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| Curriculum Vitae  of  Chin-Tung Cheng | IMG_0312 5x5cm |

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**EDUCATION:**

*1/1992 – 1/1997* **State University of New York at Buffalo**, Buffalo, New York

1. *Ph.D*. in Civil Engineering-Division of Structures

*8/1990 – 5/1993* **West Virginia University**, Morgantown, West Virginia

1. *M.S.*in Civil Engineering-Division of Structures

*9/1985 – 6/1988*  **National Chung-Hsing University**, Taichung, Taiwan

1. *M.S.*in Civil Engineering-Division of Engineering Materials

*9/1977 – 6/1981* **National Chung-Hsing University**, Taichung, Taiwan

1. *B.S.*in Civil Engineering

**PROFESSIONAL and ACADEMIC EXPERIENCE:**

**National Kaohsiung University of Science and Technology,**

**Department of Constructional Engineering** *02/2018 –presemt*

*Professor 02/2018 –present*

**National Kaohsiung First University of Science and Technology,**

**Department of Constructional Engineering** *08/1997 –02/2018*

*Chairman of Department 08/2011-07/2014*

*Professor 05/2009 –02/2018*

*Associate Professor 01/2003 – 04/2009*

*Assistant Professor 08/1997 – 12/2002*

**National Chung-Hsing University,**

**Dept. of Civil Engineering** *08/1982 – 07/1990*

*Teaching Assistant 08/1982 – 07/1990*

**RESEARCH and PROJECT AREAS:**

**Rehabilitation of Reinforced Concrete Structures:**

* Developed technique to repair fractured longitudinal reinforcements in columns after an earthquake.
* Developed models and methods to evaluate the seismic performance of bridge piers after repair.
* Repair or retrofit of flexural or shear-critical hollow-bridge columns.

**Composite Structures:**

* Experimental investigation of the composite effect of the steel beam and floor slab.
* Developed models to evaluate the seismic performance of concrete-filled steel tubular columns.
* Seismic behavior of concrete filled steel plate shear walls subjected to in-plane shear loads

**Beam-Column Connections:**

* Experimental investigation of steel beams to concrete filled steel tubular column connections.
* Experimental investigation of steel beams to reinforced concrete column connections.
* Experimental investigation of precast/prestressed concrete beam-column connections.
* Developed models to simulate the behavior of shear transfer in the panel zone of the connections.
* Developed models to simulate the force-deformation behavior of the beam-column connections.

**Self-Centering Constructions:**

* Experimental investigation of precast/prestressed concrete beam-column connections.
* Experimental investigation of precast/prestressed concrete space frame with floor slab under uni-axial or bi-axial loads.
* Developed models to simulate the behavior of shear transfer in the panel zone of the connections.
* Developed models to evaluate the force-deformation behavior of the beam-column connections.
* Dynamic characteristic of self-centering structures under free vibration or shaking table loading.

**Base-Isolation:**

* Development of rocking bearing using shaking table tests.
* Dynamic characteristic of rocking bearing due to earthquake loading.

**INVITED PROFESSIONAL CONTRIBUTIONS:**

* Invited to be Editorial Advisory Board Member of The Open Construction and Building Technology Journal, commencing 2008.
* Selected in **Marquis Who's Who in the World** in 2008.
* Selected as 2017 Albert Nelson Marquis Lifetime Achievement Award by **Marquis Who's Who**.
* Reviewer for professional journal paper.

