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United Nations Educational, Scientific and Cultural Organization

International Institute of Seismology and Earthquake Engineering IISEE



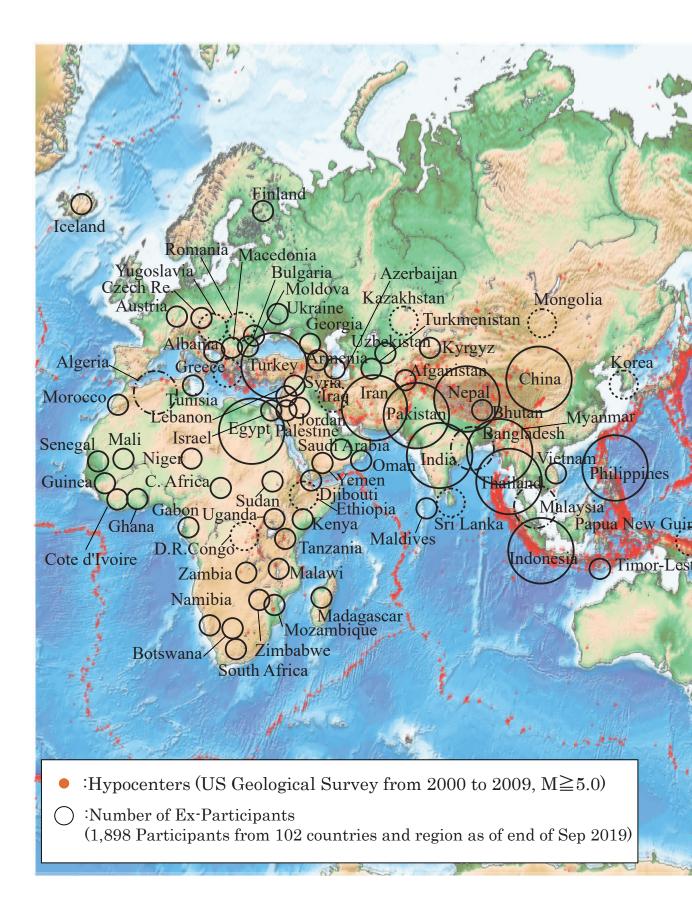


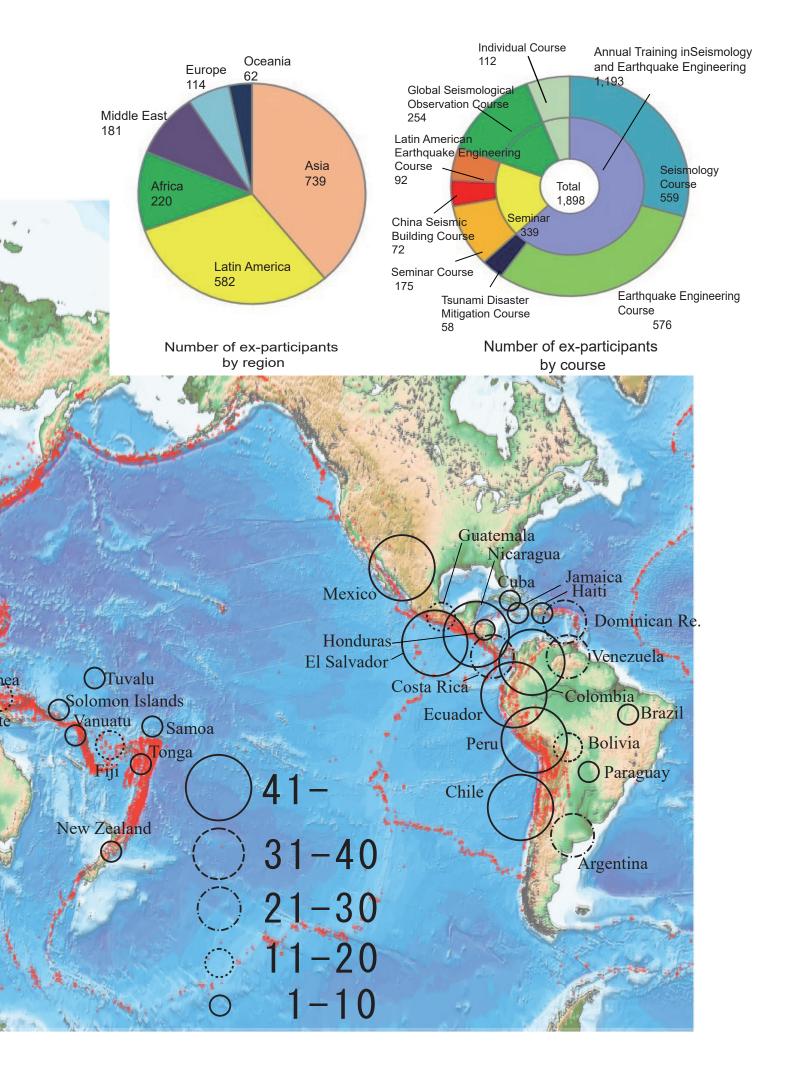


More than 50 years: More than 1,800 participants

The International Institute of Seismology and Earthquake Engineering (IISEE) at the Building Research Institute (BRI) in Tsukuba, Japan provides training program in seismology, earthquake engineering and tsunami disaster mitigation to researchers and engineers from developing countries. As of September 2019, a total of 1,898 participants from 102 countries have completed the training courses from 1960.

