Antonio Bobet School of Civil Engineering Purdue University

RESEARCH

- Crack Coalescence in Rocks with Multiple Flaws, Purdue Research Foundation (1998-2000)
- Optimization of Tunnel Liner Design, Purdue Research Foundation (1999)
- Design of MSE Walls for Fully Saturated Conditions, Joint Transportation Research Program (INDOT-FHWA) (1999-2003)
- Joint Transportation Research Program (INDOT-FHWA). Seismic Design of Deep Foundations (August 1999-January 2001)
- Performance Based Seismic Evaluation of Underground Structures, National Science Foundation (2000-2004)
- Fracture Coalescence in Jointed Rocks, American Chemical Society (2000-2002)
- Stabilization and Improvement of Soils with Considerable Organic Content, Joint Transportation Research Program (INDOT-FHWA) (2000-2004)
- Guidelines for Use and Types of Retaining Devices, Joint Transportation Research Program (INDOT-FHWA) (2000-2001)
- Development of a Database from the Duzce-Bolu Region in Turkey, National Science Foundation (2000-2001)
- Progressive Failure along Frictional Surfaces, Purdue Research Foundation (2001-2003)
- Use of Cement Kiln Dust (CKD) for Subgrade Modification Stabilization, Lehigh Portland Cement (2001)
- Emergency Earthquake Routes, Joint Transportation Research Program (INDOT-FHWA) (2001)
- Soil Treatment with Thixotropic Fluids: An Autoadaptive Design for Liquefaction Prevention, National Science Foundation (2001-2003)
- Emergency Earthquake Routes, Joint Transportation Research Program (INDOT-FHWA) (2001-2004)
- Supplement to Grant: Soil Treatment with Thixotropic Fluids, National Science Foundation (Research Experience for Teachers) (2001-2003)
- Detailed Planning for Research on Accelerating the Renewal of America's Highways, National Cooperative Highway Research Program (2002)
- Stiffening of Underground Structures and Lifelines for earthquake Resistant Design, Purdue Research Foundation (2003-2004)
- Stabilization and Improvement of Soils with Considerable Organic Content, Joint Transportation Research Program (INDOT-FHWA) (2003-2004)
- A Hybridized 3-Dimensional Displacement Discontinuity Method, Ministry of Education of Spain (January-September 2004)
- Slip Initiation on Frictional Fractures, American Chemical Society (2004-2006)
- Soil Treatment with Thixotropic Fluids: An Autoadaptive Design for Liquefaction Prevention, National Science Foundation (2004-2007)
- Classification of Organic Soils, Joint Transportation Research Program (INDOT-FHWA) (2005-2007)
- Post-Construction Evaluation of Lime Treated Soils, Joint Transportation Research Program (INDOT-FHWA) (2005-2007)

- Effect of Inclusions on Material Performance Investigation Through Micro-Continuum, Discontinuum and Nano-Indentation Approaches, NSF
- Liquefaction Susceptibility Mapping in the Evansville, Indiana, Region Including an Investigation of 2D Amplification and Duration Effects due to Bedrock Valley Structure, USGS

RESEARCH PROPOSALS SUBMITTED (UNDER REVIEW)

• Impact of Bio-Chemical Reactions on the Mechanical Behavior of Organic Soil, NSF