

Research Grants

Research and Other Competitive Grants

1	Active Control of Civil Engineering Structures Under Earthquake Excitations, (w/ T.T. Soong and J.N. Yang (GWU)), Grant [1]	1/84-1/86	NSF-ECE-8311756	\$327,802
2	Power Circuit Breaker Diagnostics (w/D. Benenson, T.T. Soong, A. Soom, Y. Lee and V. Demjanenko); EPRI (#2747-1) and NYSERDA (1859-EEED-TD-86)	11/85-11/87	EPRI & NYSERDA	\$260,000
3	Seismic Safety of Liquid Storage Plastic Tanks (w/Y.J. Park, & R.L. Ketter; including \$33,500 materials and consulting from sponsor) ¹	3/87-1/88	NALGE/	\$63,687
4	Seismic Performance and Risk, (w/Y.J. Park; in cooperation with Cornell Univ., Lehigh Univ., Rice Univ.) ¹	9/86-9/91	NCEER/NSF/NYS	\$690,748
5	Static and Dynamic Response of Steel Building Frames with Semi-Rigid Connections (in cooperation with Univ. of South Carolina) ¹	9/87-9/89	NCEER/NSF/NYS	\$60,000
6	Active Seismic Control of - Active Bracing System (w/T.T. Soong; including contributions of MTS Corp., MN, USA (\$72,539.00) and Takenaka Company and Kayaba Ind., Japan (\$352,000.00)) ²	9/87-9/89	NCEER/NSF/NYS	\$568,930
7	Passive Control of Building Structures I	9/87-9/89	NCEER/NSF/NYS	\$100,000
8	Power Circuit Breaker Diagnostics (w/D. Benenson, A. Soom, Y. Lee and V. Demjanenko)	4/88-4/90	EPRI/ NYSERDA	\$200,000
9	Seismic Isolation of Bridge Structures (w/ M. Constantinou; including \$25,000 materials and consulting) ¹	1/88-1/89	WB & ACME	\$400,002
10	Seismic Qualification of 500 KV DC Capacitor Bank I and Computer Bank CCVT-230KV I	4/88-9/89	WESTING-HOUSE	\$9,200
11	Active Control of Structures (w/T.T. Soong; incl. contributions from MTS Corp., MN, USA (\$137,309.00) and Takenaka Co. and Kayaba Ind., Japan (\$2,700,000)) ²	9/89-9/93	NCEER/NSF/NYS	\$3,097,302
12	Seismic Base Isolated Structures Testing and Modeling, (w/M.C. Constantinou & Nagarajaiah, Contributions Watson Bowman & ACME (\$29,000)) ^[2]	9/89-9/90	NCEER/NSF/NYS	\$106,000
13	Inelastic Structures - Modeling and Analysis of R/C Buildings , (w/S.K. Kunnath) ¹	9/90-9/95	NCEER/NSF/NYS	\$376,787
14	Infilled Frames, (w/J.B. Mander & S.P. Pravel) ¹	9/90-9/96	NCEER/NSF/NYS	\$185,000
15	Seismic Evaluation of the Tishman Building, Buffalo, N.Y. (w/S.K. Kunnath) ¹	9/90-5/91	NY-NF/ National Fuel	\$16,000
16	Seismic Performance of Bridge Structures - Analytical Modeling, (w/S.K. Kunnath) ¹	10/90-5/91	NIST	\$23,000
17	Development of 3-D Basis computer program for Base Isolated Structures I Demonstration Tower for Active Control in Akron, Ohio ¹	9/91-8/92	CIRD	\$23,800
18	Energy Dissipation Systems, Hybrid Control Systems, and Elastomeric Isolation Systems, ¹	9/92-8/96	NCEER/NSF/NYS	\$242,250
19	Retrofit of R/C Structures Using Conventional and Complementary Damping ¹ (contribution \$35,000 Sumitomo Co., Japan & \$16,500 Tekton Co., US)	9/93-9/94	NCEER/NSF/NYS	\$252,252
20	Analytical Modeling of Bridge Structures, (w/M.C. Constantinou) ¹	9/93-9/95	NCEER/NSF/NYS	\$133,000
21	Seismic Qualific. of Thermalock TM Block Walls, ¹	9/93-9/94	THERMALOK / DOE	\$16,400
22	US/PRC Cooperative Research Program in Structural Control, (w/T.T. Soong PI/PD)	10/94-9/97	NSF-CMS-941234	\$457,000
23	Seismic Strengthening of a Navy Building with Viscoelastic Dampers, (Fac. Assoc.w/T.T. Soong, PI/PD)	10/94-3/98	US / NAVY	\$1,419,300
24	University Industry Research Program - Seismic Design of Thermalock TM Block Walls, ¹	10/94-10/95	NYSERDA	\$49,890
25	"Analytical Modeling of Bridge Structures, (PI/PD w/M.C. Constantinou) ¹	9/93-9/97	NCEER/NSF/NYS	\$222,400

