

# Welcome

## Seminar Series of the Department of Computer Science Electrical Engineering Presents

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### Seismic Modeling of 4 Story Steel Moment Frame Building with SAP 2000

February 15, 2008. Time 2:00-3:00PM. FH 557.



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#### **Abstract**

The world's largest earthquake simulator in Japan was recently utilized to test a full scale 4 story steel moment frame building, as a part of an intensive research effort in the seismic behavior of steel buildings in Japan. An international blind prediction contest was carried out in order to promote the development of the numerical models for the prediction seismic response, the prediction of collapse behavior and the development of efficient modeling techniques for steel frame buildings. The goal is to use numerical simulations in the future to improve the seismic performance of buildings. The authors participated in the three dimensional (3D) modeling category for researchers and were required to predict various responses in two stages. The presentation will focus on the experimental part, the numerical modeling part and finally results from the experimentally measured and predicted categories will be compared.

**Bio:** Dr. Ganesh Thiagarajan finished his Ph.D in computational mechanics with a computer science minor at Louisiana State University - Civil Engineering Department in 1996. Since then he has been an instructor at LSU, a research associate at National Center for Supercomputing Alliance (NCSA) at the University of Illinois at Urbana Champaign. He joined UMKC in 2002 as an Assistant Professor and has devoted his time to developing and teaching courses in Structural Engineering design and Structural Mechanics. His research interests are in areas of Numerical Modeling of Materials and Structures, Finite element analysis of human knee and Nanomechanical analysis of biological materials and biomaterials.