**PUBLICATIONS:**

**(A) Journal Papers**

1. Tsong Yen、**Chin-Tung Cheng**(1990)，"Thermal Conduct and Pore Variations in Concrete when subjected to Elevated Temperature,” *Engineering Journal in Chung-Hsing University,* Vol. 1, 1990, pp.47-56. (In Chinese).
2. Chen, H-L., **Cheng, C-T.** and Chen, S-E.(1993) ,"Determination of Fracture Parameters of Mortar and Concrete Beams by Using Acoustic Emission," *Material Evaluation*, Vol. 50, No. 7, pp. 888-894, July 1993.
3. Mander, J.B. and **Cheng, C.-T.** (1999) "Replaceable Hinge Detailing for Bridge Columns,” ACI SP-187, Seismic Response of Concrete Bridge, pp. 185-204.
4. **Cheng, C-T.**(1999)，"New Technique in Seismic Isolation of Bridges- Theory Development and Experimental Validation of Rocking Bridge Piers,” *Journal of Civil Engineering Techniques*, Vol. 3, No. 4, Feb. 1999, pp.1-14. (In Chinese).
5. Mo, Y.L., Yeh, Y-K., **Cheng, C.-T.**, Tsai, I.C. and Kao, C.C., (2001), “Seismic Performance and Retrofit of Hollow Bridge Columns,” *Earthquake Engineering and Engineering Seismology*, Vol. 3, No. 1, pp. 59-66.
6. **Cheng, C-T.,** (2001)"Damage Control and Repair of Bridge Piers-Application in New Construction,” *Journal of Civil and Hydraulic Engineering*, Vol. 13, No. 4, pp.175-183. (In Chinese)
7. **Cheng, C.-T.,** and L- L. Chung (2003), “Seismic Performance of Steel Beams to Concrete-filled Steel Tubular Connections,” *Journal of Constructional Steel Research*, Vol. 59, No. 3, March 2003, pp. 405-426.
8. **Cheng, C.-T.**, Yang, J-C., Yeh, Y-K. and S.E. Chen (2003), “Seismic Performance of Repaired Hollow-Bridge Piers,” *Construction and Building Materials*, Vol. 17, No.5, pp. 339-351.
9. **Cheng, C.-T.,** Yeh, Y-K. Mo and Y-L. (2004) “Flexural Repair of Hollow Rectangular Bridge Columns Failed due to Earthquake Type Loading,” *Materials and Structures Journal*, Dec. 2004, Vol. 37, No. 274, pp. 717-723.
10. **Cheng, C-.T.** and Chen, C.C. (2005) “Seismic Behavior of Steel Beam and Reinforced Concrete Column Connections,” *Journal of Constructional Steel Research,* Vol. 61, No. 5, May 2005, pp. 587-606.
11. **Cheng, C.-T.**, Mo, Y-L. and Yeh, Y.-K. (2005) “Evaluation of As-built, Retrofit and Repaired Shear-Critical Hollow Bridge Columns under Earthquake-type Loading,” *Journal of Bridge Engineering, ASCE,* Vol. 10, No.5, Sept.-Oct, 2005, pp. 520-529.
12. **Cheng, C-T.**, (2007) “Energy Dissipation of Rocking Bridge Piers under Free Vibration Test,” *Earthquake Engineering and Structural Dynamics,* Vol. 36, No. 4, pp.503-518.
13. **Cheng, C-T.** Chan, C-F. and Chung, L-L., (2007) “Seismic Performance of Steel Beam and CFT Column Connections with Floor Slab,” *Journal of Constructional Steel Research,* Vol. 63, No. 11, Nov. 2007, pp. 1479-1493.
14. **Cheng, C-T.** and Y.L. Chen(2008) “Seismic Behavior of the Steel-reinforced Neoprene Pad with Steel or Concrete Shear Keys in the Simply Supported Bridge,” *Journal of Civil and Hydraulic Engineering,* Vol. 20, No. 1 pp. 111-120*.*(In Chinese)
15. **Cheng, C-T.**, (2008) “Shaking Table Tests of Self-centering Designed Bridge Sub-structures,” *Engineering Structures* Vol. 30, No.12, pp. 3426-3433*.*
16. **Cheng, C-T.**, (2008) “Seismic Behavior of Precast/Post-Tensioned Reinforced Concrete Beam to Column Connections,” *Computers and Concrete An International Journal,* Vol.5, No.6, pp. 525-544*.*
17. **Cheng C.T.** and Jiang, M.H. (2013) “Application of Self-centering Rocking Bearings in Vibration Isolation of Building,” *Journal of Vibration and Shock*, Vol. 32, No. 8, pp. 68-78. (In Chinese)
18. **Cheng C.T.** and Jiang, M.H. (2013) “Seismic Response of Rocking Pier System on Rigid Foundation,” *Journal of Hunan University (Natural Sciences)*, Vol. 40, No. 4, pp. 32-41. (In Chinese)
