



Reza Hedayat

Committee Chair

Dr. Reza Hedayat is an Associate Professor in the Department of Civil and Environmental Engineering and the Center for Underground Construction and Tunneling at Colorado School of Mines. He received his Ph.D. in Civil Engineering from Purdue University. Dr. Hedayat's research interests focus on multi-scale studies of geomaterials, non-destructive evaluation of materials and structures, and underground construction. Dr. Hedayat is the recipient of the Early Career Award from the US Department of Energy, the Cook Ph.D. Dissertation award from the American Rock Mechanics Association, and the Manuel Rocha Medal Runner-Up Award from the International Society of Rock Mechanics (ISRM).



Jamal Rostami

Committee Co-Chair

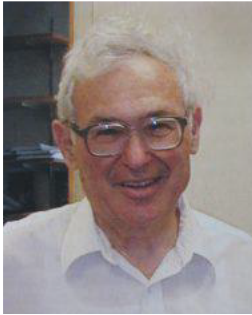
Dr. Jamal Rostami is the Hadden / Alacer Gold Endowed Chair and Director of the Excavation Engineering and Earth Mechanics Institute (EMI) and Professor of Mining Engineering at Colorado School of Mines. He has over thirty years of experience in design, management, research, and teaching in the field of mining, tunneling, and underground construction. Dr. Rostami is a registered Professional Engineering (PE) in Maryland. He has published over 95 peer reviewed journal publication and 160 conference papers and many a technical report. He is the editor in chief of the journal *Tunneling and Underground Space Technology* and a member of the editorial board of several other rock mechanics and mining journals. Dr. Rostami is also a member of the executive committee of the International Tunneling Association (ITA).



Antonio Bobet

Committee Member

Dr. Antonio Bobet is the Edgar B. and Hedwig M. Olson Professor in Civil Engineering at Purdue University. He holds a bachelor's and master's degrees in Civil Engineering from Technical University of Madrid in Spain and a Doctor of Science degree from the Massachusetts Institute of Technology (MIT). Prior to his academic career, he had eight years of experience in practice. Dr. Bobet's areas of interest include rock fracture mechanics, wave propagation through fractured media, and underground structures. He is the Co-Editor in Chief of the *Underground Space Journal* and a member of the Geotechnical Advisory Board (GAB) of the Panama Canal. Dr. Bobet has received a number of awards, including the ASCE 2011 Ralph B. Peck Award, the 2012 National Award for Significant Contributions in Science and Technology - SENACYT Panama, and the 2012 ARMA Research Award. In 2016, he was elected Fellow of the American Rock Mechanics Association, where he currently serves as Chair.



Herbert Einstein

Committee Member

Dr. Herbert H. Einstein is a Professor of Civil and Environmental Engineering at the Massachusetts Institute of Technology (MIT). His research in rock mechanics, engineering geology, and underground construction spans a wide range of studies from field measurements to laboratory experiments to numerical and analytical models. Since 1973, this research work has resulted in thirty-six Ph.D. dissertations and over three hundred authored and co-authored professional publications on the mechanical properties of soils and rocks; analysis, design, and project management of underground structures; risk analysis of landslides; and probabilistic methods in rock engineering and engineering geology. Professor Einstein teaches courses in rock mechanics, engineering geology, and underground construction at MIT. He received the 2014 Outstanding Educator Award of the Underground Construction Association of SME, the 2006 Outstanding Contributions to Rock Mechanics Award from the American Rock Mechanics Association, and the 1999 Müller Lecture Award from the International Society for Rock Mechanics, as well as numerous teaching awards at MIT. He holds degrees of Dipl. Bauing. and Sc.D. from ETH-Zürich.



Eva Ieronymaki

Committee Member

Dr. Eva Ieronymaki is an Associate Professor of Geotechnical Engineering in the Department of Civil and Environmental Engineering at Manhattan College New York. She holds B.Sc. and M.Sc. degrees in Civil Engineering from the National Technical University of Athens (NTUA) in Greece, and S.M. and Ph.D. in Geotechnical and Geoenvironmental Engineering from the Massachusetts Institute of Technology (MIT). Her research deals with numerical modeling, soil behavior, deep excavations, soil-structure interaction, and tunneling. Dr. Ieronymaki is a licensed professional engineer and a member of the Technical Chamber of Greece, an Associate Member of the American Society of Civil Engineers (ASCE), a member of the ASCE/Geo-Institute Underground Engineering and Construction committee, and a Future Leader of the American Rock Mechanics Association (ARMA). She has received several prizes and awards, including the DFI Women in Deep Foundations award.



Bo Hyun Kim

Committee Member

Dr. Bo Hyun Kim is a Senior Mining Engineer in the Spokane Mining Research Division at the National Institute for Occupational Safety and Health (NIOSH), Center for Disease Control and Prevention (CDC). Dr. Kim has more than twenty-five years of experience in consulting and research with special interests in site characterization, including on-site mobilized drilling for underground excavation and slope design, probabilistic and statistical approaches in rock engineering, robust design, and numerical modeling for rock mechanics problems. Dr. Kim is the author and co-author of more than eighty journal and conference papers and technical reports in the field of rock mechanics and geomechanics. He has given several invited lectures and workshops around the world, including the United States, Canada, and South Korea. Dr. Kim is the recipient of the CDC/ATSDR Employee Performance Awards and the CDC/ATSDR Special Act Award in Recognition of Superior Performance. He is also a NIOSH Nominee for the Outstanding Scientific Publication Awards (Charles C. Shepard Science Awards) from the CDC/ATSDR, the U.S. Department of Health and Human Services.



