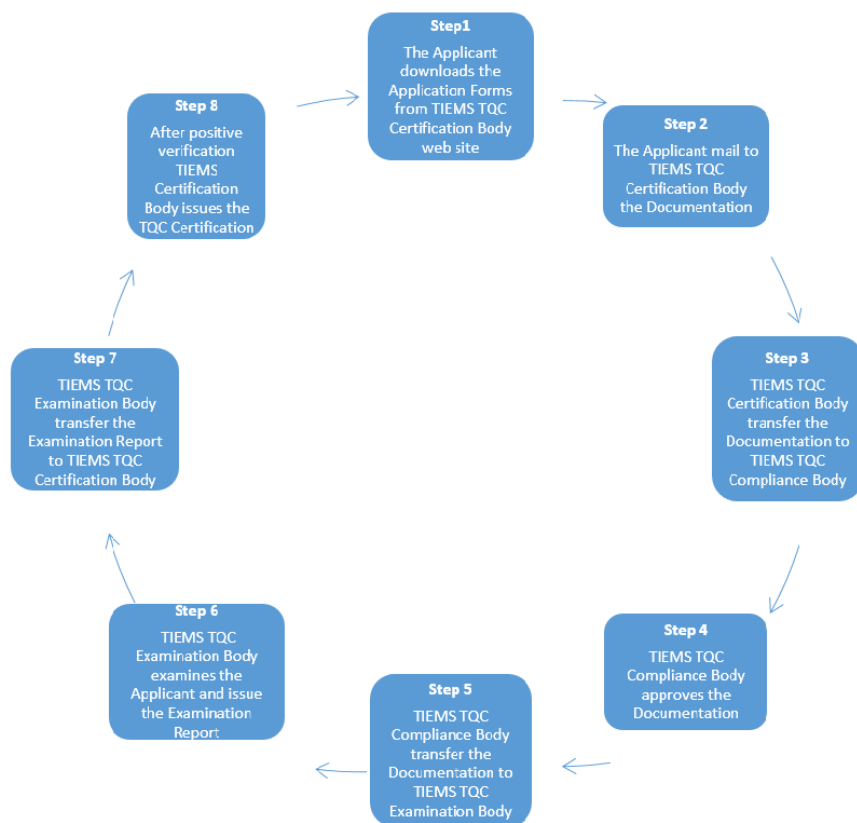


Figure 6. TIEMS TQC Certification Scheme - Eight steps from Application to Certification

Examples of TIEMS TQC Certification Competence Requirements by the Certification Body Compliance

1. Global Overview of International Emergency and Disaster Management (EDM)
2. Deep knowledge of the Reference Global Standards & Best Practices
3. International Emergency and Disaster Management Definitions, Tools and Techniques
4. International Emergency and Disaster Management Planning and Operations
5. International Emergency and Disaster Management Research and Development Worldwide
6. International Emergency and Disaster Management Miscellaneous Issues of Importance

Example of TIEMS TQC Certification Test Requirements by the Certification Body Examination

1. Essay questions, e.g.,
 - “Describe how the United Nations has worked to bring about a reduction in global disaster risk”
2. Fill-in-the-blank questions, e.g.,
 - “In May 1994, UN member states met at the World Conference on Natural Disaster Reduction in _____, Japan, to assess the progress attained by the IDNDR. At this meeting they developed the _____ Strategy and Plan of Action for a Safer World”
3. Multiple choice questions, e.g.,



“Which of the following UN Agencies typically coordinates the response to major disasters”:

- UNHCR, UNOCHA, WFP, UNDP

Workshop 4: Disaster Resilience Industry Presentations

Agenda of Workshop

- QU Guosheng with Jing Xiaobo, Vice President of TIEMS, Full Prof. of National Earthquake Response Support Service (NERSS), Ministry of Emergency Management of The People’s Republic of China

New Developments of Emergency Industry and Management in China and the new approach for the World

- THOMAS V. ROBERTSON, TIEMS NORTH AMERICA DIRECTOR

Emergency Management Industry in North America - Examples

- Bu Bing, Associate Prof. of National Earthquake Response Support Service(NERSS), Ministry of Emergency Management of The People’s Republic of China

Classification and Applications of USAR Equipments

- Xianheng International Science & Technology Co., Ltd
- Longyan Haidexin Automobile Co., Ltd
- Guo Xiaojun, Director of Marketing Department of Qiaolong Company

Case Analysis and Applications of High Power “Dragon Water Sucking” Emergency Drainage Equipments for flooding and waterlog disasters in China in recent year.