19. **Cheng C.T.** and Chen, F.L. (2014) “Seismic performance of a rocking bridge pier substructure with frictional hinge dampers,” *Smart Structures and Systems,* Vol.14, No.4 .pp. 501-516.
20. **Cheng, C-T.** and Chao, C-H. (2017)“Seismic Behavior of Rocking Base-isolated Structures,” *Engineering Structures,* Vol. 139, May 2017, pp. 46-58*.*
21. **Conference Papers**
22. Chen, H-L. and **Cheng, C-T.** (1992)"Study of Three-dimensional Crack Tip Location of Mortar by Acoustic Emission," Proc. of Nondestructive Testing of Concrete Elements and Structures, ASCE, San Antonia, Texas, pp. 25-36, April 13-15, 1992.
23. Mander, J.B. and **Cheng, C-T.** (1995)"Renewable Hinge Detailing for Bridge Columns," Pacific Conference on Earthquake Engineering, Parkville Victoria, Australia, Nov. 20-22, 1995, pp. 197-206.
24. Mander, J.B. and **Cheng, C-T.** (1995)"Replaceable Hinge Detailing for Bridge Columns," Section 4, National Seismic Conference on Bridges and Highways, San Diego, Dec. 10-13, 1995.
25. **Cheng C-T.** and Mander**,** J.B.(1999),"Damage Control and Reparability Design,” Asian-Pacific Symposium on Structure Reliability and its Applications, Taipei, Taiwan, R.O.C. Feb. 1-3, 1999, pp. 436-447.
26. **Cheng C-T.**, Lu, L-Y., Hwang, P-S. and Chung, L-L.(2000), ”Connection Behavior of Steel Beam to Concrete-filled Circular Steel Tubes,” Proc. of the 6th ASCCS International Conference on Steel-Concrete Composite Structures, Los Angles, U.S.A., March 22-24, 2000, pp. 581-589.
27. **Cheng, C-T.,** Lin, Y.H. and Lu, L.Y. (2001). “Shear Transfer in the Panel Zone of Steel Beam to Concrete-filled Tubular Connections,” The First International Conference on Steel and Composite Structures, 14-16 June 2001, Seoul, Korea, pp. 1161-1169.
28. Ming-Hsiang Shih, **C.-T. Cheng** and Han-Yu Tung. (2001). ”Experimental Validation of Retrofitted and Repaired Beam-column Connection by using Concrete Jacket,” 2001 First International Conference on Planning and Design, Nov. 3-4, 2001, Tainan, p. 37.
29. **Cheng, C.-T.**, J-C. Yang and Y-K. Yeh. (2001). “Seismic Performance of Hollow-Bridge Piers Repaired by FRP,” Proceedings of the International Conference on FRP Composites in Civil Engineering, Dec. 12-15, 2001, Hong Kong, China, Vol. 1, pp. 859-867.
30. **Cheng, C.-T.** and Ming-Hsiang Shih (2002). “Impact Behavior of Rocking Bridge Piers,” 2002 ASME Pressure Vessels and Piping Division Conference, Aug 5-9 2002, Vancouver, BC, Canada, Vol. 445, No. 2, pp. 221-227.
31. **Cheng, C.-T.**, (2002) “Shear Transfer in the Panel Zone of CFT Beam- Column Connections,” 4Th Taiwan-Japan-Korea Joint Seminar on Earthquake Engineering for Building Structures, Oct. 25-26, 2002, Seoul, Korea, pp. 209-219.
32. **Cheng, C.-T.**, (2003) “Seismic Behavior of Slab on Steel Beam to Reinforced Concrete Column Connections,” Response of Structures to Extreme Loading Conference, Aug. 3-6, 2003, Toronto, Paper No. O95.
33. Shen-En Chen, Fouad H. Fouad, and **C.-T. Cheng** (2003) “Scanning Laser Vibrometry For Detecting Damages in FRP-Composites,” Second International Workshop on Structural Composites for Infrastructure Applications-Cairo, Egypt, December 17- 18, 2003.
34. **Cheng, C.-T.,** and Cheng-Chih Chen (2004) “Test and Behavior of Steel Beam to Reinforced Concrete Column Connections,” Paper No. 422, 13Th World Conference on Earthquake Engineering, Aug. 1-6, 2004, Vancouver, Canada.
35. **Cheng, C.-T.,** and Shing-Hsing Lin（2004）“Evaluation of Shear Capacity in Steel Beam and Reinforced Column Connections,” 6Th Taiwan- Japan-Korea Joint Seminar on Earthquake Engineering for Building Structures, Nov. 12-13, 2004, Taipei, Taiwan, pp. 227-237.
