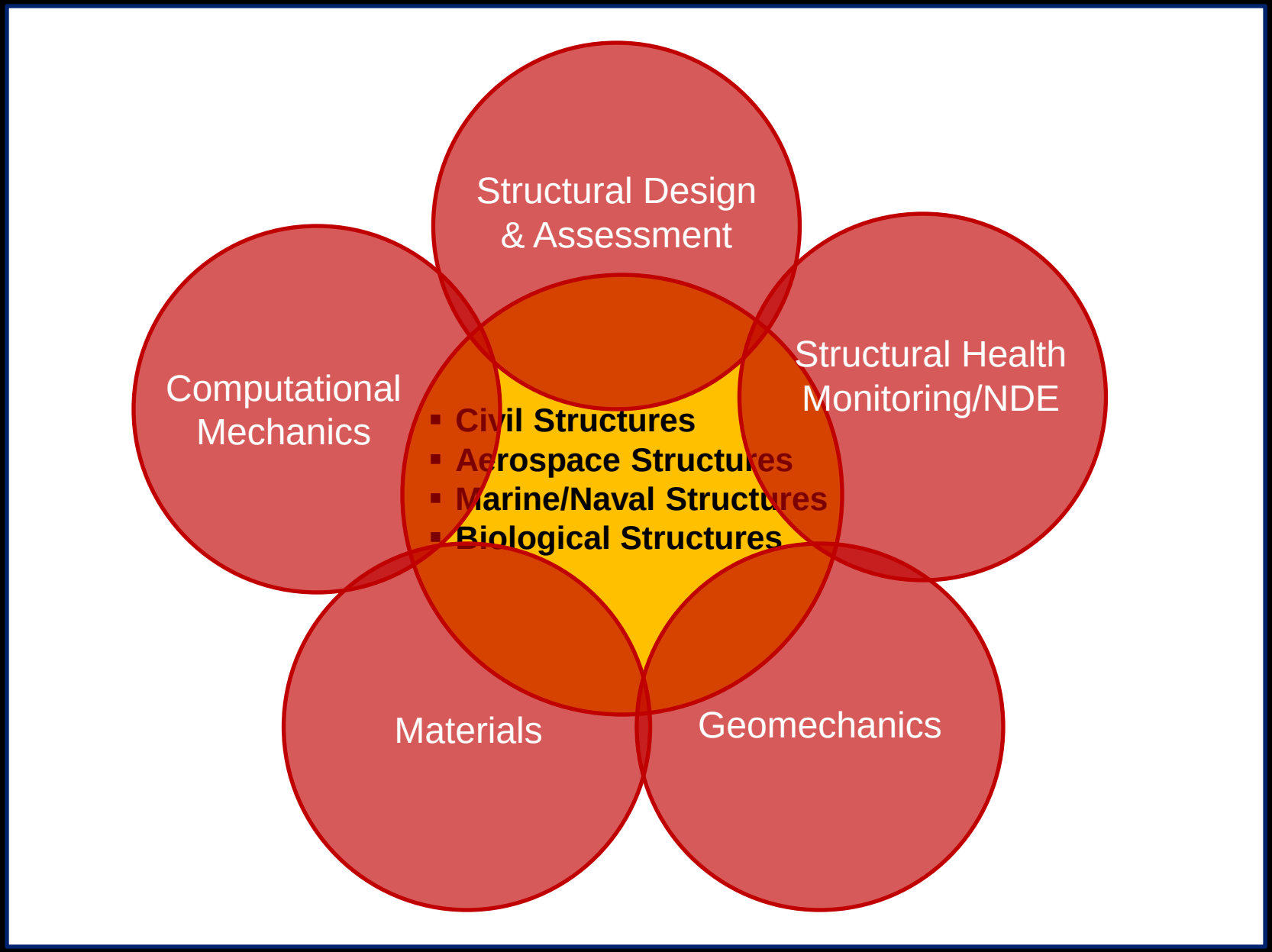
UC San Diego
Jacobs School of Engineering

Department of Structural Engineering

Overview


Structural Design & Assessment
Computational Mechanics
Structural Health Monitoring/NDE
Materials
Geomechanics
Civil Structures
Aerospace Structures
Marine/Naval Structures
Biological Structures