- China Harzone Industry Corp., Ltd.

The workshop gave the participants a good insight to the state of the art of industry technology both in China and USA, for disaster resilience equipment and systems.

Conclusion of Workshop of Emergency Industry

During TIEMS 25 Annual Conference in Manila, the Workshop of Emergency Industry had been hold by QU Guosheng and Thomas V. Robertson from 16:00-18:00, afternoon 14, Nov. 2018. There are 7 presentations from China and USA. Chinese delegation show the main productions of emergency industry and also their contributions during the flooding, earthquake, geological and typhoon disaster in recent years in China and cases analysis. Dr. QU Guosheng present the New Developments of Emergency Industry and Management in China and the new approach for the World. Thomas V. Robertson show the present situation of Emergency Management Industry in North America - Examples. Dr. Bu Bing give the Classification and Applications of USAR Equipments. And then Xianheng International Science & Technology Co., Ltd, Longyan Haidexin Automobile Co., Ltd, Qiaolong Company and China



Harzone Industry Corp., Ltd. Make the presentations on the emergency industry productions and their applications in recent years. For examples, Qiaolong Company make Case Analysis and Applications of High Power “Dragon Water Sucking” Emergency Drainage Equipments for flooding and waterlog disasters in China in recent year.

Types and Locations of National Emergency Industry Pilot Basements

2017

Devang City of Sichuan Province:
Earthquake and Geological Disasters Emergency Response and Rescue

Fushun and Shenfu New District:
Coal Mine and Chemical Emergency Response and Rescue

Changsha Economic Development District ,
Hunan Province:
**Heavy Emergency Equipments
Manufacture**

Longyan City, Fujian Province: **Emergency
Equipments Manufacture +Emergency
Service**

Economic Development District of UluMuqi,
Construction Group of Xinjiang
Autonomous Region: Anti- terrorism and
Maintain Stability

Map of High Disaster Risk and Location of National Emergency Industry Pilot Basements



Danko Emergency Equipment*



300 Gallon Skid System



Airport Crash Truck



Tanker/Pumper



Quick Attack



Compressed Air Foam System

*302 East 4th St, Snyder, NE 68664-0218
<http://www.danko.net/>



Drain on Road



308 provincial highway in Dongfang Village of Jitai Town

1 detachable Drainage Vehicle ($1000\text{m}^3/\text{h}$) , worked for 48 hours, $48,000\text{m}^3$ in total

Drain in Factory - Sand Factory in Songjiazi Village



9 Vehicles in total :

1 Vertical($3000\text{m}^3/\text{h}$)

1 Vertical($1500\text{m}^3/\text{h}$)

2 Detachable($3000\text{m}^3/\text{h}$)

4 Detachable($1000\text{m}^3/\text{h}$)

1 Vertical($5000\text{m}^3/\text{h}$)

109 hrs in total

$2,125,500\text{m}^3$ in total





HZ51 Fast Bridge



- The Longest Single-span Mechanized Bridge in the World.
- This bridge equipment has already been equipped by the Chinese, Thai and Lao Army.



One of our equipment is military Mechanized bridge, we also called it fast bridge. Such as the 21 fast bridge, 51 fast bridge, and modular fast bridge. They have different functions.



TIEMS 2018 Conference Second Day

<p><i>Welcome to University of Santo Tomas</i> UST Rector Herminio Dagohoy, O.P., Ph.D.</p>
<p><i>TIEMS International Activities to improve Global Resilience</i></p> <p>K. Harald Drager <i>TIEMS President</i></p> <p>An update of TIEMS development and Activities Worldwide</p>
<p><i>State of Civil Protection in the world: Typologies, Good practices and Economic Returns</i></p> <p>Lesley Jeanne Y. Cordero <i>Senior Disaster Risk Management Specialist World Bank</i></p>
<p><i>How to Predict the Next Big Earthquake in Manila? Is it possible? The AMaDeUs Approach</i></p> <p>Dimitar Ouzounov <i>Chapman University, USA</i></p>
<p>COFFEE BREAK</p>

