Mindluster Platform

About the course Geotechnical Analysis of Earthquake

Course Presenter : Office Hours

Geotechnical Analysis of Earthquake Phenomena course: In this course, we will learn about assessing soil and structure behavior during earthquakes. Geotechnical Analysis of Earthquake Phenomena course covers seismic impact analysis, ground motion, and mitigation strategies. Office Hours

Engineering Category's Courses

Course Lesson(34)

Lesson 1 : **CEEN 545 Lecture 1 Introduction**

Lesson 2 : **CEEN 545 Lecture 2 Significant Historical Earthquakes**

Lesson 3 : **CEEN 545 Lecture 3 Basic Seismology Structure of the Earth and Plate Tectonics**

Lesson 4 : **CEEN 545 Lesson 4 Elastic Rebound Theory Fault Types Magnitudes and Intensity**

Lesson 5 : **Supplemental Lecture Some Basics on Earthquake Statistics**

Lesson 6 : **CEEN 545 Lecture 6 Ground Motion Parameters and Signal Processing**

Lesson 7 : **CEEN 545 Supplemental Lecture SeismoSignal Software Demonstration**

Lesson 8 : **CEEN 545 Lecture 7 Attenuation Relationships**

Lesson 9 : **CEEN 545 Supplemental Lecture NGA West2 PEER Spreadsheet**

Lesson 10 : **CEEN 545 Lecture 8 Part 1 Seismic Hazard Analysis**

Lesson 11 : **CEEN 545 Lecture 8 Part 2 Seismic Hazard Analysis**

Lesson 12 : **CEEN 545 Lecture 9 Seismic Source Characterization**

Lesson 13 : **CEEN 545 Lecture 10 Local Site Effects on Earthquake Ground Motions**

Lesson 14 :
CEEN 545 Lectures 11 and 12 UPDATED Introduction to Ground Motions from Seismic Building Code

Lesson 15 : **CEEN 545 Lecture 13 Conditional Mean Spectrum**

Lesson 16 : **CEEN 545 Lecture 14 Time History Development**

Lesson 17 : **CEEN 545 Supplemental Lecture LIVE Time History Selection and Scaling**

Lesson 18 : **CEEN 545 Supplemental Lecture Spectral Matching with SeismoMatch**

Lesson 19 : **CEEN 545 Lecture 15 Introduction to Vibratory Motion**

Lesson 20 : **CEEN 545 Lecture 16 Wave Propagation Part I**

Lesson 21 : **CEEN 545 Lecture 17 Wave Propagation Part II**

Lesson 22 : **CEEN 545 Lecture 18 Dynamic Soil Properties Part I**

Lesson 23 : **CEEN 545 Lecture 19 Dynamic Soil Properties Part 2**

Lesson 24 : **CEEN 545 Lecture 20 Linear Site Response**

Lesson 25 : **CEEN 545 Lecture 21 Nonlinear Site Response**

Lesson 26 : **CEEN 545 Lecture 22 Introduction to Soil Structure Interaction**

Lesson 27 : **CEEN 545 Lecture 23 Soil Liquefaction Part 1**

Lesson 28 : **CEEN 545 Lecture 24 Soil Liquefaction Part 2**

Lesson 29 : **CEEN 545 Lecture 25 Soil Liquefaction Part 3**

Lesson 30 : **CEEN 545 Lecture 26 Seismic Compaction and Lateral Spread**

Lesson 31 : **CEEN 545 Lecture 27 Introduction to Ground Improvement**

Lesson 32 : **CEEN 545 Lecture 28 Seismic Slope Displacements**

Lesson 33 :
CEEN 545 Lecture 29 Newmark Sliding Block Models for Predicting Seismic Slope Deformations

Lesson 34 : **CEEN 545 Lecture 30 Seismic Lateral Earth Pressures**

Related courses

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business@mindluster.com