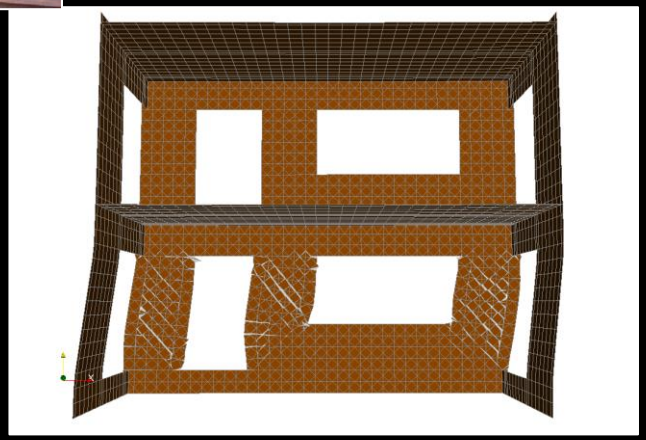
Faculty:	24
UG Students:	588
MS Students:	127
Ph.D. Students:	67

CIVIL STRUCTURES

- Earthquake Engineering
- Blast Protection
- System Identification
- Design and Computation

People

- Joel Conte
- Gil Hegemier
- Tara Hutchinson
- Enrique Luco
- Gilberto Mosqueda
- Jose Restrepo
- Benson Shing
- Chia-Ming Uang
- Lelli Van Den Einde (Engineering Education)

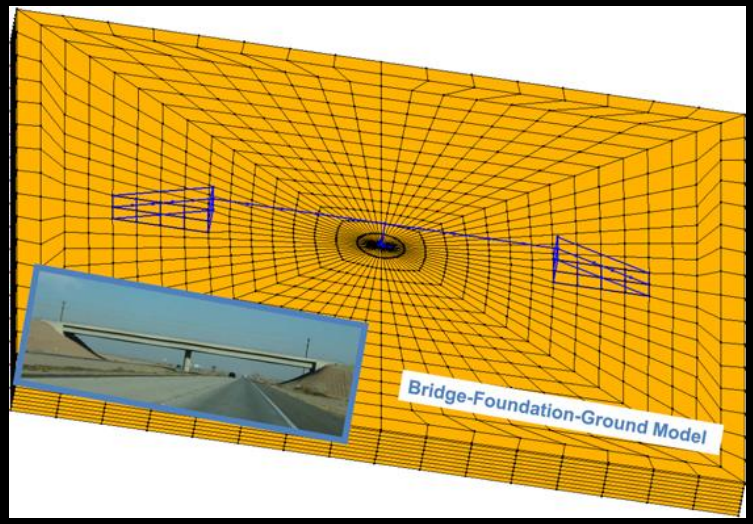


GEOMECHANICS

- Seismic Response of Soils and Foundations
- Soil-Structure Interaction
- Thermal-Hydro-Mechanical Behavior of Soils

