

Introduction of Awardees

Prof. Nobuo Shuto: Emeritus Professor of Tohoku University, Japan; Professor of Nihon University, Japan



Professor Nobuo Shuto established a tsunami numerical model to predict tsunami characteristics and behaviors in the nearshore zone. He led the TIME (Tsunami Inundation Modeling Exchange) project supported by UNESCO Intergovernmental Oceanographic Commission (IOC) and made the numerical model of Tohoku University accessible without fees. His numerical model became the standard for UNESCO/IOC, and was transferred to 24 countries and 52 organizations, including the United States, Korea, Turkey, and Mexico. He also contributes to the quantification of tsunami damage based on post-tsunami field surveys. In the recovery process from the 2011 Tohoku Earthquake, a combination of his numerical model and his method of damage estimation is being utilized to guide the optimal siting of residential zones as well as the structural requirements for residential buildings. He was awarded the International Coastal Engineering Award given by the American Society of Civil Engineers and the Japan Academy Prize for “Comprehensive research on tsunami hazard mitigation.”

Dr. Eddie Bernard: Former Director of NOAA's Pacific Marine Environmental Laboratory, USA



Dr. Eddie Bernard, who served as the founding chair of the U.S. National Tsunami Hazard Mitigation Program, made significant contributions to the development of the tsunami detection and flooding forecast system in use in the United States and along the Pacific Rim. These flooding forecasts are based on real-time data obtained by DART buoys, which accurately measure tsunamis in the deep sea and transmit these data thorough satellites to tsunami warning centers. Deep sea tsunami data are then assimilated into numerical models that forecast flooding before tsunami arrival. After the 2004 Indian Ocean tsunami, the system was expanded to the Indian Ocean and the Caribbean Sea and became the worldwide standard of the tsunami warning system. He was awarded a Service to America Medal(2008) and the Department of Commerce Gold Medal(2005) for his work in establishing an international tsunami detection and forecast system and a U.S. tsunami mitigation program.

National Office of Emergency of the Interior Ministry (ONEMI),Republic of Chile



When a massive tsunami hit Chilean coasts in 2010, tsunami warning was not properly issued because of miscommunication among the three agencies responsible for earthquake monitoring, tsunami forecasting and issuance of warning. Therefore, ONEMI unified the roles of the three organizations, developed a simplified protocol and successfully made the tsunami warning system prompt and reliable. They also conducted tsunami evacuation drills including that at night with the participation of 60,000 people. As a result, the preparation activity for disaster mitigation in Chile was drastically improved. When another large tsunami attacked Chilean coasts in 2015, a regional office of ONEMI issued an order of preventative evacuation 8 minutes after the earthquake occurrence and the ONEMI head office released a warning 2 minutes later. These actions resulted in that 97 percent of residents in the coastal area of the fourth region of Chile (~ 60,000 people) evacuated to safety zones. Such high percentage of evacuation contributed to the reduction of human los