Brief Resume of Franz N. Rad, PhD, PE, SE, FASCE, FACI

Name and University Address:

Franz N. Rad, Professor of Civil and Environmental Engineering
Arthur M. James Professor of Structural Engineering
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Education:

B.S., Civil Engineering, University of Texas at Austin, 1968
M.S., Civil Engineering, University of Texas at Austin, 1969
Ph.D., Civil Engineering, University of Texas at Austin, 1973

Experience:

Academic:
Assistant Professor, 1971-1975; Associate Professor, 1975-1980; Professor, 1980-present
Department Chair, 1979-2002; Arthur M. James Professor of Structural Engineering, 2004-Present

Research:
Teaching, laboratory research, and consulting in graduate school, Austin, Texas, 1968-71
Principal Investigator, NSF sponsored Soil Mechanics Lab development, 1973-75
Principal Investigator, NSF sponsored research, Behavior of Unbraced Reinforced Concrete Frames under Lateral Loads, 1975-1977
Co-principal Investigator, U.S. Dept of Interior sponsored research, Ground Fault Current Propagation in Soils, 1977-1978
Principal Investigator, PCI sponsored research, Shear Capacity of Machine-Cast Prestressed Concrete Slabs, 1988 – 1989
Principal Investigator, Metro/DOGAMI sponsored research, Earthquake Damage Assessment of Urban Areas, 1993 – 2001
Principal Investigator, Oregon Masonry Institute sponsored research, Strength of Grouted Anchors in Masonry Walls, 1997-99

Principal Investigator, Contech sponsored research, Behavior of Hollow Clay Tile Walls Retrofitted with Fiber Reinforced Polymer (FRP) Composites, 1997-98
Principal Investigator, Oregon State Univ sponsored research, Wind and Seismic Tiedowns on Manufactured Housing, 1998
Principal Investigator, Morse Bros. sponsored research, Grouted Conduit Connections under Cyclic Axial Loading, 1999
Co-principal Investigator, NSF sponsored research, RescueNet: Embedded Sensors to Rescue Survivors, 2003-2008
Principal Investigator/Research Fellow, PCI sponsored research, Development of Reinforcement in Grouted Conduit Connections, 2006-2008
Principal Investigator, Reiersgaard sponsored research, Behavior of Cardboard Pallets under Compression and Flexural Loading, 2009

Specialization:
Reinforced Concrete Design, Prestressed Concrete Design, Timber Design, Forensic Engineering, Retrofitting Existing Structures, Experimental Investigation

Consulting:
Project Engineer, Mackenzie Engineering, Inc., Portland, summers 1972-84; technical consultant to various engineering firms and government agencies, including; City of Portland, Bureau of Buildings, C. G. Peterson, Consulting Engineers, Moffit, Nichol, and Bonney, US Geological Survey, R. Brown Consulting Group, Construction Research, Inc. Investigated several structural failures and non-performance issues, mostly related to concrete materials and reinforced concrete structures.

Professional Registration:

State of Oregon, Structural Engineering 1975, Civil Engineering 1976

Publications:

Over 75 technical publications in engineering Journals, conference proceedings, and reports.

Sample publications:

Rad, F.N., James, A.M., "Learning from the Past Experiences of Practicing Engineers" Proceedings of ASCE 4th Forensic Congress, Cleveland, OH, Oct 5-9, 2006, pp. 12-16.

Rad, F.N., James, A.M., "Forensic Engineering in Structural Engineering Curriculum," Third International Structural Engineering and Construction Conference, Shunan, Japan, Sep 20-23, 2005.

Rad, F.N. and Imper, R.R., "An Experimental Study on the Strength of Grouted Conduit Connections under Cyclic Axial Loading," Proceedings of the First International Structural Engineering and Construction Conference, Honolulu, January 24-27, 2001, pp. 789-792.

Hasenberg, C., and Rad, F.N., "Lessons Learned in a Level-Two Analysis for Buildings and Lifelines in the Portland, Oregon, Metropolitan Region," Proceedings of the Fifth U.S. Conference on Lifeline Earthquake Engineering, Seattle, August 12-14, 1999.

McCormack, T. C., and Rad, F.N., "Fragility Curves for Estimating Earthquake Losses Based on Rapid Visual Screening of Buildings," Proceedings of the Annual Conference of the Canadian Society for Civil Engineering, Regina, Saskatchewan, June 1999.

Rad, F.N., "Strength of Grouted Anchors in Masonry Walls," Proceedings of the 8th North American Masonry Conference, CD ROM, The Masonry Society, Austin, TX, June 1999.

Hasenberg, C., and Rad, F.N. "Creating Soil Hazard Input Maps for the Portland Metropolitan Region," paper presented at the Association of Engineering Geologists Symposium, Seattle, WA, June 1998.

Rad, F.N., "Teaching Theory Through Physical Testing," Proceedings of the 12th World Conference on Engineering Mechanics, CD ROM, ASCE, La Jolla, CA, May 1998.

McCormack, T., and Rad, F.N., "An Earthquake Loss Estimation Methodology for Buildings Based on ATC-13 and ATC-21," The Professional Journal of the Earthquake Engineering Institute, EERI, November 1997, pp. 605-621.

Scientific and Professional Societies:

National Society of Professional Engineers (NSPE), American Society for Engineering Education (ASEE), American Society of Civil Engineers (ASCE), American Concrete Institute (ACI), Prestressed Concrete Institute (PCI), Post-Tensioning Institute, Structural Engineers Association of Oregon (SEAO), Professional Engineers of Oregon (PEO), Tau Beta Pi, Chi Epsilon,Phi Kappa Phi, Sigma Xi

Professional Activities:

Technical Committee Appointments:
ASCE-ACI Committee on Inelastic Behavior of Reinforced Concrete Structures, 1977-1982
ASCE-ACI Committee on Columns, 1985-present
ASCE - 1997 Structures Congress Steering Committee, 1995-1997
Steering Committee, EERI Regional Conference, Portland, OR, 1994-95
Chair, Structural Engineers Association of Oregon Seismic Committee, 1997-00

Professional Offices Held by Elections:
Department Heads Council Executive Committee, ASCE, 1996-1999, 1999-2003
Editor, Dept Heads Council Executive Committee, ASCE, 1997-2002
Member, Board of Directors, ACI-Oregon Chapter, 1984-1989
Vice President, ACI-Oregon Chapter, 1984-1987
President, ACI-Oregon Chapter, 1987-1989
Member, Board of Directors, SEAO, 1982-1987
President, SEAO, 1985-1986

Publication Reviewer/Referee for:
Harper and Row, ASCE Structural Division, ACI Journal, ASEE Engineering Education, EERI

Honors and Awards:

Full Academic Scholarship, Southwestern University, 1962-1964
Dean's Fellowship, University of Texas, 1968-1969
Winner of "ASEE Western Electric Fund Award for Excellence in Teaching", 1979
Listed in Who's Who in the West, 1980-1981
Fellow, American Society of Civil Engineers, 1989
Fellow, American Concrete Institute, 1991
Recipient, “Excellence in Concrete Award”, ACI Oregon Chapter, 1992
Recipient, Centennial Certificate, American Society for Engineering Education, 1993
Recipient, “The Engineer of the Year Award”, American Society of Civil Engrs, Oregon Section, 2002
Recipient of Endowed Professorship “The Arthur M. James Professor of Structural Engineering”, Maseeh College of Engineering and Computer Science, Portland State University, 2003
Life Member, Structural Engineers Association of Oregon, 2006