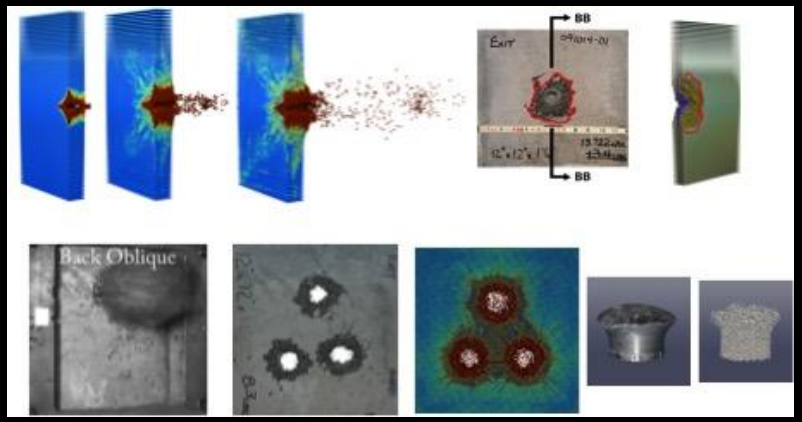
People

- Ahmed Elgamal
- Tara Hutchinson
- Enrique Luco
- John McCartney



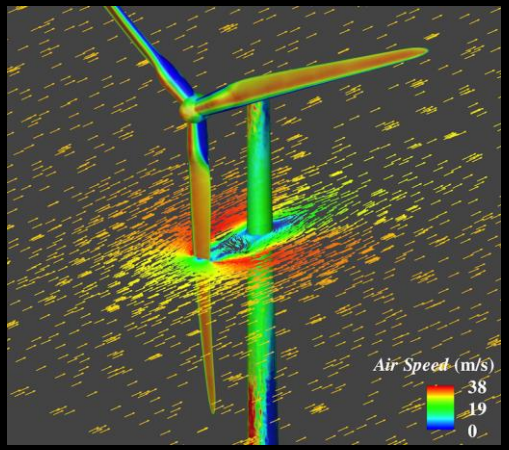
COMPUTATIONAL MECHANICS

- Large Deformation Problems
- Fluid-Structure Interaction
- Isogeometric Analysis
- Impact/Blast
- Mesh-free Finite Element Methods
- Multi-scale Materials Modeling
- Biomechanics



People

- Yuri Bazilevs
- David Benson
- Jiun-Shyan Chen
- Petr Krysl



VISUALIZATION, HERITAGE STRUCTURES

- Virtual Reality
- Distributed and Remote Visualization of Large Data Sets
- Image Data Analysis
- Cultural Heritage Diagnostics

People

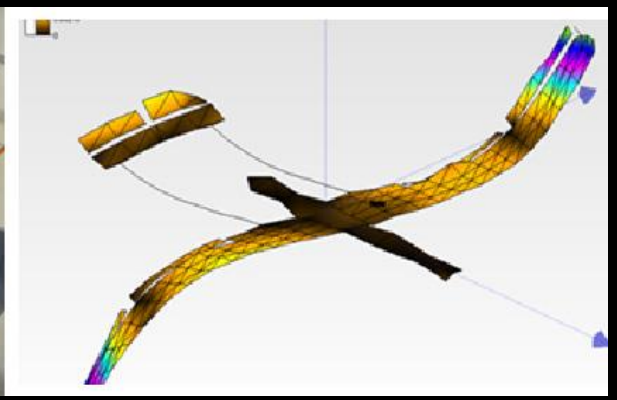
- Falko Kuester

AEROSPACE STRUCTURES

- Aviation Safety
- Impact on Aircrafts
- UAVs
- Structural Optimization
- System Identification
- Composite Materials

People

- Alicia Kim
- Hyonny Kim
- John Kosmatka

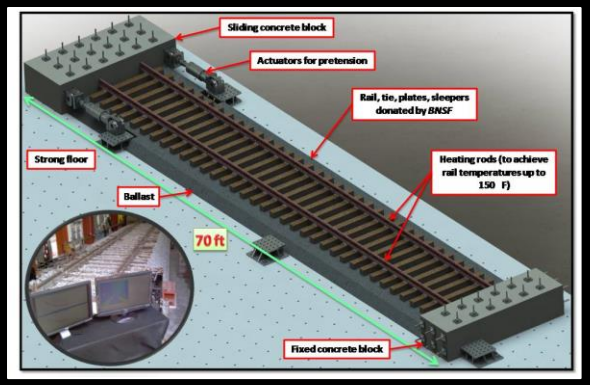


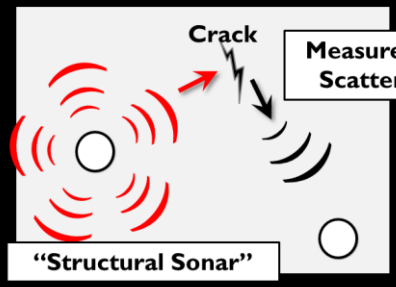
STRUCTURAL HEALTH MONITORING/ NDE

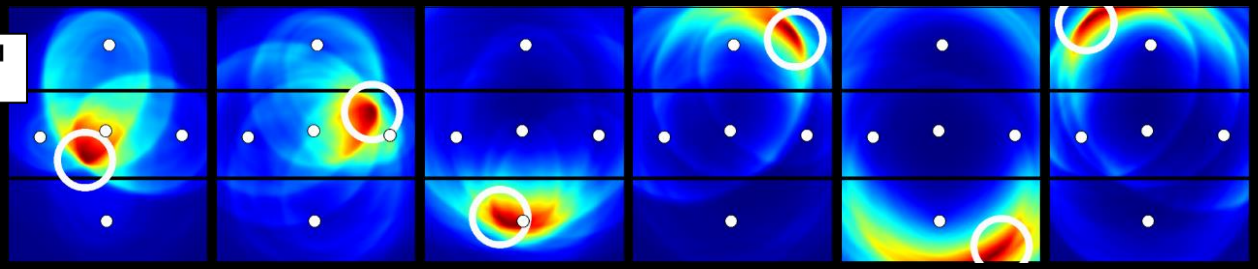
- Damage Detection
- NDE
- Sensors
- Prognosis

