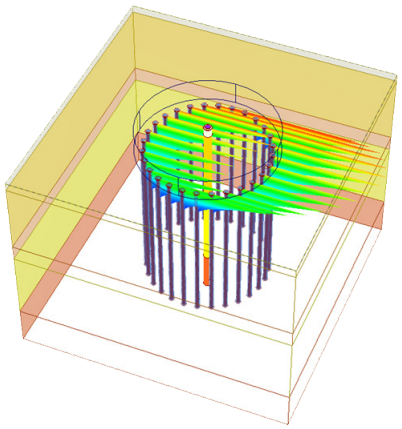

Group pile analysis in RSPile

Tools Used

RSPile
3D Pile Analysis

Slide2
2D Limit Equilibrium Analysis

Slide3
3D Limit Equilibrium Analysis

Fees

Regular: $500 USD

M+ Subscribers: $400 USD

What's Included:

- Course material package
- One month trial license of RSPile, Slide2, and Slide3
- PDH certificate

Pile Analysis

Module 1: Pile Behavior Under Lateral Load

September 29th, 2020

- Introduction to pile types and usage
- Elastic solution for piles subject to lateral loading
- P-Y curves and RSPile soil models
- Special considerations for reinforced concrete piles

Module 2: Axial Loads on Piles

October 6th, 2020

- Skin resistance and tip resistance of piles (driven and bored piles)
- Settlement of individual piles subject to axial loads
  - Elastic solutions
  - RSPile soil models, Q-Z and T-Z curves.
- Effect of pile stiffness and length

Module 3: Piles in Stability of Slopes

October 13th, 2020

- Increasing the factor of safety for slope stability with piles
- Effect of slope displacement on the pile forces
- Pile properties to be used in slope stability analysis
- Integration of RSPile into Slide2 and Slide3
- Case study by Sebastian Lobo-Guerrero (AGES Inc.)
  - Slope Stabilization with Deep Foundation Elements

Module 4: Analysis of Pile Groups

October 20th, 2020

- Distribution of loads on piles under a pile cap
- Group effects, axial and lateral stiffness multipliers
- Settlement of pile groups
- RSPile application on pile groups

Course Instructor

Ahmed Mufty, P.Eng., Ph.D.

Geomechanics Specialist, Rocscience

Dr. Ahmed Mufty has a prolonged and distinguished practical experience in construction and design of foundation piles, shoring for excavations, slope stability problems, settlement and shear strength of soft clay, site investigation and soil testing, and gypseous soils. He earned his Ph.D. from the University of Baghdad 1997 and has 10 years of academic experience, teaching Numerical Analysis and subjects of different levels in Soil Mechanics and Foundation Engineering. He joined Rocscience as a geomechanics specialist in May 2019. He worked in several countries and has many publications.

Guest Instructor, Module 3

Sebastian Lobo-Guerrero, Ph.D., P.Eng.

Geotechnical Project Manager/AAP Laboratory Manager,
American Geotechnical and Environmental Services (A.G.E.S.), Pittsburgh Headquarters

Born in Colombia, South America, Sebastian received his B.S. in Civil Engineering at Universidad de Los Andes in Bogota. He completed his M.S. and Ph.D. Degrees in Geotechnical Engineering at the University of Pittsburgh. Sebastian has more than 18 years of experience in geotechnical engineering, specializing in the design of deep/shallow foundations, earth retaining structures and landslide stabilization. He is a former Chair of the American Society of Civil Engineers (ASCE) Pittsburgh Geo Institute, a former Director of the Pittsburgh ASCE Chapter, and a current board member of the Deep Foundations Institute (DFI) Anchored Earth Retention Committee. He is also the Conference Chair for DFI45, the 2020 DFI Annual Conference. Sebastian has authored more than 70 papers and presentations included in different geotechnical journals, magazines, and conference proceedings worldwide. He is also a co-author of the geotechnical sections of State of Delaware Bridge Design Manual.