

INTRODUCTION

Genda Chen, Ph.D., P.E.
Associate Professor of Civil Engineering
University of Missouri-Rolla (UMR)
gchen@umr.edu

Geotechnical and Bridge Seismic Design Workshop
New Madrid Seismic Zone Experience

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UMR EARTHQUAKE HAZARDS MITIGATION RESEARCH PROGRAM FOR HIGHWAY SYSTEMS

February 2002 – February 2005

Principal Investigator: Dr. Neil Anderson
Technical Director: Dr. Genda Chen, P.E.
Project Manager (FHWA): Dr. Phillip W. Yen, P.E.
Project Coordinator (MoDOT): Thomas Fennessey, P.E.



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COLLABORATION



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PROJECT FUNDING

- **Total funding: \$1,432,758**
 - \$800,000 - Federal Highway Administration (Cooperative Agreement DTFH61-02-X-00009)
 - \$197,271 - Missouri Department of Transportation (in-kind plus cash)
 - \$110,000 - Alaska Department of Transportation
 - \$4,000 - Missouri Department of Natural Resources (in kind)
 - \$70,035 - University Transportation Center
 - \$251,452 - University of Missouri-Rolla (in-kind)



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LIST OF PARTICIPANTS

- **UMR Faculty:**
 - o Dr. Neil Anderson (Principal Investigator)
 - o Dr. Genda Chen (Technical Director)
 - o Dr. David Enke
 - o Dr. Ronaldo Luna
 - o Dr. Shamsheer Prakash
 - o Dr. David Rogers
 - o Dr. Pedro Silva
 - o Dr. Gary Spring
 - o Dr. Richard Stephenson
 - o Dr. Reza Zoughi
- **MODOT:**
 - o Tom Fennessey
 - o Paul Porter/Bryan Hartnagel
 - o Carlis Callahan
- **MODNR:**
 - o David Hoffmann
- **FHWA Regional Office**
 - o Peter Clogston
- **St. Louis University:**
 - o Dr. Robert Herrmann
- **University of Nevada at Reno**
 - o Dr. Yuehua Zeng
- **Russian Scientist:**
 - o Dr. Alexi A. Malovichko
- **Postdoctoral Research Associate:**
 - o Dr. Mostafa Engebawy
 - o Dr. Siasi Kociu
- **UMR Graduate Students:**
 - o Don Deardorff/ Bill Lawrence /Chakkaphan Tirasirichai/Sripathy Kitta
 - o Xiaofei Ying/Wenjian Wang
 - o Wei Zheng/Wanxing Liu
 - o Nick Ereckson/ Xi Huang



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OVERALL OBJECTIVES

- To improve earthquake resistance and mitigate earthquake damage to highway transportation networks, including loss of bridges and highways, by developing new seismic design and assessment methodologies, by improving seismic retrofitting measures, and by exchanging and transferring new technologies.



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