

**21 & 22 January 2010  
Grand Copthorne Waterfront  
Singapore**



***Public-Private Partnership in  
Understanding, Communicating  
and Managing Catastrophe Risk***

**Inaugural International Symposium  
On Catastrophe Risk Management**

**On the Occasion of the Launch of the  
Institute of Catastrophe Risk Management  
Nanyang Technological University, Singapore**

*Organized by:*



Institute of Catastrophe  
Risk Management (ICRM)  
& College of Engineering

*Supported by:*



Earth Observatory of Singapore (EOS)  
S. Rajaratnam School of International Studies (RSIS)  
Nanyang Business School (College of Business)  
School of Civil & Environmental Engineering

# **Inaugural International Symposium On Catastrophe Risk Management**

## **Welcome Messages**



### **Professor Haresh Shah**

*Founding Chairman, Advisory Board, ICRM; NTU Board of Trustee member; Emeritus Professor, Stanford University; Founder & Senior Advisor, RMS Inc., USA.*

Let me on behalf of the Nanyang Technological University (NTU) warmly welcome our most esteemed Guest-of-Honour, Speakers and Delegates to the Inaugural International Symposium on Catastrophe Risk Management and to the launch of NTU's Institute of Catastrophe Risk

Management (ICRM). ICRM's vision is to be Asia's leading research institute in catastrophe risk. This vision is part of NTU's drive to be a world's leading university addressing key global challenges affecting humanity and society. I invite you to share in our vision for ICRM and look forward to your collaboration as we embark on our efforts in this new and exciting venture.



### **Professor Tso-Chien Pan**

*Symposium Chair, Founding Director, ICRM & Dean, College of Engineering, NTU, Singapore*

On behalf of the Organising Committee, I extend warmest greetings to our Guest-of-Honour, Speakers and Delegates to our Symposium and to the launch of NTU's Institute of Catastrophe Risk Management (ICRM). This Symposium brings together the world's leading experts in catastrophe risk spanning academia, industry and government. The Symposium's discussions

will undoubtedly stimulate new ideas, develop novel strategies and investigate policy implications leading to innovative Public-Private Partnerships in managing catastrophe risk which is the theme of this Symposium. Leveraging off these discussions, ICRM will embark on state-of-the-art multidisciplinary research that will lead to dramatically better understanding, communicating and managing of major disasters, both natural and non-traditional, and thereby provide major positive impacts on society. I am certain that you will share in our excitement for ICRM and I invite your participation. Last but not least, I wish all of you a most wonderful time in Singapore.

## **Background**

In recent years, the nature and effects of disasters have changed. Simultaneously in Asia, high levels of economic activities take place in a low 'risk-awareness' environment. Asia faces challenges in understanding and recognising risk, risk quantification (in social, economic and environmental realms) and risk management. NTU's risk research agenda is driven by the principle that catastrophic risk impacts the functioning and indeed the whole fabric of society. Understanding, communicating and managing catastrophic risk require comprehensive methodologies for risk quantification and mitigation. The Institute of Catastrophe Risk Management (ICRM) will be the first multi-disciplinary risk management research institute of its kind in Asia and amongst a handful of such foremost centers worldwide. It will lead NTU in a new wave of integrative research efforts in its domain. It will also be a key player in Singapore's effort to strengthen its position as a major financial hub.

## **Objectives**

The Symposium provides a platform for leading academics, researchers, senior finance/insurance professionals, regulators and representatives from relevant government agencies and private and public sector organisations from Asia and the rest of the world to share and exchange information on catastrophe risk management. Topics to be discussed include the insurance and (re)insurance landscape in Asia, public policy and societal perspectives with regard to catastrophe risk, and the latest developments related to risk assessment and management of disasters. Such disasters encompass natural and non-traditional disasters including earthquakes, floods, typhoons and terrorism. The aim is to raise public and private awareness and understanding of the risks and potential impacts. The Symposium will provide a springboard for deepening current efforts in catastrophe risk management, so as to develop new public-private partnerships as well as multi-faceted strategies in mitigation.

