BRUNEL INTERNATIONAL LECTURES

The Institution of Engineers, Malaysia

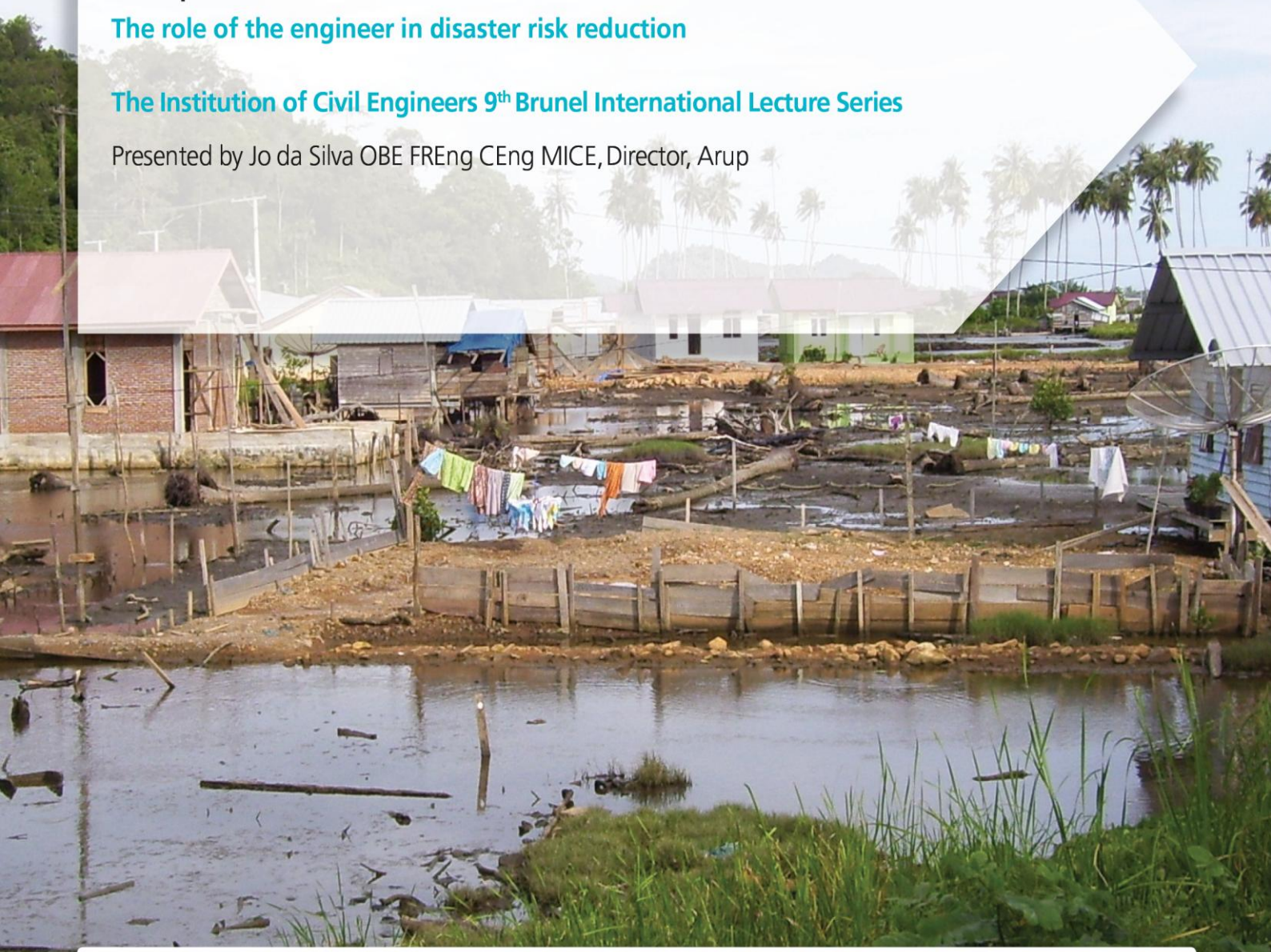
Institution of Civil Engineers

Shifting agendas:
response to resilience

The role of the engineer in disaster risk reduction

The Institution of Civil Engineers 9th Brunel International Lecture Series

Presented by Jo da Silva OBE FREng CEng MICE, Director, Arup



The frequency and impact of disasters is increasing, whether measured by loss of life or economic costs. This trend is set to continue as the risks associated with climate change are compounded by rapid urbanisation and environmental degradation. In 2010, 300 million people were affected by disasters, and according to recent studies, the number of people living in cities that are vulnerable to earthquakes and cyclones will treble by 2050.

In this lecture Jo da Silva, Director International Development at Arup proposes that it is time for civil engineers to cease practising 'the art of directing the great sources of power in Nature for the use and convenience of mankind'. Instead we should acknowledge the fundamental role we have to play in reducing the vulnerability of mankind.

9th Brunel International Lecture Series

SHIFTING AGENDAS: FROM RESPONSE TO RESILIENCE

THE ROLE OF THE ENGINEER IN DISASTER RISK REDUCTION

29 April 2013
5.00 pm – 7.00 pm

Venue:

Prof. Chin Fung Kee Auditorium
Wisma IEM
No. 21, Jalan Selangor
46200 Petaling Jaya, Selangor Darul Ehsan

Organized by:

Consulting Engineers Special Interest Group, IEM (CESIG)
The Institution of Civil Engineers, UK (ICE)

Managed by:

IEM Training Centre Sdn. Bhd.