<p>Tyler Gates <i>USA</i></p>	<p><i>Virtual Reality in Emergency Management</i></p>
<p>Roman Tandlich, Hallo Angala, Eunice Paidamoyo Vhiriri, Nosiphiwe P Ngqwala & Bongumusa M Zuma <i>South Africa</i></p>	<p><i>Scoping and understanding of vulnerability in the context of WASH, ethics and disaster Management</i></p>
<p>Bhaskararao Mulam <i>India</i></p>	<p><i>Regional Collaborative Strategies for Preventing Disaster Risks in South Asia: Need for a better Cooperation and Coordination among the SAARC Member Countries</i></p>
<p>Thomas Robertson <i>USA</i></p>	<p><i>Applications of Advanced Information Technologies to Disaster Risk Reduction</i></p>



Neil Dufty
Australia

A New Approach to Disaster Education

TIEMS ANNUAL GENERAL MEETING

LUNCH BREAK

I HEARD IT ON THE INTERNET! Common Emergency Management & Business Continuity Challenges

Alex Fullick
TIEMS Newsletter Editor

MBCI, CBCP, CBRA, v3ITIL has been assisting major Canadian organizations initiate and manage customized Business Continuity Management (BCM) programs for over 19 years. He is the Founder and Managing Director of StoneRoad, a consultancy and training firm specializing in BCM.

Bhaskararao Mulam
India

Regional Collaborative Strategies for Preventing Disaster Risks in South Asia

Snjezana Knezic
Croatia

Operational procedures for the long term cultural heritage adaptation strategies against climate change induced disasters

Sandro Bologna
Italy

From Protection to Resilience

COFFEE BREAK



Jaroslav Pejcoch
Czech Republic

Smart City - Secure Haven or Threat?

Young Jai Lee, Yejin Kim &
Seong Kyung Kang
South Korea

*Lessons Learned from Korean Local
Government Disaster Risk Reduction (DRR)
Manuals and Capacity Building Activities*

TIEMS GALA DINNER



After a warm and formal welcome by a flag ceremony and a welcome speech by Rector Herminio Dagohoy of University of Santo Tomas, TIEMS President set the scene for the conference by a presentation of the worldwide disaster risk and its related cost, and TIEMS activities for making the worldwide societies more resilient.

His speech was followed by a keynote speech by Lesley Jeanne Y. Cordero of the World Bank, presenting the World Bank Study on Civil Protections Worldwide, and its preliminary findings. Dimitar Ouzounov followed up with a presentation on a promising model for earthquake predictions, the AMaDeus Approach.



Alex Fullick addressed the issue of “I heard it on the internet”, and its implications on reactions and beliefs.

The Keynotes were followed by 10 presentations on different topics of disaster resilience around the world by speakers from 9 countries, as the final program above shows.

The TIEMS Annual Meeting reported on TIEMS activities in 2017 - 2018 and during the election the following Directors were elected for the coming three year period:

1. Treasurer - Jack Zhang (China)
2. Regional Director for Asia - Rodney Jagolino (Philippines)
3. Regional Director for Asia (Roma Tandlich (South Africa)

TIEMS 2018 Conference Third day

Soon-Joo Wang <i>South Korea</i>	<i>Use of Hazard Vulnerability Analysis(HVA) as a Life Saving Tool for Disaster Preparedness</i>
Kailash Gupta & Suresh Kumar Ola <i>India</i>	<i>World's 100 Resilient Cities, India's 100 Smart Cities, and Jaipur Resilient & Smart City</i>
Tererai Nhokodi, Sbuda Dwani & Roman Tandlich <i>South Africa</i>	<i>Case study on disaster risk reduction and public health implications management in South Africa</i>
COFFEE BREAK	
<i>The Philippines' Current Strategies in Earthquake Disaster Risk Reduction</i>	
Renato U. Solidum, Jr.	
<i>Undersecretary for Disaster Risk Reduction and Climate Change, Department of Science and Technology and Officer-In-Charge, Philippine Institute of Volcanology and Seismology</i>	
<i>Department of Science and Technology and Philippine Institute of Volcanology and Seismology (DOST-PHIVOLCS)</i>	



*USAR/CERTs Capacity Buildings and National Accreditation Process
(NAP) of USAR Lessons Learned From China*

QU Guosheng

TIEMS Vice President

Prof. National Earthquake Response Support Service (NERSS), CEA

Expert Group Leader of USAR of CEA

*Deputy General Team Leader of China International Search and Rescue Team
(CISAR)*

*Director, Research Centre of Digital Disaster Mitigation and Emergency
Management, IDC, Peking University.*

*People, Supply and Information (PSI) Resilience Index for SMEs in the
Philippines*

Ramil “Mel” Cabodil

President

Business Continuity Managers Association of the Philippines (BCMAP)

Presentation of TIEMS 2019 Annual Conference Venue

Will take place in Seoul, Korea 12 - 15 November 2019

Hosted by

TIEMS Korea Chapter jointly with the Korean Society for Disaster & Security

CONFERENCE SUMMARY & CONCLUSIONS

TOUR

The conference will conclude and finalize before lunch on 16th of November, and after lunch there will be a tour to the Office of Civil Defense- National Disaster Risk Reduction Management Council (OCD-NDRRMC) Emergency Operations Center & Earthquake Center.