26	Parametric evaluation of differential ground motions in bridge structures (PI/PD w/I.Buckle)1	4/95-3/97	NCEER/FHWA	\$128,000
27	Development of Nonlinear Static procedure for Rapid Analysis and Design of Highway Bridges1 (PI/PD)	11/97-9/98	NCEER/FHWA	\$95.00
28	Fragility Evaluation and Calibration1 (PI/PD)	11/97-10/00	MCEER/NSF/NYS	\$186.00
29	Networking of Computational and Experimental Facilities1	11/98-10/00	MCEER/NSF/NYS	\$86.00
30	Equipment Grant for Video-Conferencing System1	11/98-10/99	MCEER/NSF/NYS	\$15.00
31	Development of Analytical Tools for Analysis1	11/99-10/00	MCEER/NSF/NYS	\$26.00
32	Networking of Computational and Experimental Facilities1	11/00-10/01	MCEER/NSF/NYS	\$29,729
33	Development of Analytical Tools for Analysis1	11/00-10/01	MCEER/NSF/NYS	\$84,610
34	Seismic Fragility and retrofit of non-ductile r/c structures2 (w/Tsopelas PI/PD)	06/01-5/02	NSF-CMS-0085261	\$74,999
35	Large Scale High Performance Testing Facility1 PI/PD w/others	01/01-09/04	NSF-CMS-0086611	\$4,379,865
36	Versatile High Performance Shaking Tables1 PI/PD w/others	01/01-09/04	NSF-CMS-0086612	\$6,160,685
37	US-Japan Facilities Evaluation (w/ Theva PI/PD)	04/01-09/01	NSF-CMS-0120634	\$36,800
38	Localized velocity-based energy dissipation systems - Advanced technologies and data for validation of integration methodologies (PI/PD)	10/02-09/03	MCEER/NSF/NYS	\$79,406
39	Networking of Computational and Experimental Facilities1 Coordination and Networking Infrastructure	10/02-09/03	MCEER/NSF/NYS	\$54,592
40	Seismic Retrofit of Lifeline Systems: Shaking Table Tests for Fragility of Electric Transformers	10/02-9/03	MCEER/NSF/NYS	\$44,666
41	Definition and quantification of resilience – A center-wide system-integrated resilience measures	10/02-9/05	MCEER/NSF/NYS	\$45,000
42	Networking of Experimental Facility – NEES Supplemental Grant1	06/03-9/05	NSF-CMS-0086612	\$458,540
43	Advanced Data Acquisition – NEES Supplemental Grant1	06/03-9/04	NSF-CMS-0086612	\$118,000
44	Behavior of Braced Steel Frames with Innovative Bracing Schemes – Leon (GIT), /Reinhorn-PI / Bruneau (UB), Moehle (Berkeley), Shing (Colorado),	10/03-9/04	NSF-CMS-0324277	\$177,681
45	NEES Consortium Operation: FY 2005-2014 (w Buckle (PI/PD), R, Leon, C Pancake, T, Anagnos, A Reinhorn Co-PIs) - in behalf of NEESInc	10/04-9/09	NSF-CMS-0402490	\$106,848,913
46	Seismic Global Retrofit of Structures by Strength Reduction and Damping Enhancement (PI/PD)	10/04-9/07	MCEER/NSF/NYS	\$233,500
47	Networking of Experimental and Computational Facilities (PI/PD)	10/04-9/07	MCEER/NSF/NYS	\$154,000
48	Seismic Retrofit of Lifelines: Fragility of High Voltage Electrical Equipment: Bushings and Disconnect Switches (PI/PD)	10/04-9/07	MCEER/NSF/ EPRI	\$133,000
49	Quantification of Resilience Dimensions for Specific Facilities -(w/Bruneau PI/PD, Tierney, Shinozuka, Chang, Rose, Davidson, Filiatrault)	10/04-9/07	MCEER/NSF/NYS	\$41,650
50	Maintenance, Operations, and Management of NEES services of Structural Engineering and Earthquake Simulation Laboratory (Reinhorn PI/PD, w Bruneau, Constantinou, Whittaker and Filiatrault)	10/04-9/09	NSF/NYS (NEESinc)	\$7,373,625
51	Hamiltonian Methods for Dynamic Analysis of Detriorrating Structuresin Multi-Hazard Environments (w/Dargush PI/PD)	10/05-9/07	MCEER/NSF/NYS	\$110,000
52	Analysis of Collapse of Structures (PI/PD w/G Dargush, M Sivaselvan, O. Lavan) incl \$90,000 at U Colorado	10/05-9/07	CUREE-KAJIMA	\$120,000
53	Analysis of Collapse of Structures (PI/PD w/G Dargush, M Sivaselvan, O. Lavan) incl \$80,000 at U Colorado-renewed	04/08-03/10	CUREE-KAJIMA	\$100,000
54	Quantification of Organizational Resilience for Health Care Facilities -(w/Bruneau PI/PD)	10/06-09/09	DHS/PACER	\$132,000