Number and Nationalities of Ex-Participants





IISEE Training Course

IISEE mainly conducts one-year training courses named Seismology Course, Earthquake Engineering Course and Tsunami Disaster Mitigation Course, and two-month course named Global Seismological Observation Course and Latin American Earthquake Engineering Course. Short-term training courses focusing on specific themes take place occasionally.



Seismology Course



Earthquake Engineering Course



Tsunami Disaster Mitigation Course

Seismology Course

The course provides advanced knowledge and technology concerning earthquakes and seismic hazards. Participants belong to the organizations for seismic observation responsible and earthquake disaster mitigation in their countries. The lectures such as seismic hazard, risk evaluation and earthquake disaster mitigation policy-making are designed to be useful for the participants after returning to their countries. Practical training, study trips, and participation in international conferences are also included in the program.

Earthquake Engineering Course

The course is designed to contribute to the reduction of structural damages by earthquakes and human suffering caused by those damages in developing countries. The participants are mainly engineers from governments and researchers, universities. The lectures consist of basic studies (structural analysis, structural dynamics, earthquake structures reinforced resistant for concrete construction, steel structures) and the latest studies (seismic isolation, response control technique, seismic limit state design). These are systematically provided through lectures, practices and study trips.

Tsunami Disaster Mitigation Course

The course began in 2006 after the gigantic tsunami generated by the earthquake off Sumatran in 2004. Lectures provide advanced education and technology for dealing with earthquakes and tsunamis. The participants will apply and disseminate their acquired knowledge and techniques for tsunami disaster mitigation and introduce tsunami hazard evaluation and early-warning systems in their countries as specialists.

IISEE Training & History



Global Seismological Observation Course

Global Seismological Observation Course

The course is launched in 1995 at the request of the Ministry of Foreign Affairs of Japan. It is conducted as a part of the Japan's contributions world's nuclear disarmament in the to cooperation with the Japan Meteorological Agency and JICA. The participants are expected to play an important role in the CTBT and IMS. The lectures are seismological observation technologies for monitoring nuclear tests and earthquakes, and data analytical techniques to nuclear discriminate tests from natural earthquakes.

Individual Course

The course is not a group training but designed for participants with high scholastic ability and professional experience. The participant pursues his/her own study individually with his/her supervisor in IISEE.

Other Training Courses

IISEE holds short-term training courses focusing on specific themes such as China Seismic Building Course (2009-2012). It was launched in 2009 after the 2008 Sichuan Earthquake as part of reconstruction support by the Government of Japan. It was 2-month training course managed in Chinese and 72 participants have studied structural technology in IISEE for 4 years. After they returned to China, they gave lectures to 324 local engineers. Those engineers gave lectures to 8,833 local professionals. On June 2014, the Latin American Earthquake Engineering Course is launched.

History of IISEE

After World War II, young researchers and engineers from earthquake-prone developing countries who came to Japan to study seismology and earthquake engineering have been gradually increased. Taking the opportunity of the 2nd World Conference on Earthquake Engineering held in Tokyo in 1960, the leading figures and of seismology and earthquake experts engineering in and out of Japan negotiated about the feasibility of the group training for those people. On July 1960, a nine-month training course was launched in the University of Tokyo.

The training was successful and requested to hold permanently by the relevant countries. The Government of Japan decided and established the IISEE in BRI on January 1962. Between September 1963 and August 1972, the

United Nation's Special Fund and the United Nations Educational, Scientific and Cultural Organization (UNESCO) cooperated with the Government of Japan in holding the training. From September 1972, the training was held solely by the Government of Japan.

On March 1979, BRI and IISEE moved to

Tsukuba from Tokyo and on April 2001 BRI changed to an independent administrative agency by the governmental reform. With the cooperation with the National Graduate Institute for Policy Studies(GRIPS), the IISEE' one-year training program was certified as a GRIPS' master program from October 2005 and the participants are awarded the Master Degrees after the completion of the credits and master's theses.



