Andre Filiatrault, Ph.D, Eng.

Professor of Structural Engineering
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Andre Filiatrault is a professor in the Department of Civil, Structural and Environmental Engineering at the State University of New York at Buffalo in Buffalo, NY. He received his master's (1985) and Ph.D. (1988) degrees in civil engineering from the University of British Columbia. His research over the last 26 years has focused on the seismic testing, analysis and design of civil engineering structures. His current research involves the seismic design and analysis of wood structures, seismic performance of nonstructural building components, seismic performance of substation electrical equipment, earthquake response and rehabilitation of critical lifelines, and seismic design of propped rocking cantilever concrete walls. The professional achievements resulting from his research and teaching activities include four textbooks, more than 250 peer-reviewed scientific publications, the 1990 Sir Casimir Stanislaus Gzowski Medal from the Canadian Society for Civil Engineering, the 2002 Moisseiff Award from the American Society of Civil Engineers and the 2008 Outstanding Researcher/Scholar Award from the Research Foundation of the State University of New York.

A special thank-you is extended to our sponsor, and the students, faculty, and staff who were involved in the preparation of the Fourteenth Structural Engineering and Mechanics Symposium

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Fourteenth Structural Engineering & Mechanics Symposium

Complete loss of suspended ceilings and light fixtures in the 1994 Northridge Earthquake (FEMA 74, 1994)

Friday March 7h, 2014

Fourteenth Structural Engineering & Mechanics Symposium

Friday, March 7th, 2014, 8:45 am-5:30 pm, 136 MRC , Centennial Campus

Breakfast: 8:45– 9:00 am, 136 MRC

Introduction: 9:00 - 9:05 am, 136 MRC
Payel Chatterjee and Nehemiah Mabry Co-Chairs

Session 1: 9:05 - 10:25 pm, 136 MRC
Chairs: Hao Hu and Landon Talley

9:05 - 9:25: A New Efficient Algorithm for Subsurface Imaging, Mehran Eslaminia (Dr. Guddati)
9:25 - 9:45: Constitutive Modeling of Haynes 230 for High Temperture Creep-Fatigue Interactions, Paul Barrett (Dr. Hassan)
9:45 - 10:05: Estimating the embedded length of pile foundation using a Flexural Wave model, Vivek Samu (Dr. Guddati)
10:05 - 10:25: Experimental and Numerical Investigation of the Effect of Damage on Unsaturated Moisture Flow in Concrete, Farnam Ghasemzadehsomarin (Dr. Pour-Ghaz)

10:25 - 10:40: Break

Session 2: 10:40 am - 12:00 pm, 136 MRC
Chairs: Milad Hallaji and Paul Barrett

10:40 - 11:00: Possible Applications of Grouted Shear Stud Connections for Steel Moment Frames, Emrah Tasdemir (Dr. Koawlsky)
11:00 - 11:20: Low-Cycle Fatigue Failure Responses of Short and Long Radius Elbows, Mathew Fenton (Dr. Hassan)
11:20 - 11:40: Design, Calibration, and Setup of an SSI Testing Facility to Accommodate Variable Soil Stiffness Through Prestressing, Landon Talley (Dr. Kowalsky)
11:40 - 12:00: Monotonic Experimentation of Threaded Piping, Matthew Nifong (Dr. Vernon Matzen)

Lunch: 12:00 pm, 246 MRC

Poster Session: 12:00 - 1:15 pm, 246 MRC
Posters by Geotech, Mechanics and Materials Students

Keynote Presentation:

Seismic Design of Nonstructural Building Elements: Why, How and Who?

Dr. Andre Filiatrault
1:15 - 2:15 p.m., 136 MRC
Introduced by: Dr. Mervin Kowalsky

Session 3: 2:15 - 3:35 pm, 136 MRC
Chairs: Vivek Samu and Tiancog Liu

2:15 - 2:35: Seismic Analysis of Moment Resisting Connections with Residual Stresses, Shahriyar Quayyum (Dr. Hassan)
2:35 - 2:55: Scaling of Earthquake Ground Motions for Fragility Analysis of Piping Systems, Tiancog Liu (Dr. Gupta)
2:55 - 3:15: Equivalent damping for short period SDOF system in Direct Displacement-Based Design, Easa Khan (Dr. Kowalsky)
3:15 - 3:35: Vibration-based damage detection of scour in coastal bridges, Hao Hu (Dr. Seracino)
3:35 - 3:55: Seismic performance enhancement of Welded Unreforced Flange-Bolted Web Moment Connections, Machel Morrson (Dr. Hassan)

3:55 - 4:05: Break

Session 4: 4:05 - 5:25 pm, 136 MRC
Chairs: Easa Khan and Matthew Nifong

4:05 - 4:25: Freeze/Thaw Durability and Thermal Expansion of Precast Block Walls, Pavan Chigullapally (Dr. Lucier)
4:25 - 4:45: Synergistic Effect of Mechanical Loading and Environmental Conditions on the Degradation of Pultruded GFRP, Bryant Miller (Dr. Pour-Ghaz)
4:45 - 5:05: Development of Rational Design Methodologies for Dapped Ends of Prestressed Concrete Thin-Stemmed Members, Amir Botros (Dr. Rizkalla)
5:05 - 5:25: Hoop Strain variation in FRP wraps, Baishali Das (Dr. Seracino)

Closing Remarks, Best Presentation & Best Poster Awards
5:25 pm, 136 MRC
Closing Remarks by: Dr. Vernon Matzen