36. **Cheng, C.-T.,** and Chung, L.L. (2005) “Seismic Performance of Steel Beam and CFT Column Moment-Resisting Connections with Floor Slab,” Proceedings of the 2005 Symposium on Engineering Science and Technology, College of Engineering, NKFUST, March 31, 2005, pp. 107-112.
37. **Cheng, C.-T.,** and Liu, C.-T. (2005) “Seismic Performance of Post-tensioned Interior Reinforced Concrete Beam to Column Connections,” US-Taiwan Workshop on Self-Centering Structural Systems, June 6-7, 2005, Report No. NCREE-05-004, pp. 25-27.
38. **Cheng, C.-T.,** and Liu, C.-T. (2006) “Seismic Performance of Precast/Post-tensioned Reinforced Concrete Beam to Column Connections,” paper No.218, First European Conference on Earthquake Engineering and Seismology, Sept. 3-8, 2006, Geneva, Switzerland.
39. **Cheng, C-T.**, and Lu, W.-H. (2006) “Shaking Table Tests of Self-centering Designed Bridge sub-structures,” paper No. 60, Fourth International Conference on Earthquake Engineering, Oct. 12-13, 2006, Taipei, Taiwan.*.*
40. **Cheng, C.-T.,** and Keh, W.-L. (2006) “Force transfer of Floor Slab in Self-centering Designed Structures,” 2nd US-Taiwan Workshop on Self-Centering Structural Systems, Oct. 14, 2006, Report No. NCREE-06-013, pp. 30-33.
41. **Cheng, C.-T**., Chen, H.H., Lin, K.C., Chen P. C. and Jhuang, S.J.(2008) “Seismic performance of a 3D Precast/Post-Tensioned Reinforced Concrete Sub-Structure under Bi-Axial Loads,” Paper No.12-01-0203, 14Th World Conference on Earthquake Engineering, Oct. 12-17, 2008, Bejing, China.
42. **Cheng, C**.-T., Chen, F.L. and Lu, L.Y. (2009) “Shaking Table Test of a Self-centering Designed Bridge Substructure with Frictional Hinge Dampers,” International Conference in Commemoration of the 10 Th  Anniversary of 1999 Chi-Chi Earthquake, Sep. 17-21, 2009, Taipei, Taiwan.
43. **Cheng, C.-T**. and Wang, T.Y. (2009) “Seismic Performance of Enhancing Link Beam and Column Connections in Eccentrically Braced Frame,” Eleventh Japan-Korea-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2009), Dec. 3-5, 2009, Kyoto, Japan, pp. 43-51.
44. **Cheng, C**.-T., and Chen, F.L. (2010) “Shaking Table Tests of a Self-centering Designed Bridge Substructure with Frictional Hinge Dampers,” Paper No. 1770, 14th European Conference on Earthquake Engineering, Aug. 30-Sep.03, 2010, Ohrid, R. O. Macedonia.
45. **Cheng, C.-T.**, Hsu, C.-H. and Lin, K-C. (2011) “Development of Self-centering Effect on Eccentrically Braced Frame,”EUROSTEEL 2011, August 31 - September 2, 2011, Budapest, Hungary.
46. **Cheng, C.-T.**, Hsu, C.-H. and Lin, K-C. (2012) “Seismic Behavior of Self-centering Designed Eccentrically Braced Frames,” Paper No. 1330, 15Th World Conference on Earthquake Engineering, Sept. 24-28, 2012, Lisbon, Portugal.
47. **Cheng, C.-T.** and Chao, C.-H. (2013) “Shaking Table Tests of Structures with Rocking Based-isolated Bearing,” Paper No. 144, Vienna Congress on Recent Advances on Earthquake Engineering and Structural Dynamics, Aug. 28-30, 2013, Vienna, Austria.
48. **Cheng, C.-T.** and Chao, C.-H. (2013) “Seismic performance of Base-isolated Structures with Rocking Bearing,” Proceeding of the Fifth International Conference on Advances in Experimental Structural Engineering, edited by K.C. Chang, K.C. Tsai and K.J. Wang, National Center for Research on Earthquake Engineering, Report NCREE-13-017, pp. 320-327.
49. **Cheng, C.-T.**, and Yen, C-Y. (2013) “Seismic Behavior of Self-centering Designed Concentrically Braced Frame,” Fifteenth Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2013), Nov. 28-29, 2013, Taipei, Taiwan, pp. 69-77.
