SESSION OBJECTIVES
To examine and understand the underlying knowledge associated with achieving a more sustainable built environment through the enhancement of resilience measures on Critical Infrastructure and Disaster Risk Reduction mechanism.

PROPOSED LIST OF SPEAKERS

- Prof. Dilanthi Amarathunga (University of Huddersfield)
- Prof. Richard Haigh (University of Huddersfield)
- Prof. Ranjith Dissanayake (University of Peradeniya)
- Dr. Chaminda Bandara (University of Peradeniya)
- Dr. Chandana Siriwardana (University of Moratuwa)
- Dr. Nishara Fernando (University of Colombo)
- Mr. Charitha Ratwatte (Dialog Axiata PLC)

DISCUSSION AGENDA AND STRUCTURE

Under this session, the following sub-categories will be covered:

- Evacuation planning - Professor Dilanthi Amarathunga
- Health monitoring of the buildings/bridges - Professor Ranjith/Dr. Bandara
- Technological applications - Mr. Charitha Ratwatte
- Safe Hospital paradigm which represents socio-economic aspects of CI – Dr. Chandana Siriwardana
- Evacuation routes and evacuation planning

EXPECTED OUTCOMES

- Understanding of the importance of enhancing the resilience capacity of Critical Infrastructure
- Understanding the importance of Community-centric MHEW systems
- Understanding the key components of Critical Infrastructure which needs more focus in terms of Disaster Risk Reduction
- Understanding how to enhance the sustainable living conditions of the community through proper implementation of DRR mechanism
- Real actions addressing the challenge of the implementation and achievement of the Sendai Framework target on minimizing disaster damage to CI and directing towards DRR measures

BACKGROUND AND RATIONALE
“The Sendai Framework for Disaster Risk Reduction” Target 4 aims at substantially reducing the disaster damage to Critical Infrastructure (CI) and disruption of basic services such as water, electricity, telecommunication, road network, energy supply, health and educational facilities. However, the expansion of the world’s population with the acceleration of urbanization and deforestation lead more towards an increase in the necessity of managing the functionality of the infrastructure. Furthermore, when the system gets disturbed by the impacts of Climate Change induced natural hazards, the proper functionality of the whole infrastructure system becomes more critical.

Hence, the necessity of approaching Sustainable Development Goals (SDGs) with a holistic view, has become more prominent. In this context, enhancing the resilience of CI is an emerging paradigm, which directs towards achieving the SDG 9 which calls for building resilient infrastructure and promoting inclusive and sustainable industrialization and fostering innovation. This leads towards the adoption of resilience capacities with respect to enhancing adaptive, absorptive and transformative aspects. Accordingly, the strengthening of the resilience capacity over natural hazards needs an integrated long-term commitment to enhancing the level of Sustainability.

Another focus should be delivered upon Multi-Hazard Early Warnings (MHEW), which emerged as a vital component of Disaster Risk Reduction (DRR) mechanism which highlighted in the Sendai Framework for Disaster Risk Reduction as one of the seven targets. For that, the application of the newest technological developments can be vividly incorporated with the components of the MHEW mechanism to enhance its level of preparedness.