People

- Joel Conte
- Francesco Lanza di Scalea
- Kenneth Loh
- Michael Todd

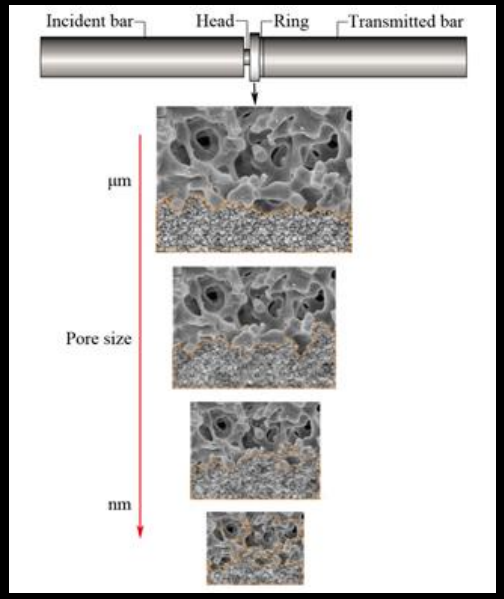


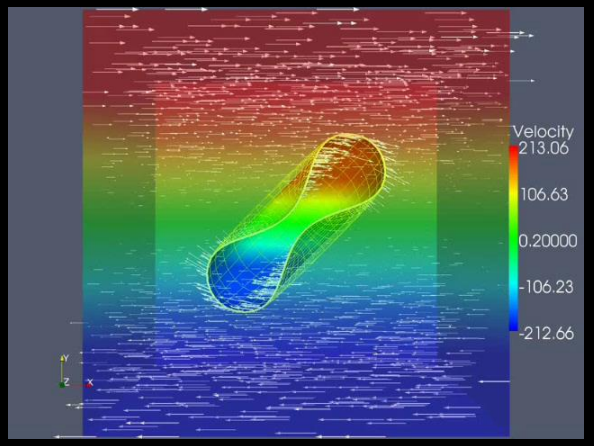




BIOLOGICAL STRUCTURES, BIOMIMETICS, MATERIALS

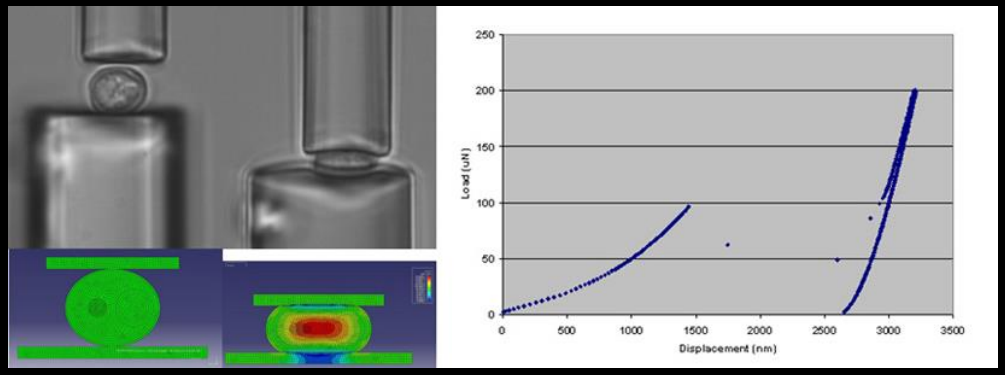
- Nano Materials
- Cell Structures
- Porous Materials





