HYUN JOO HAN

(US citizen)

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Professional Experience

Architectural Engineer, With Architects & Consultants, 1995 – 1998, 2001 – 2002 (Korea)

Instructor, Jeju College of Technology, 2002 (Korea)

Instructor, Department of Architectural Engineering, Jeju National University, 2002 (Korea)

Instructor, Department of Architectural Engineering, Kyung Hee University, 2007 - 2008 (Korea)

Invited Research Professor, Department of Architectural Engineering, Dongguk University, 2009 – 2012 (Korea)

Research Associate, Center for Energy Research, University of Nevada, Las Vegas (UNLV), 2010 – present.

Research advisor, "Development of a solar illumination system utilizing concentrated solar energy, supported by the National Research Foundation of Korea (USD2,000,000)," Jeju National University, 2009 - present

Education

Chungnam National University (Korea), B.S., 1988

Chungnam National University (Korea), M.S., 1991

University of Nottingham, Ph.D. (United Kingdom), 2010

Honors (Awards)

Excellent Design Award (Student Category), Sponsored by the Ministry of Construction and the Korea National Housing Corporation, (Theme of Work : A Multifamily House for 3 generations), Korea, 1986. 12.

Excellent Design Award(Student Category in Architecture), The 17th Chungnam Art Festival (Theme of Work : A Passive Solar School Building), Korea, 1987. 4.

Special Award (Student Category in Architecture), The 18th Chungnam Art Festival (Theme of Work : An Office Building with OA Systems), Korea, 1988. 4.

Third Prize Winner, The 1st Amateur Apartment Unit Design Contest, Sponsored by the Samsung Engineering & Construction Corporation, 1993. 4.

Good Paper Presentation Award, Korea Institute of Ecological Architecture and Environment, Seoul, Korea, 2006.

Outstanding Paper Award, The 6th International Conference on Sustainable Energy Technologies, Santiago, Chile, 2007. 9.

Best Paper Award, The 7th International Conference on Sustainable Energy Technologies, Seoul, Korea, 2008.8.

Publications 2007 - 2013

1. Conference papers

1) H. J. Han, S. Dutton, S. B. Riffat, J. T. Kim, "Application of high-density daylight for indoor illumination", Proceedings of the 6th International Conference on Sustainable Energy Technologies, pp. 344 – 351, Santiago, Chile, 2007. 9.

2) H. J. Han, J. T. Kim, "Application of high-density daylight for indoor illumination", Proceedings of the 7th International Conference on Sustainable Energy Technologies, Seoul, Korea, pp. 555 – 564, 2008. 8.

3) J. T. Kim, H. J. Han, K. Chen, "Integrated Design and Development of Energy-Efficient Buildings", Proceedings of the 7th International Conference on Sustainable Energy Technologies, Seoul, Korea, pp. 1464 – 1474, 2008. 8.

4) H. J. Han, S. B. Riffat, "Effect of Solar Daylighting on Indoor Visual Environment for an Office Space ", Proceedings of the 8th International Conference on Sustainable Energy Technologies, Aachen, Germany, 2009. 9.

5) H. J. Ha et al., "Performance analysis of a schoolroom model for solar applications ", Proceedings of the 8th International Conference on Sustainable Energy Technologies, Aachen, Germany, 2009. 9.

6) H. J. Han, S. B. Riffat, "A study on computer analysis of solar system for the indoor daylighting of school-room ", Proceedings of the 9th International Conference on Sustainable Energy Technologies, Shanghai , China, 2010. 8.

7) H. J. Han, S. B. Riffat, "Sustainable refurbishment of a historical building: Linde - Robinson Lab at CalTech ", Proceedings of the 11th International Conference on Sustainable Energy Technologies, Vancouver, Canada, 2012. 9.

2. Journal papers

1) H. J. Han, J. T. Kim, "Experimental evaluation of a fiber optic concentrator for daylighting", *Journal of the Korean Solar Energy Society*, Vol. 28. No. 3, pp. 27 – 34, 2008.

2) H. J. Han et al., "Effects of working fluids on the performance of a bi-directional thermodiode for solar energy utilization in buildings", *Solar Energy*, Vol. 83, Issue 3, pp. 409–419, 2009.

3) H. J. Han et al., "The position index of a glare source at the borderline between comfort and discomfort (BCD) in the whole visual world," *Building and Environment*, Vol. 44, Issue 5, pp. 1017-1023, 2009.

4) H. J. Han and J. T. Kim, "Application of high-density daylight for indoor illumination," *Energy*, Vol. 35, Issue 5, pp. 2654-2666, 2010

5) H. J. Han et al., "Integrated design strategy for energy-efficient buildings," *Energy*, Vol. 35, Issue 5, pp. 2647-2653., 2010

6) H. J. Han et al., "Measurement and RADIANCE simulation of a model lightwell, *International Journal of Energy Research,* Vol. 34, Issue 5, pp.387 – 392, 2010.

7) H. J. Han et al., "A Computational analysis on candela distribution curves and performance prediction of a fiber optic dish daylighting system by Photopia", *Journal of the Korean Solar Energy Society*, Vol. 32. No. 3, pp. 104 – 113, 2012.

8) H. J. Han et al., "Performance prediction of a light tube daylighting system-Light distribution analysis by Photopia and Radiance," *Journal of Energy & Climate Change*, Vol.7, No.1, pp.34-48, 2012.

9) H. J. Han et al., "Assessment on the effective application and utilization of a fiber-optic solar lighting system for different spaces," *Journal of Energy Engineering*, Vol. 22, No. 4 pp. 1~7, 2013.

10) H. J. Han et al., "Computational analysis on the enhancement of daylight penetration into dimly lit spaces: Light tube vs. fiber optic dish concentrator," *Building and Environment*, Vol.59, pp. 261-274, 2013.

11) H. J. Han et al. "Fiber optic solar lighting: Functional competitiveness and potential," Solar Energy, Vol. 94, pp. 86 – 101, 2013.