**The four themes for the 2-day Symposium are:**

**Theme 1 : Global Insurance and Reinsurance Landscape with Emphasis on Asia**

**Theme 2 : Societal Perspective as Major Stakeholders of Catastrophe Risk**

**Theme 3 : Risk and Public Policy, the Implications and Public Policy Issues related to Catastrophe Risk**

**Theme 4 : Loss Modelling and Risk Assessment**

## International Symposium on

# Catastrophe Risk Management

### Day 1 Programme / 21 January 2010, Thursday

0830 - 0900	Registration
0900 - 0910	Welcome Greeting <b>Prof Tso-Chien Pan</b> , Founding Director, ICRM and Dean, College of Engineering, Nanyang Technological University, Singapore
0910 - 0925	Welcome Address <b>Dr Su Guanin</b> , President, Nanyang Technological University, Singapore
0925 - 0945	Opening Address Guest-of-Honour <b>Mr Heng Swee Keat</b> , Managing Director, Monetary Authority of Singapore, Singapore
0945 - 1000	Official Launch of ICRM Guest-of-Honour <b>Mr Heng Swee Keat</b> , Managing Director, Monetary Authority of Singapore, Singapore <b>Dr Su Guanin</b> , President, Nanyang Technological University, Singapore <b>Mr Derek Teo</b> , President, General Insurance Association, Singapore
1000 - 1045	Morning Refreshments
1045 - 1100	Speech by <b>Prof Bertil Andersson</b> , Provost, Nanyang Technological University, Singapore
1100 - 1130	Speech by <b>Prof Hareesh Shah</b> , Founding Chairman, Advisory Board, ICRM; Member of the Board of Trustees, NTU; Emeritus Professor, Stanford University; Founder & Senior Advisor, RMS Inc., USA
1130 - 1230	Lunch
<b>THEME 1</b> <b>GLOBAL INSURANCE AND REINSURANCE LANDSCAPE WITH EMPHASIS ON ASIA</b>	
1230 - 1315	Keynote Address 1 <b>The New Geography of Catastrophe Risk, Capital and Information in a Modelled World</b> <b>Mr Rowan Douglas</b> , Managing Director, Willis Re and Chairman, Willis Global Research Network, UK
1315 - 1345	Plenary Presentation 1 <b>Growth of Indian Insurance Industry and Its Impact on Global Insurance</b> <b>Mr Yogesh Lohiya</b> , Chairman and Managing Director, GIC Re, India
1345 - 1415	Plenary Presentation 2 <b>Asia Catastrophe Reinsurance</b> <b>Mr John Tan</b> , Chief Executive, Asia Capital Reinsurance Group Pte Ltd, Singapore
1415 - 1445	Plenary Presentation 3 <b>Institutional Design of Catastrophe Insurance in China: Progress and Challenge</b> <b>Dr Ming Wang</b> , Associate Professor and Director of Integrated Risk Management, Beijing Normal University, Republic of China
1445 - 1515	Panel Discussion 1 Session Chairman: <b>Prof Tso-Chien Pan</b> , Founding Director, ICRM and Dean, College of Engineering, Nanyang Technological University, Singapore Panelists: 1. <b>Mr Rowan Douglas</b> , Managing Director, Willis Re and Chairman, Willis Global Research Network, UK 2. <b>Mr Yogesh Lohiya</b> , Chairman and Managing Director, GIC Re, India 3. <b>Mr John Tan</b> , Chief Executive, Asia Capital Reinsurance Group Pte Ltd, Singapore 4. <b>Dr Ming Wang</b> , Associate Professor and Director of Integrated Risk Management, Beijing Normal University, Republic of China 5. <b>Dr Michael Goodwin</b> , CEO - Asia Pacific, QBE Insurance (International) Limited, Singapore 6. <b>Dr Dong Weimin</b> , Chief Risk Officer, RMS Inc., USA
1515 - 1530	Afternoon Refreshments
<b>THEME 2</b> <b>SOCIETAL PERSPECTIVE AS MAJOR STAKEHOLDERS OF CATASTROPHE RISK</b>	
1530 - 1615	Keynote Address 2 <b>The Risks of Ignoring the Rise of Asia</b> <b>Prof Kishore Mahbubani</b> , Dean and Professor in the Practice of Public Policy, Lee Kuan Yew School of Public Policy, National University of Singapore
1615 - 1645	Plenary Presentation 4 <b>The Role of the Earth Observatory in Building Sustainable Civilisation</b> <b>Prof Kerry Sieh</b> , Director, Earth Observatory of Singapore, Nanyang Technological University, Singapore
1645 - 1715	Plenary Presentation 5 <b>Mediating Risk</b> <b>Prof Mely Caballero-Anthony</b> , Head, Centre for Non-Traditional Security Study, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore
1715 - 1745	Panel Discussion 2 Session Chairman: <b>Mr Malcolm Steingold</b> , CEO, Asia-Pacific, Aon Benfield, Singapore Panelists: 1. <b>Prof Kishore Mahbubani</b> , Dean and Professor in the Practice of Public Policy, Lee Kuan Yew School of Public Policy, National University of Singapore 2. <b>Prof Kerry Sieh</b> , Director, Earth Observatory of Singapore, Nanyang Technological University, Singapore 3. <b>Prof Mely Caballero-Anthony</b> , Head, Centre for Non-Traditional Security Study, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore 4. <b>Dr Chris Mortgat</b> , Vice President, RMS Inc., USA