People

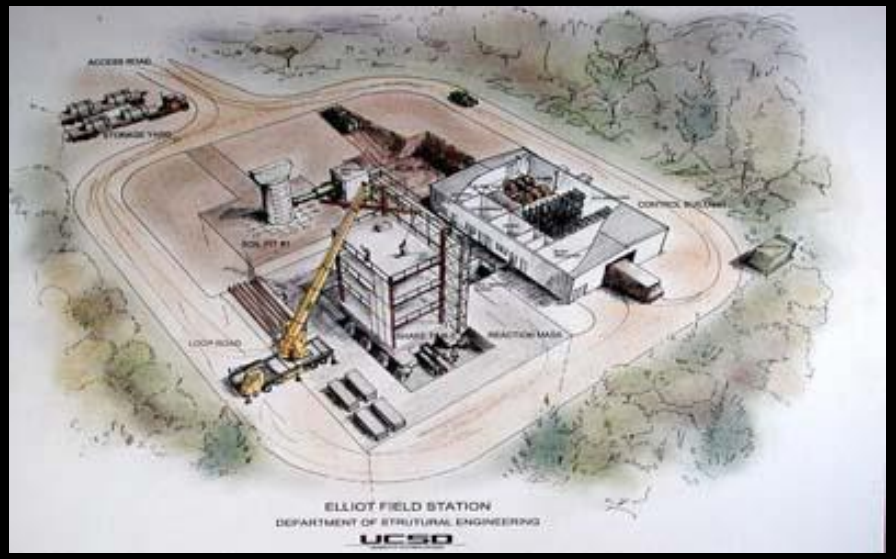
- Robert Asaro
- Yu Qiao
- Qiang Zhu



SME Building

Charles Lee Powell Labs for Large-Scale Testing

General Campus



Englekirk Structural Engineering Center

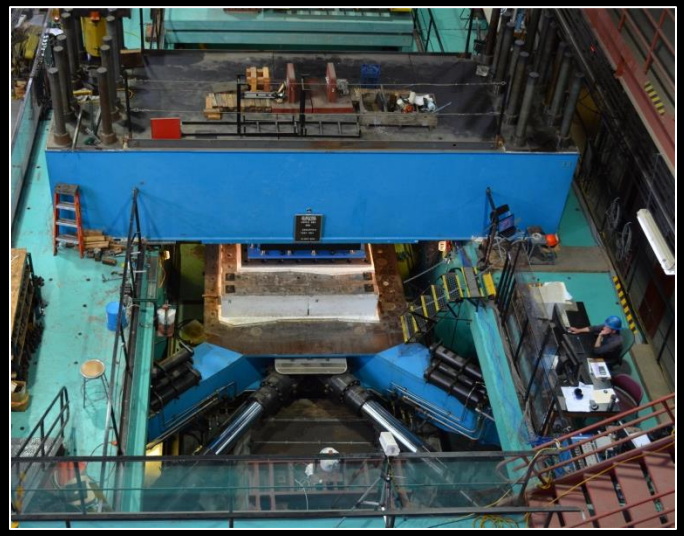
SME Building

- Aerospace Structures Lab
- Advanced Composites Labs
- Aviation Safety Lab
- Computation Lab
- Geomechanics Labs
- Materials Research Labs
- Structural Health Monitoring & NDE Labs
- Visualization Lab

Structural Systems Lab

Composite Structures Lab

Structural Components Lab



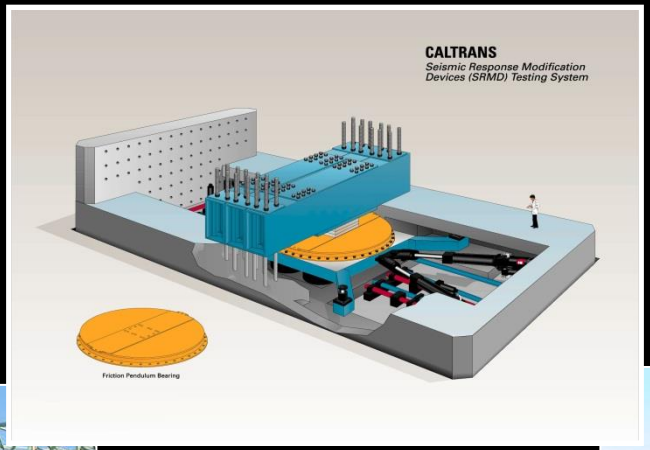
SRMD (Structural Response Modification Device) Testing Facility

