ABSTRACT OF TALK

The 2011 Tōhoku earthquake, officially named the Great East Japan Earthquake, was a magnitude 9.0 underseamega thrust earthquake off the coast of Japan that occurred at 14:46 JST on Friday, March 11, 2011, with the epicenter approximately 70 kilometers east of the Oshika Peninsula of Tōhoku and the hypocenter at an underwater depth of approximately 32 km. It is the most powerful known earthquakes to have hit Japan, and one of the five most powerful earthquakes in the world overall since modern record-keeping began in 1900. The earthquake triggered extremely destructive tsunami waves of up to 38.9 meters that struck Japan, in some cases traveling up to 10 km (6 mi) inland. Huge damage to the coastal areas of the northern part of the main island was induced mainly by the extremely high tsunami.

This lecture discusses the following points:

1. Brief historical review of large earthquakes and their damage

2. Seismological aspect of the earthquake and characteristics of the recorded ground motions

3. Tsunami and tsunami-induced damage

4. Historical earthquakes and tsunamis in the region

5. Infrastructure damage due to the ground motion

6. Earthquake preparedness for Tokai earthquake

ABOUT THE SPEAKER:

Prof. Yozo Fujino is a professor of Department of Civil Engineering in University of Tokyo. He is engaged in the research of wind engineering, earthquake engineering and structural health monitoring of bridge structures. He is the Vice President of International Association of Bridge and Structural Engineering (IABSE), President of International Association of Structural Control and Monitoring, President of Japan Association of Wind Engineering and Fellow of Japan Society of Civil Engineers etc. He has received the honors of Robert H. Scanlan Medal from American Society of Civil Engineers (2011), Medal with Purple Ribbon from the Emperor of Japan (2007), the Raymond C. Reese research prize from American Society of Civil Engineers (2007), the best paper award from Japan Society of Civil Engineers(2007,1991), the best paper award from Japan Association of Wind Engineering(1995), and the Tanaka best paper award from JSCE (1985, 1998, 2000, 2001, 2002, 2003, 2009).