

Training on Seismic Isolation Design and Application for Earthquake Risk Reduction of Buildings



Topics to be covered

- Basic Principles of Seismic Isolations
- Essential Properties of An Isolation System
- Types of Isolation Units and Mechanical Properties
- Analysis Procedure of Isolated Structures
- Testing Procedure of Isolation Units
- Code Approach on Analysis and Design of Isolated Structures
- Seismic Hazard Analysis Procedure for Seismically Isolated Structures
- Ground Motion Characteristics of Isolated Structures
- Important Issues on the Installation and Construction Process
- Numerical Examples for the Design of Curved Surface Friction and Lead Rubber Isolators
- Testing and Conformity Procedures

Please contact with us for further information about the training program and registration at

info@fibsymposium2023.org

Trainers

Prof. Dr. Mustafa Erdik
Dr. Cüneyt Tüzün
Dr. Bahadır Şadan

Date: 3-4 June 2023

Venue:
Istanbul Technical
University

Course Fee: €350

The course will be conducted with a minimum enrolment of 10 participants.

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Introduction

Considering the most recent advances in earthquake engineering practice, seismic isolation is one of the most rational technology to be used in the seismic risk reduction of buildings. The earthquake performance of seismically isolated structures in major earthquakes around the world is the most convincing fact for the application of this technology.

Most internationally recognized earthquake-resistant design codes include a section on the analysis and design of seismically isolated buildings. Türkiye is one of the leading countries in the application of seismic isolation that houses more than 100 large buildings with more than 2,000 isolation units, including the largest isolated hospital and the largest hospital retrofitted with seismic isolation in the world.

The main aim of the training is to provide basic principles of seismic isolation regarding the analysis, design, testing, and installation. The content of the training shall include not only the theoretical basis and analysis details of seismic isolation but also problems and solutions related to seismic isolation for practicing engineers.

Program

03.June.2023 Saturday	Morning Session (09:00-12:00)	Basic Principles of Seismic Isolation
		Types of Isolation Units and Mechanical Properties
		Analysis Procedure of Isolated Structures
	Afternoon Session (14:00-17:00)	Seismic Hazard Analysis Procedure for Seismic Isolation
		Code Approach of Seismically Isolated Structures
		Issues on Installation and Construction Process
04.June.2023 Sunday	Morning Session (07:00-12:00)	Technical information on the Başakşehir Health Complex(*)
		Site Visit
	Afternoon Session (14:00-17:00)	Numerical Example (Curved Surface Friction Isolator)
		Numerical Example (Lead Rubber Bearings)
		Tests and Conformity Procedures



- Başakşehir Health Complex is the world's largest seismically isolated hospital with more than 1,000,000 m2 covered building area and 2,068 isolation units.