50. **Cheng, C.-T.**, and Yen, C-Y. (2014) “Seismic Performance of Self-centering Designed Concentrically Braced Frame,” Paper No. 511, EUROSTEEL 2014 (7th European Conference on Steel and Composite Structures), Sept. 10-12, 2014, Napoli, Italy.
51. **Cheng, C.-T.** and Chao, C.-H. (2014) “Seismic Performance of Base-isolated Structures with Rocking Bearing,” Sixteenth Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2014), Sept. 19-20, 2014, Seoul, Korea, pp. 77-86.
52. **Cheng, C.-T.** and Kang, W.-Z. (2016) “Seismic Performance of Rocking Base-isolated Structures subjected to Bi-axial Earthquake Loads,” Asian Conference on Civil, Material and Environmental Sciences 2016, paper No. 2297, Sept. 19-21, 2016, Sapporo, Japan.
53. **Cheng, C.-T.** and Lin, J.-S. (2016) “Shaking table tests of rocking base-isolated structures with frictional hinge damper,” Eighteenth Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2016), paper No. 23, Dec. 2-3, 2016, Tainan, Taiwan, pp. 203-212.
54. **Cheng, C.-T.** and Kang, W.-Z. (2017) “Seismic Performance of Rocking Base-isolated Structures subjected to Bi-axial Earthquake Loads,” 16th World Conference on Earthquake Engineering, paper No. 248, Jan. 9-13, 2017, Santiago, Chile.
55. **Cheng, C.-T.** and Kang, W.-Z. (2017) “Shaking table tests of rocking base-isolated structures subjected to Bi-axial Earthquake Loads,” 19th Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2017), Sept. 8-9, 2017, Seoul, Korea, pp. 11-21.
56. **Cheng, C.-T**. and Chen, B.-W. (2018) “Seismic Performance of Concrete–filled Steel Plate Composite Walls Subjected to In-plane Shear Loads," paper No.0054, Asian Conference on Civil, Material and Environmental Sciences, July. 10-12, 2018, Tokyo, Japan.
57. **Cheng, C.-T**. and Chen, B.-W. (2018) “Cyclic Tests of Concrete–filled Double-Steel-Plate Composite Walls Subjected to In-plane Shear Loads," 20th Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2018), Nov. 2-3, 2018, Kyoto, Japan, pp. 221-228.
58. **Cheng, C.-T.** (2019)“Seismic Behavior of Structures Base-isolated with Rocking Bearing,” *Keynote paper*, International Research Conference on Engineering and Technology, Jan. 8-10, 2019, Taipei, Taiwan.
59. **Cheng, C.-T**., Chang, Y.-C. and Chang, H.-Y. (2019) “Seismic Performance of Concrete–filled Low-Yield Steel Plate Composite Walls Subjected to In-Plane Shear and Axial Loads,” The 9th International Conference on Engineering and Applied Science (ICEAS 2019), paper No. 0273, Aug..6- 8, 2019, Honolulu, Hawaii, U.S.A.
60. **Cheng, C.-T**., Chang, Y.-C. and Chang, H.-Y. (2019) “Cyclic Performance of Concrete–filled Low-Yield Steel Plate Composite Walls Subjected to In-Plane Shear and Axial Loads,” The International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, paper No. SE7-012, Sep. 16-19, 2019, Taipei, Taiwan.
61. **Cheng, C.-T**., Chang Y.C. and Chang, H.-Y. (2019) “Cyclic In-plane Shear Performance of Concrete–filled Low-Yield Steel Composite Walls in High-Rise Buildings," 21th Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures(SEEBUS 2019), Dec. 6-7, 2019, Hsinchu, Taiwan, pp. 52-60.
62. **Technical Reports and Thesis**
63. **Cheng, C-T.**(1993) "Determination of Fracture Parameters of Mortar and Concrete Beams by Using Acoustic Emission," Master Thesis, College of Engineering, West Virginia University, May 1993.
64. **Cheng, C-T.**(1997) "New Paradigms for the Seismic Design and Retrofit of Bridge Piers," Ph. D. Dissertation, State University of New York at Buffalo, Jan. 31, 1997.
65. **Cheng, C-T.** and Mander, J.B. (1997)"Seismic Design of Bridge Columns Based on Control and Reparability of Damage," Technical Report, NCEER 97-0013, National Center of Earthquake Engineering Research, Buffalo, New York, U.S.A..
