Professor Shizhao Shen

From: http://aloss.biz/en/8958 (Harbin Gymnasium - 2004 Shizhao Shen, Feng Fan et al, Structural engineers)

See:
http://en.hit.edu.cn/m/news/3017
http://aloss.biz/en/8958 (Harbin Gymnasium - 2004 Shizhao Shen, Feng Fan et al, Structural engineers)

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Activity (from: http://en.hit.edu.cn/m/news/3017 (dated November 17, 2017):
As a distinguished expert in the field of steel structures, academician Shen Shizhao has been committed to the emerging field of large span space structures. From the combined reticulated shell designed for the Asian Games stadiums to the variable cable net system designed for the 500-meter radio telescope, he has made a great contribution to the innovation of the space structure system. He is a leader in the fields of suspension cable structure systems and analytic theory, the nonlinear stability of the latticed shell, wind induced dynamic response of long-span, flexible roofs and studies on the failure mechanism and kinetic stability of the latticed shell during a strong earthquake. He has kept close connections with the engineering field and has designed a large number of typical, yet creative large scale space structures for many major projects. He participated in the design of major sport engineering projects such as the Bird's Nest and the Water Cube for the 2008 Beijing Olympic Games. Other design engineering projects include stadiums at Shijingshan district and Chaoyan district for the Asian Games, the speed-skating rink in Heilongjiang Province for the Asian Winter Games, the skating center in Jilin Province, the Weihai stadium and the Harbin International Meeting and Exhibition Center.

2017 Award [from: http://en.hit.edu.cn/m/news/3017 (dated November 17, 2017)]:
Recently, at the 2017 China Steel Construction Assembly and Zhejiang Steel Construction Forum held at Xiaoshan, Zhejiang Province, academician Shen Shizhao was awarded the "Highest Achievement Award of the China Steel Construction Society" for his outstanding contribution to the development of the steel structure industry.
Another 2017 Award [from http://hit-times.hit.edu.cn/issue/show/6 (Harbin Institute of Technology (HIT) Times, 2017)]:

2nd Prize: National Scientific and Technological Progress Award

The project “Study and Application on Key Technologies of Large Span Spatial Steel Structures” won the 2nd prize of National Scientific and Technological Progress Award, which was undertaken by Prof. Fan Feng and CAS member Shen Shizhao’s research team from School of Civil Engineering.

In the past 30 years, rapid progress has been made in the field of Chinese large span spatial steel structures. Plenty of notable difficulties occurred with the increasing span and diversified structure styles, such as multi-nonlinear properties of structures, uncertainty of loading and obvious spatial correlation effects.

Selected Publications:

Chen, X., Shen, S.Z.: "Complete load–deflection response and initial imperfection analysis of single-layer lattice dome", Int. J. of Space Structures, Vol. 8(4), pp.271-8, (1993)

Wang, C., Shen, S. Z., and Chen, Y. B. (1996). “Dynamic stability of reticulated dome.” Proc. the 1st International Conference on Advances in Steel Structures, Hongkong, China, Pergamon, Oxford, UK, pp. 1065–1070.

Fan Feng; Shen Shi-zhao, Vibration reducing analysis and experimental study of viscous damper on reticulated shells, Earthquake Engineering And Engineering Vibration;2000-01

Fan Feng, Shen Shi-zhao, Vibration reducing analysis of single-layer reticulated shells with viscous-elastic dampers, Earthquake Engineering and Engineering Vibration;2003-03

Shizhao Shen, Jihui Xing and Feng Fan, “Dynamic behavior of single-layer latticed cylindrical shells subjected to seismic loading”, Earthquake Engineering and Engineering Vibration, Vol. 2, No. 2, pp 269-279, December 2003

Shen, S. Z. (2003). “The dynamic stability problem of reticular shells.” Proc. IASS-APCS Symposium, China, pp. 44–46.

Shen, S. Z. (2006). “Recent advances on the fundamental research of spatial structures in China.” Journal of the International Association for Shell and Spatial Structures, 47(2), pp. 93–100.

Zhi, X. D., Fan, F., and Shen, S. Z. (2007). “Failure mechanisms of single layer reticulated domes subjected to earthquake.” Journal of the International Association for Shell and Spatial Structures, 48(1), pp. 29–44

Xudong Zhi, Feng Fan and Shizhao Shen, “Elasto-plastic instability of single-layer reticulated shells under dynamic actions”, Thin-Walled Structures, DOI: 10.1016/j.tws.2010.04.005, 201

F. Fan, Z. Cao, and S. Shen, Elasto-plastic stability of single-layer reticulated shells, Thin walled Struct, vol. 48, pp. 827-836, 2010.

Xu-Dong Zhi, Feng Fan and Shi-Zhao Shen, “Failure mechanism of single-layer cylindrical reticulated shells under earthquake motion”, International Journal of Structural Stability and Dynamics, Vol. 12, No. 2, 233, March 2012

Feng Fan, Minling Wang, Zhenggang Cao and Shizhao Shen, “Seismic behaviour and seismic design of single-layer reticulated shells with semi-rigid joint system”, Advances in Structural Engineering, Vol. 15, No. 10, pp 1829-1841, October 2012

X.D. Zhi, G.B. Nie, F. Fan and S.Z. Shen, “Vulnerability and risk assessment of single-layer reticulated domes subjected to earthquakes”, ASCE Journal of Structural Engineering, Vol. 138, No. 12, December 2012

Huihuan Ma, Feng Fan, Peng Wen, Hao Zhang and Shizhao Shen, “Experimental and numerical studies on a single-layer cylindrical reticulated shell with semi-rigid joints”, Thin-Walled Structures, Vol. 86, pp 1-9, January 2015

Qingwen Zhang, Yu Zhang, Li Yao, Feng Fan and Shizhao Shen, “Finite element analysis of the static properties and stability of a 800 m Kiewitt type mega-latticed structure”, Journal of Constructional Steel Research, Vol. 137, pp 201-210, October 2017