SRMD TESTING FACILITY

Rubber Isolator

Base-Isolation Devices

Friction Pendulum Isolator



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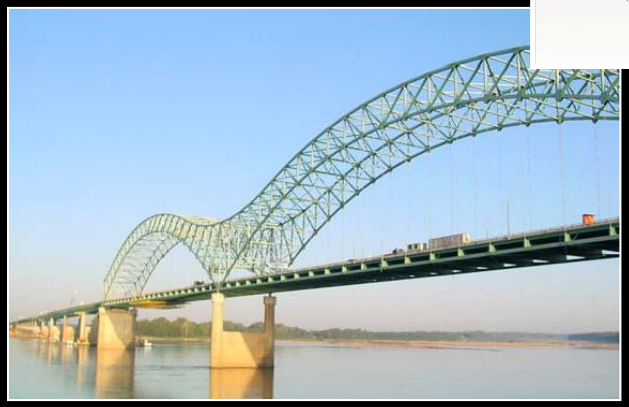
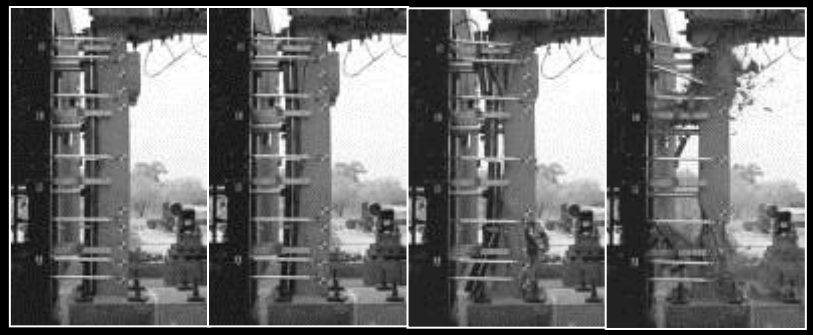


Benicia-Martinez

ENGLEKIRK STRUCTURAL ENGINEERING CENTER

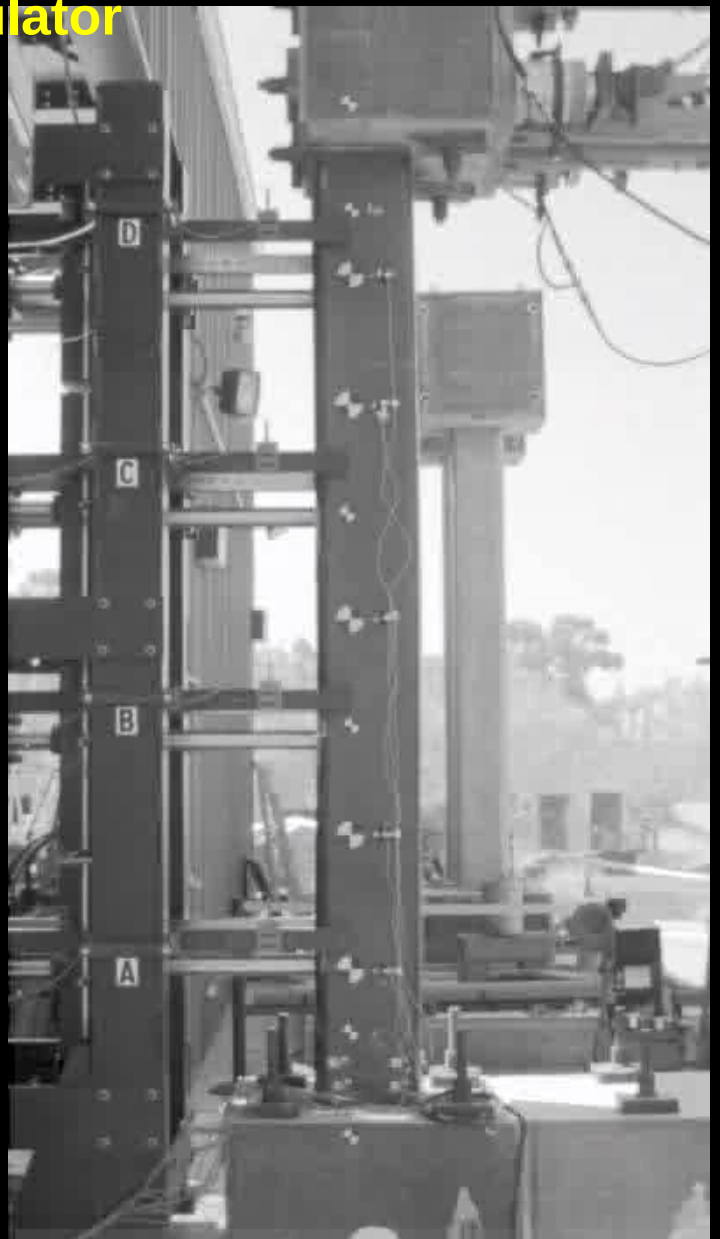
Large High Performance Outdoor Shake Table (LHPOST)

Blast and Impact Simulator



Soil-Structure Interaction (SSI) Testing Facility

Blast Simulator



Thank you!