66. Mander, J.B. and **Cheng, C-T.**(1997) "Seismic Resistance of Bridge Piers Based on Damage Avoidance Design," Technical Report, NCEER 97-0014, National Center of Earthquake Engineering Research, Buffalo, New York, U.S.A..
67. **Cheng, C-T.,** Hwang**,** B.H., Lu, L.Y., and Chung, L.L. (2000).”Seismic Behaviors of Steel beam to CFT connections,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-00-009, July 2000. (In Chinese)
68. **Cheng, C-T.**,Lin, C.H. and Yeh, Y.K. (2000).”Seismic Retrofit of Rectangular Hollow Bridge Piers, ” National Center for Research on Earthquake Engineering, Technical Report, NCREE-00-010, July 2000. (In Chinese)
69. **Cheng, C-T.**,Lin, Y.H. and Lu, L.Y. (2001).”Shear Transfer of Steel beam to CFT connections,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-01-018, Aug. 2001. (In Chinese)
70. **Cheng, C-T.**, Yang, C.H.andYeh, Y.K. (2001).” Seismic Retrofit of Hollow Bridge Piers by using FRP, ” National Center for Research on Earthquake Engineering, Technical Report, NCREE-01-019, Aug. 2001. (In Chinese)
71. **Cheng, C-T.**, Jieng, P.H., Chen, C.C., Tsai, K.C., and Shih, M.H. (2002) “Seismic Behavior of Steel Beams to Reinforced Concrete Column Connections with Floor Slab,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-02-024, Sep.2002. (In Chinese)
72. **Cheng, C-T.**, Her, Y.Y. and Shih, M.H. (2003) “Experimental Investigation of Rocking Columns under Free Vibration,” National Center for Research on Earthquake Engineering, NCREE-03-024, Sep. 2003. (In Chinese)
73. **Cheng, C-T.**, Yang, J.T. and Wang, C.C. (2003) ”Nonlinear Analysis of Full Scale RCS Frames, National Center for Research on Earthquake Engineering, Technical Report, NCREE-03-025, Sep. 2003. (In Chinese)
74. **Cheng, C-T.**, Chan, C.F. and Chung, L.L. (2004) “Seismic Performance of Steel Beam and CFT Column Connections with Floor Slab,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-04-007, June, 2004.(In Chinese)
75. **Cheng, C-T.** and Liu, C.D. (2006) “Seismic Behavior of Beam-column Connections in Precast and Prestressed Structures,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-06-002, March, 2006. (In Chinese)
76. **Cheng, C-T.** and Chen, Y.L. (2006) “Seismic Behavior of the Steel-reinforced Neoprene Pad with Steel or Concrete Shear Keys in the Simply Supported Bridge,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-06-003, March,2006.(In Chinese)
77. **Cheng, C-T.** and Ker, W.L. (2006) “Seismic Behavior of Beam-column Connections in Precast and Prestressed Structures（II）,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-06-023，Dec. 2006. (In Chinese)
78. **Cheng, C.-T**., Chen, H.H., Lin, K.C., Chen P. C. and Jhuang, S.J. (2008) “Force Transfer of a 3D Self-Centering Design Reinforced Concrete Sub-Structure under Bi-Axial Loads,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-08-003，Feb. 2008. (In Chinese)
79. **Cheng, C.-T.,** Hsu, C.H., Chou, C.H, and Chen, A.C. (2011) “Seismic Behavior of Self-centering Designed Eccentrically Braced Frames,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-11-004, March 2011. (In Chinese)
80. **Cheng, C.-T.,** Yen, C.Y., Chou, C.H, and Chen, A.C. (2012) “Seismic Behavior of Self-centering Designed Concentrically Braced Frame,” National Center for Research on Earthquake Engineering, Technical Report, NCREE-12-008, Sept. 2012. (In Chinese)
81. **PATENTS:**

**Chin-Tung Cheng**, “Rehabilitation Technique for Reinforced Concrete Structures after an Earthquake,” Republic of China, No. 136212, filed 7/11/2001.