BEM Approved CPD hours = 3. Reference no. To be advised

9th Brunel International Lecture Series

Shifting Agendas: From Response To Resilience

The Role Of The Engineer In Disaster Risk Reduction

By our actions we can either compound disasters or diminish them'

The frequency and impact of disasters is increasing, whether measured by loss of life or economic costs. This trend is set to continue as the risks associated with climate change are compounded by rapid urbanisation and environmental degradation. In 2010, 300 million people were affected by disasters, and according to recent studies, the number of people living in cities that are vulnerable to earthquakes and cyclones will treble by 2050 . There are also over 30 million people who are currently displaced, having fled conflict or persecution. Estimates claim that by 2050, 200 million more migrants may be fleeing the effects of climate change. Our collective ability to reduce the risk of disaster will increasingly define the 21st century, requiring civil engineers to recognise their role in enabling communities to survive as well as to thrive.

The last 30 years has seen increasing recognition of the vital role that engineers play in humanitarian response providing clean water, sanitation and shelter, and the roads, bridges and buildings needed to facilitate delivery of food and medical supplies. Over the same period advances in science and technology have enabled us to better predict the forces of nature, and construct taller and more complex structures that are able to better withstand extreme events. Yet the uncertainties of climate change and the pace of urbanisation challenge the 'predict and prevent' paradigm that has underpinned geo-hazard engineering to date, whilst recent disasters have emphasised the limitations of international response. A new approach is required which prioritises creating resilient communities which are able to respond and adapt to changing circumstances and unexpected catastrophes.

The need for fresh action was recognised in 2005 when 168 countries signed the Hyogo Framework: a 10 year action plan to make the world safer from natural hazards. This has catalysed global efforts (mostly by governments and NGOs) to reduce risk. The mid-term evaluation highlighted the importance of making disaster risk reduction central to urban planning and infrastructure investments, as well as the need to actively engage and support scientific and technical communities to inform decision making. This places disaster risk reduction within the engineering community's realm of responsibility.

The ICE's 9th Brunel International Lecture proposes that it is time for civil engineers to acknowledge the fundamental role we have to play in reducing the vulnerability of mankind.

Jo da Silva OBE FREng CEng MICE

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1 Ban Ki Moon, Global Platform for Disaster Risk Reduction 2011
2 Proceedings of the Global Platform for Disaster Risk Reduction and World Reconstruction Conference 2011
3 Internal Displacement (2010) Global Overview of Trends and Development in 2009 IDMC/NRC
4 International Organisation for Migration (2008) Migration and Climate Change, IOM: Geneva

PROFILE OF SPEAKER

Jo da Silva is a Director at Arup where she leads Arup International Development, which she founded in 2007. Having studied engineering at the University of Cambridge, she began her career working in central India before joining Arup as a graduate engineer in 1989. Her subsequent experience as both a chartered civil and structural engineer includes working on significant projects such as Chek Lap Kok airport in Hong Kong, as well as the design of numerous educational, cultural and community facilities and various urban regeneration projects, in both the developed and developing world.

Jo's interest in post-disaster contexts began in 1991 when she became a member of RedR, a non-governmental agency providing training and technical expertise after major disasters. She has provided engineering expertise to service refugee camps during the Rwandan genocide, shelter advice following Hurricane Mitch in 1998 and she co-ordinated the construction of 60,000 shelters in Sri Lanka following the 2004 Indian Ocean tsunami. As a recognised expert in post-disaster shelter and reconstruction, she has authored various publications including 'Lessons from Aceh: Key Considerations in Post-Disaster Reconstruction' and 'Engineering and Disaster Resource-Partnership: A new public-private partnership model for disaster response'

Over recent years, Jo has established Arup International Development as a not-for profit business within the Arup Group, and is working in partnership with humanitarian and development organisations (including the Rockefeller Foundation, UNOPS, Habitat for Humanity, Oxfam, the Aga Khan Development Network and the International Federation of the Red Cross) providing strategic advice and technical expertise to help realise the sustainable and resilient communities required to meet today's global challenges of rapid urbanisation, the uncertainty of climate change and widespread poverty.

Jo currently sits on the Grants Panel of the Humanitarian Innovation Fund and the International Development Policy and Practice Panel at the Institution of Civil Engineers. She also lectures at the Centre for Sustainable Development at the University of Cambridge. In 2009, she was elected a Fellow of the Royal Academy of Engineering and last year became an Officer of the British Empire (OBE) for services to engineering and to humanitarian relief.

Ir. Dr. Ooi Teik Aun
Chairman
Consulting Engineers Special Interest Group, IEM
ICE Country Representative for Malaysia

Notes to Announcement:

1. Limited seats available on a "first come first served" basis.
2. No telephone and/or fax reservation will be entertained.
3. Latecomers will not be allowed entrance, if the lecture hall is full.
4. Please bring along this flyer and membership card for confirmation of attendance for CPD purposes.

For IEM/ICE members, membership cards MUST be presented for identification purpose. Members who fail to show their membership card will be charged a fee of RM20.00.

FUNDS FOR IEM NEW BUILDING

Kindly be informed that IEM will be charging participants RM10.00 administrative fee to talks organized by IEM. The fee would be used for overhead costs, building maintenance expenses as well as to support the purchase of the new building.

Students are however exempted. Your understanding is greatly appreciated.

CPD HOURS CONFIRMATION

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Signature: ……. Date : .....