55	NEESR-GC- Nonstructural Components (Filiatrault PI, CoPI UB) - AMR -Share \$54,163	10/07-09/12	NSF-CMMI-0721399	\$765,499
56	Seismic Evaluation and Modeling of Transformers (Reinhorn, PI-PD, Filiatrault CoPI)	06/08-03/09	BONEVILLE.P.AD.	\$129,000
57	NEESR-SG- Adaptive Control (Nagarajaiah PI-PD, Reinhorn, PI- UB, Constantinou, Co-PI)-UB Share \$467,780	10/08-09/12	NSF-CMMI-0830391	\$1,600,000
58	Improved Seismic Performance of Transformer Bushings (Reinhorn, PI-PD, Filiatrault CoPI)	10/08-03/10	CALIF.ENERG.COMS	\$241,430
59	Seismic Protection of Transformers and Substation Equipment (Reinhorn, PI-PD, Filiatrault CoPI, Constantinou, CoPI)	04/08-09/12	BONEVILLE.P.AD.	\$1,170,000
60	A Framework for Defining and Measuring Disaster Resilience at the Community Scale(Reinhorn, PI-PD,Bruneau, CoPI, Renschler, CoPI)	09/09-09/10	NIST-60NANB9D9155_0	\$69,751

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Major Capital Equipment & Service Grants

1	Automated Control/Data Acquisition System for Buffalo's Earthquake Simulator (Faculty associate w/G.C. Lee Principal Investigator)	1983	NSF	\$197,824
2	Earthquake Engineering and System Dynamics Research Center, (Faculty Associate w/R.L. Ketter, Center Director)	10/85-10/86	SUNY/Buffalo	\$100,000
3	Addition and Expansion of Ketter Hall - Structural Engineering and Earthquake Engineering Laboratory	1999-2003	State of New York	\$9,000,000

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International Travel Grants

1	International Travel Grant for International Symposium on ferrocement, Bangkok 1985.(Recommended by ACI/Committee 549).	1/1/85	NSF	\$1,500
2	International Travel Grant for 9th World Conference on Earthquake Engineering (9WCEE - Tokyo, Japan). (Award based on national competition).	8/1/88	NSF/EERI	\$1,610
3	International Travel Grant for Milestone Meeting on Active Control (Japan). Taknaka, Kayaba	8/1/88	TAKENAKA	\$2,000
4	Workshop on Energy Methods - Bled, Slovenia	7/1/92	NSF/Stanford	\$1,600
5	US/China/Japan Trilateral Workshop on Active Control, Shanghai, China	10/1/92	NSF	\$2,000
6	US/Japan Workshop on Active Control, Hawaii, U.S.	8/1/93	NSF/USC	\$2,000
7	Workshop on Energy Methods - Bled, Slovenia	6/1/97	NSF/Stanford	\$1,600
8	Workshop on Energy Methods - Bled, Slovenia	6/4/06	NSF/PEER	\$1,600

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Summary Grants

Research and Other Competitive Grants	\$15,633,012
Special Equipment Grants (NEES)	\$17,914,175
Group Organization Grants	\$106,848,913
Major Capital Equipment & Service Grants	\$9,297,824
International Travel Grants	\$13,910