**Anahita
Modiriasari**

Committee Member

Dr. Anahita Modiriasari is a Geotechnical Engineer at WSP USA in New York City, where she is working on local and national infrastructure projects. Before joining WSP, she was a Post-Doctoral research assistant in geotechnical/geomechanical engineering in Resilient ExtraTerrestrial Habitats group at Purdue University. Leveraging her background in geomechanics and underground construction, she analyzed the possibility of the existence and geotechnical structural stability of lunar lava tubes so as to determine their suitability as safe and resilient permanent extraterrestrial habitats. Dr. Modiriasari earned her Ph.D. in Civil (Geotechnical) Engineering from Purdue University. Her research interests include rock and fracture mechanics, underground construction, and applied geophysics. Dr. Modiriasari's work has been published in peer-reviewed journals and international conferences, and her research on lunar lava tubes has been covered in more than 30 media outlets from around the world. She also co-authored a book on "The Role of Rock Mechanics in the 21st Century". Dr. Modiriasari received the Dr. N.G.W. Cook Ph.D. Dissertation award of the American Rock Mechanics Association (ARMA) and is a member of ARMA's Future Leaders Program.



Chi Hyun Park

Committee Member

Dr. Chi Park is a Lead Associate Geotechnical Engineer in the Cleveland Office of McMillen Jacobs Associates. He received his Ph.D. in Civil Engineering from Purdue University and has over fifteen years of experience in tunnel and geotechnical engineering for both industry and academia. He has international engineering experience on a range of projects including geotechnical designs in soils and rocks, tunnels for subways, roads, and railways, geotechnical characterization testing, and 2D/3D numerical modeling. Dr. Park's diverse background in soil and rock mechanics allows him to develop engineering solutions with consideration of all related issues: from design to permitting to construction.



Seth Pollak

Committee Member

Seth Pollak, PE, PG, is an Associate Principal with Arup. He is a member of the tunneling group based in New York and leads the rock mechanics skill. Since joining Arup in 2006, Mr. Pollak has been involved in numerous large span cavern projects, globally including Second Avenue Subway, 7 Line Extension, the Long Baseline Neutrino Facility, Brisbane Airport Link, and Hong Kong's Express Rail Link. In addition, he has been responsible for the creation of a small, multidisciplinary team, which has delivered designs for the last four deepest mine shafts in the world. He holds an M.S. in Mining and Earth Systems Engineering from Colorado School of Mines.



Rita Sousa

Committee Member

Dr. Rita Sousa is an Assistant Professor in the Department of Civil, Environmental and Ocean Engineering at the Stevens Institute of Technology in Hoboken, NJ. She received her Ph.D. in Geotechnical and Geo-Environmental Engineering from the Massachusetts Institute of Technology (MIT). Dr. Sousa's research interests focus on stochastic subsurface characterization, geotechnical risk assessment, underground urban systems, and underground construction.



Sotirios Vardakos

Committee Member

Dr. Sotirios Vardakos is a Senior Technical Principal and Senior Lead Consultant at the Geotechnical and Tunneling Group of WSP. He has a Master's Degree and Ph.D in Geotechnical Engineering from Virginia Tech and Bachelor's and Master of Engineering in Mining Engineering from the National Technical University of Athens – Greece. He has more than fifteen years of experience in underground design and construction with a strong focus in mechanized tunneling and rock engineering. He has worked for various underground engineering projects including the East Side Access and Second Avenue Phase 2 projects in New York City. Dr. Vardakos currently serves as Principal Investigator and Deputy Manager for several Federal Highway Administration research programs, including advanced geotechnical investigation methods for highway projects and US practice for large diameter TBM segmental lining design.



Gabriel Walton

Committee Member

Dr. Gabriel Walton received his Bachelors and Ph.D. degrees in Geological Engineering from Queen's University in Canada, and is currently an Associate Professor at Colorado School of Mines. In addition to his academic efforts, Dr. Walton has also worked as an independent consultant and has led applied research efforts in collaboration with tunneling and mining industry partners. Dr. Walton's research interests include numerical modeling, mine ground control, applications of remote sensing and geophysics in rock mechanics and rock engineering, rockmass characterization, and post-peak behavior of rocks and rockmasses.



Zixin Zhang

Committee Member

Dr. Zixin Zhang is a tenured Professor in Civil Engineering at Tongji University, China. He received his Ph.D. in Geotechnical Engineering from China University of Mining and Technology. Prof. Zhang's research interests focus on tunneling mechanics, underground structures and construction, and discontinuous rock mass mechanics. He has supervised twenty PhD and seventy postgraduate students at Tongji University; one of his students received the Manuel Rocha Medal Award from the International Society of Rock Mechanics (ISRM). He has authored more than 200 tunneling and geotechnical engineering publications, including the textbook "Underground Structures". Prof. Zhang is the recipient of the National Science and Technology Award.