## International Symposium on

# Catastrophe Risk Management

Day 2 Programme / 22 January 2010, Friday

### THEME 3

#### RISK AND PUBLIC POLICY, THE IMPLICATIONS AND PUBLIC POLICY ISSUES RELATED TO CATASTROPHE RISK

0900 - 0945	Keynote Address 3 <b>Catastrophe Risk Management in the Public Sector</b> <b>Mr Michael Rich</b> , Executive Vice President, RAND Corporation, USA
0945 - 1015	Plenary Presentation 6 <b>Catastrophe Science Inputs into Public Policy Decisions</b> <b>Dr Andrew Coburn</b> , Vice President, Emerging Risk Solutions, RMS Inc., UK
1015 - 1045	Plenary Presentation 7 <b>Current and Emerging Threat of Terrorism</b> <b>Prof Rohan Gunaratna</b> , Professor of Security Studies, Head, International Centre for Political Violence and Terrorism Research, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore
1045 - 1115	Morning Refreshments
1115 - 1200	Panel Discussion 3 Session Chairman: <b>Prof Edmond Lo</b> , Chair, School of Civil and Environment Engineering, College of Engineering, Nanyang Technological University, Singapore Panelists: 1. <b>Mr Michael Rich</b> , Executive Vice President, RAND Corporation, USA 2. <b>Dr Andrew Coburn</b> , Vice President, Emerging Risk Solutions, RMS Inc., UK 3. <b>Prof Rohan Gunaratna</b> , Professor of Security Studies, Head, International Centre for Political Violence and Terrorism Research, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore 4. <b>Dr Charles Scawthorn</b> , Professor (Ret.), Kyoto University, Japan; President, SPA Risk LLC 5. <b>Dr Pane Stojanovski</b> , Vice President, Model Development Operations, RMS Inc., USA
1200 - 1300	Lunch
<b>THEME 4</b> <b>LOSS MODELLING AND RISK ASSESSMENT ON ASIA</b>	
1300 - 1345	Keynote Address 4 <b>Drivers of Catastrophe Risk Across Asia</b> <b>Mr Hemant Shah</b> , President & CEO, RMS Inc., USA
1345 - 1415	Plenary Presentation 8 <b>Leveraging Catastrophic Risk Measurement Capabilities</b> <b>Mr David Lightfoot</b> , Managing Director, Guy Carpenter & Co, LLC, USA
1415 - 1445	Plenary Presentation 9 <b>The Challenges for Catastrophe Loss Risk Modelling in Meeting the Future Needs of Asia</b> <b>Dr George Walker</b> , Aon Benfield Honorary Research Fellow, Adjunct Professor of Civil Engineering, James Cook University, Australia
1445 - 1515	Plenary Presentation 10 <b>NatCat Risk Assessment for Eastern Asia: Needs and Potential Solutions</b> <b>Dr Anselm Smolka</b> , Head, GEO Division, Munich Re, Germany
1515 - 1545	Afternoon Refreshments
1545 - 1615	Plenary Presentation 11 <b>On the Use of Actuarial Models in Mortality Projections</b> <b>Prof Jackie Li</b> , Division of Banking & Finance, Nanyang Business School, Nanyang Technological University, Singapore
1615 - 1700	Panel Discussion 4 Session Chairman: <b>Mr Scott Ryrie</b> , CEO, Allianz SE Reinsurance Branch Asia-Pacific, Singapore Panelists: 1. <b>Mr Hemant Shah</b> , President & CEO, RMS Inc., USA 2. <b>Mr David Lightfoot</b> , Managing Director, Guy Carpenter & Co, LLC, USA 3. <b>Dr George Walker</b> , Aon Benfield Honorary Research Fellow, Adjunct Professor of Civil Engineering, James Cook University, Australia 4. <b>Dr Anselm Smolka</b> , Head, GEO Division, Munich Re, Germany 5. <b>Prof Jackie Li</b> , Division of Banking & Finance, Nanyang Business School, Nanyang Technological University, Singapore
1700 - 1715	Close of Symposium <b>Prof Tso-Chien Pan</b> , Founding Director, ICRM and Dean, College of Engineering, Nanyang Technological University, Singapore