There were three important keynotes the last day of the conference, first a presentation on “*The Philippines' Current Strategies in Earthquake Disaster Risk Reduction*” by Renato U. Solidum, Jr., giving an overview of how Philippines authorities dealt with the earthquake risk in the Philippines, and then TIEMS Vice President Guosheng Qu how China was building capacity in Search & Rescue in China. The last presentation of the conference was by Ramil Cabodil, addressing business continuity efforts in small and medium size companies in the Philippines.



In addition there were 3 presentations on different topics of disaster resilience around the world by speakers from 3 countries, as the final program above shows.

Before TIEMS President closed the technical program of TIEMS 25th Anniversary and 2018 Annual Conference, Soon-Joo Wang, Vice President in TIEMS Korea Chapter, informed about the venue for TIEMS 2019 Annual Conference, which will take place in Seoul, Korea 12 - 15 November 2019, and which be hosted by TIEMS Korea Chapter jointly with the Korean Society for Disaster & Security.



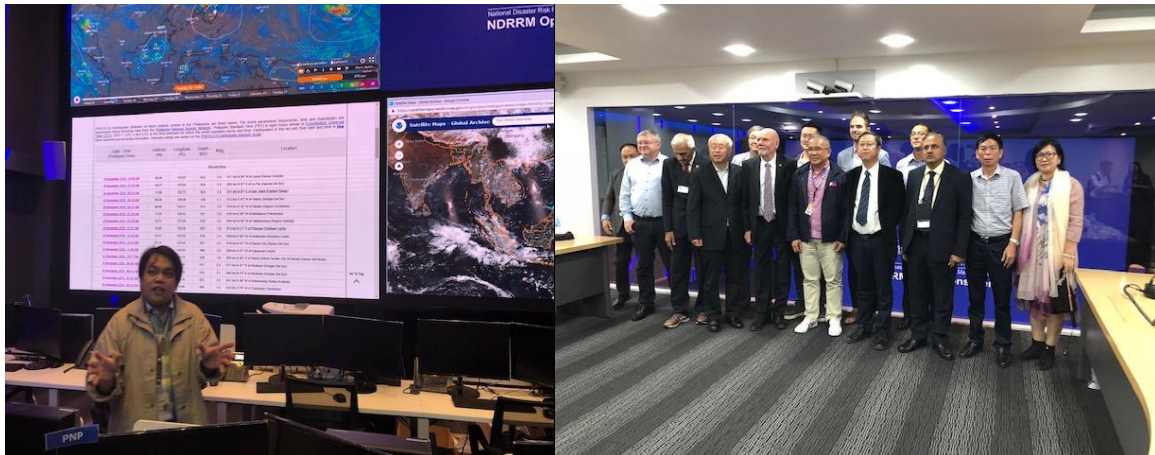
TIEMS President expressed his many thanks to the local organizing committee in the Philippines, all the presenters, and participants, and declared that TIEMS 25th Anniversary and 2018 Annual Conference had been another TIEMS success, and wished all delegates a safe journey home, and welcomed to TIEMS 2019 Annual Conference in Seoul, Korea. Before the departure for the tour the below group picture was taken:





The last event of the conference was a tour to the *Office of Civil Defense - National Disaster Risk Reduction Management Council (OCD-NDRRMC) Emergency Operations Center & Earthquake Center*, and to *Metropolitan Manila Development Authority*.

TIEMS delegates were warmly greeted both places and given a brief presentation of the authorities strategies and systems dealing with the disaster risks in the Philippines and Manila.



Office of Civil Defense - National Disaster Risk Reduction Management Council (OCD-NDRRMC) Emergency Operations Center



A warm welcome also at MMDA



Overview of Manila Traffic situation

Summing Up



Summing up and concluding the conference with piano music by TIEMS Secretary Jaroslav Pejcoch from Czech Republic. This was another successful TIEMS International event with speakers from 12 countries presenting altogether 50 papers focusing on how to make the world more resilient.