

2020 Dissertation Titles

- Semantic Modeling of Outdoor Scenes for The Creation of Virtual Environments and Simulations, Principal Investigator (P.I): Lucio Soibelman, Professor
- An Experimental, Numerical, and Analytical Study of Multiscale Physicochemical Degradation of Reinforced Concrete Structures Due to Chloride Induced Corrosion, P.I: Bora Gencturk, Associate Professor
- Intelligent Agents for Personalizing Indoor Environment and Improving Occupant Comfort in Offices, P.I: Burcin Becerik-Gerber, Professor
- Efficient Connectivity Assessment of Heterogeneous Porous Media using Graph Theory, P.I: Felipe de Barros, Associate Professor
- Stochastic Multi-Hazard Risk Analysis of Coastal Infrastructure, P.I: Patrick Lynett, Professor
- Interdependency of the Water-Oil-Nuclear Industries in the Persian/Arabian Gulf: Understanding Risk and Improving Prevention and Preparation of Disasters, P.I: Najmedin Meshkati, Professor
- Nonlinear Long Wave Amplification in the Shadow Zone of offshore Islands, P.I: Costas Synolakis, Professor

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- An Experimental, Numerical, and Analytical Study of Multiscale Physicochemical Degradation of Reinforced Concrete Structures Due to Chloride Induced Corrosion, P.I: Bora Gencturk, Associate Professor
- Long-Term Performance of Nuclear Waste Storage Systems Under Extreme Loading Conditions, P.I: Bora Gencturk, Associate Professor
- Influence of Alkali-Silica Reactivity Damage on the Shear Behavior of Reinforced Concrete Beams, P.I: Bora Gencturk, Associate Professor
- Novel Techniques for Analysis and Control of Traffic Flow in Urban Traffic Networks, P.I: Ketan Savla, Associate Professor

2018 Dissertation Titles

- Understanding Human-Building Interactions Through Perceptual Decision-Making Processes, P.I: Burcin Becerik-Gerber, Associate Professor
- Understanding Properties of Extreme Ocean Wave Runup, P.I: Patrick Lynett, Professor
- Behavioral Form Finding Using Multi-Agent Systems: A computational methodology for combining generative design with environmental and structural analysis in architectural design, P.I: David Gerber, Adjunct Assistant Professor

- Comprehensive Uncertainty Quantification in Composite Manufacturing Processes, P.I: Roger Ghanem, Professor
- Interactive and Immersive Coastal Hydrodynamics, P.I: Patrick Lynett, Professor
- Understanding the Transport Potential of Nearshore Tsunami Currents, P.I: Patrick Lynett, Professor
- A Data Driven Software Platform for Process Automation, Planning and Inspection of Contour Crafting Large-Scale Robotic 3D Printing System, P.I: Behrokh Khoshnevis, Professor
- Mixture Characterization and Real-Time Extrusion Quality Monitoring for Construction-scale 3D Printing (Contour Crafting), P.I: Behrokh Khoshnevis, Professor
- Novel Queueing Frameworks for Performance Analysis of Urban Traffic Systems, P.I: Ketan Savla, Associate Professor
- Efficient Stochastic Simulations of Hydrogeological Systems: from Model Complexity to Data Assimilation, P.I: Felipe de Barros, Assistant Professor
- Intelligent Adaptive Automation: Activity-Driven and User-Centered Building Automation, P.I: Burcin Becerik Gerber, Associate Professor

2017 Dissertation Titles

- Numerical Study of Flow Characteristics of Controlled Vortex Induced Vibrations in Cylinders, P.I: Jiin-Jen Lee, Professor
- A Novel Hybrid Probabilistic Framework for Model Validation, P.I: Erik Johnson, Professor
- Taxicab transportation: operations, equilibrium, and efficiency, P.I: Roger Ghanem, Professor
- Elements of Robustness and Optimal Control for Infrastructure Networks, P.I: Ketan Savla, Assistant Professor
- Experimental and Analytical Studies of Infrastructure Systems Condition Assessment Using Different Sensing Modality, P.I: Sami Masri, Professor
- Enabling Human-Building Communication to Promote Pro-Environmental Behavior in Office Buildings, P.I: Burcin Becerik, Associate Professor
- Next Generation Seismic Resistant Structural Elements Using High-Performance Materials, P.I: Bora Gencturk, Assistant Professor
- In-situ Quality Assessment of Scan Data for As-Built Models Using Building-specific Geometric Features, P.I: Burcin Becerik, Associate Professor
- The Role of Rigid Foundation Assumption in Two-Dimensional Soil-Structure Interaction (SSI), P.I: Vincent Lee, Professor