# Symposium Information

## Meeting Venue

Grand Ballroom II, Level 4

Grand Copthorne Waterfront Hotel Singapore  
392 Havelock Road Singapore 169663

Tel: 65 6733 0880 Fax: 65 6737 8880

Grand Copthorne Waterfront Hotel Singapore is ideally situated on the corner of Havelock Road and Kim Seng Road. Along the banks of the historic Singapore River, the Central Business District (CBD) is just minutes away and the hotel is easily accessible to the entertainment areas of Chinatown and Orchard Road.



## Accommodation

Special room rates have been secured for the Symposium participants.

No	Official Hotel	Category	Room Type	Room Rates	
				Single	Twin
1	Grand Copthorne Waterfront Hotel	5-Star	Deluxe	SGD 245++	SGD 265++
			Superior	SGD 215++	SGD 235++
2	Copthorne King's Hotel	4-Star	Deluxe	SGD 225++	SGD 240++
			Superior	SGD 195++	SGD 210++

Note :

- The above rates are:
  - \* specially negotiated for ICRM Symposium participants and are only valid for the period of 20 – 23 January 2010.
  - \* inclusive of daily breakfast and use of broadband service in the room.
  - \* subject to service charge and prevailing government taxes including GST.
- The guestrooms are available for reservation until 28 December 2009. Thereafter, rooms are subject to availability at Hotel's best available rate.
- For reservations, please contact the symposium secretariat for assistance.

## Visa Requirements

Invitation letters for visa application will be issued upon request and at the discretion of the organisers.

Visitors must have passports valid for at least six months from the time of arrival. For enquiries regarding visa requirements, please check with your airline, travel agent or the nearest Singapore Embassy in your country.

## About Singapore

Singapore is a well-connected city located at the heart of Southeast Asia. Its world-class transport system and efficient public transportation network make travelling around the island a smooth and seamless journey.

A thriving centre of commerce and industry, Singapore is an important financial centre of Asia. Business dealings are facilitated by Singapore's superb communications network which links the nation to the rest of the world via satellite, 24-hour telegraph and telephone systems.

Singapore's strategic location, excellent facilities, fascinating cultural contrasts and tourist attractions make it an ideal destination for both business and pleasure.

## Symposium Secretariat

For more information or assistance, please contact the symposium secretariat :

### E-Quezt Concierge Pte Ltd

167 Jln Bukit Merah Tower 4 SR 21 #06-12 S150167

Tel : 65 6271 2453 Fax: 65 6271 2439 Email: [pco@e-quezt.com](mailto:pco@e-quezt.com)

Contact: Ms Rachel Lim