Latin American Earthquake Engineering Course

Ex-Participants & Master's Degree



Turkmenistan Ex-Participants

IISEE Ex-Participants

After training, the participants make steady efforts to mitigate earthquake disasters and are given leading positions in their countries. Some are shown as follows: *as of Sept 2016

INDONESIA

121 people of the Agency for Meteorology Climatology and Geophysics, the Research Institute for Human Settlement, etc. have joined the training. Prof. Dr. Ir. Djoko Santoso (1978-79, Seismology Course) is Director General of Higher Education, Ministry of National Education and the former rector of the Bandung Institute of Technology.

PERU

129 people, the second number next to China (130) have come to IISEE. They have Japan-Peru Center for Earthquake Engineering Research and Disaster Mitigation in the National University of Engineering (CISMID-UNI) which was established in cooperation with BRI. Dr. Julio Kuroiwa (1961-62, Earthquake Engineering Course), an emeritus of UNI, is one of the founders of earthquake engineering in Peru.

EGYPT

88 people have joined the training. Most of them have come from the National Research Institute of Astronomy and Geophysics (NRIAG). Dr. Rashad Kebeasy (1965-66, Seismology Course) and Dr. Salah Mohamed (1982-83, Seismology Course) served as NRIAG President.

A Master's Degree

In 2005, IISEE formed partnership with the National Graduate Institute for Policy Studies (GRIPS) which is a stand-alone national graduate university focused on policy studies in Japan. Owing to the partnership with GRIPS, one-year training course participants in seismology, earthquake engineering, and tsunami disaster mitigation who have successfully;

- (1) completed one-year training courses,
- (2) obtained the required credits, and
- (3) submitted the theses,

are conferred the degrees of "Master of Disaster Management" certified by GRIPS and BRI/IISEE.

Receiving a master's degree after the one-year training in IISEE is a long-standing request and dream of the participants. With the master's degree, they will devote their career to earthquake disaster mitigation in their respective countries.

As of September 2019, 289 graduates are conferred the degrees from 2005.



Conferment of a Master's Degree in GRIPS

IPRED & Course Classification

IPRED Activities

International Platform for Reducing Earthquake Disasters (IPRED) was established by United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2007. It aims to promote collaboration in research, training and education in the fields of seismology and earthquake engineering. IISEE plays as the Centre of Excellence supported by UNESCO and Japanese Ministry of Land, Infrastructure, Transport and Tourism. The main goals are;

-to exchange information and propose plans regarding seismology and earthquake engineering for reducing earthquake disasters, especially on buildings and housing.

-to address policy-relevant issues related to the reduction of earthquake disaster risks and implementation of the Hyogo Framework for Action, including the formulation of recom-mendations on priorities of the International Strategy for Disaster Reduction (ISDR).

-to establish a system to dispatch experts to earthquake stricken countries in order to carry out post-earthquake field investigations and draw lessons for future risk reduction, by utilizing the worldwide connection of the IISEE graduates.



The 7th UNESCO-IPRED Session in Kazakhstan

Training Course		Field	Estimate	Period	Commencement	Ex-participants	
Regular	Seismology	Seismology	5	1 year (OctSept.) Lectures in Class (8 months) Individual Study (3 months)	1960	559	1,193
	Earthquake Engineering	Earthquake Engineering	10			576	
	Tsunami Disaster Mitigation	Tsunami	5		2006	58	
Short Term	China Seismic Building	Earthquake Engineering	20	2 months	2009 (2009-2012)	72	339
	Latin American Earthquake Engineering	Earthquake Engineering	14	2 months (2 weeks in Latin America)	2014 (2014-2016)	92	
	Seminar Course	Seismology/ Earthquake Engineering	10 to 20	1 to 2 months	1980 (1980-2000)	175	
Global Seismological Observation		Seismology	20	2 months (JanMar.)	1995	254	
Individual		Seismology/ Earthquake Engineering /Tsunami	several	Upon request	1968	112	

IISEE Course Classification

Total: 1,898 as of the end of Sept. 2019

Safe and Peace : to reach Earthquake Disaster Mitigation

In order to reduce earthquake damage in developing countries, it is indispensable for them to fully understand their own characteristics of the seismic source, ground condition, building structures, etc., and to deal with research and development of earthquake disaster mitigation technology. However, their seismological observation system and research system are not always sufficient. Most have not yet obtained the necessary information on earthquake mitigation study. To assist them, IISEE releases databases of earthquake and training information through the website.

http://iisee.kenken.go.jp/



IISEE Net

The information Network of Earthquake Disaster Prevention Technologies (IISEE Net) releases the information of earthquake disaster mitigation of buildings. It accumulates technical information (seismic design code, seismic network & activities, seismic damage, and micro-zonation) from mainly developing countries.

BRI Strong Motion Observation

It provides the recent strong motion observation data from more than 70 strong motion stations throughout Japan. BRI has been conducting the strong motion observation for building structures since 1957.

Newsletter

IISEE issues a monthly newsletter. It is a useful channel of communication and gives an update on IISEE current activities. The newsletter can be also accessed from the IISEE website.



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