

Hongyi Cai

Assistant Professor

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PROFESSIONAL PREPARATION

Central South University, China	Architectural Engineering	B.Eng. 1997
Chongqing University, China	Architectural Technology and Science	M.Arch. 2000
University of Michigan	Architecture / Building Technology	M.S. 2005
University of Michigan	Architecture / Building Technology	Ph.D. 2008

APPOINTMENTS

2010 – present	Assistant Professor, Department of Civil, Environmental & Architectural Engineering, University of Kansas
2009 – 2010	Research Associate, Department of Building Services Engineering, Hong Kong Polytechnic University, Hong Kong
2007 – 2009	Application Engineer, WAC Lighting Company, New York, NY, USA

SELECTED PUBLICATIONS (Corresponding (lead) author underlined)

Related Publications

- Cai, H.** (2013). High dynamic range photogrammetry for synchronous luminance and geometry measurement. *Lighting Research & Technology*, 45(2):230-257.
- Cai, H.** & Chung T. M. (2013). Evaluating discomfort glare from non-uniform electric light sources. *Lighting Research & Technology*, 45(3) (in press).
- Cai, H.** & Chung T. M. (2011). Improving the quality of high dynamic range images. *Lighting Research & Technology*, 43 (1): 87-102.
- Cai, H.** (2013). High Dynamic Range Photogrammetry for Light and Geometry Measurement. 2013 *Architectural Engineering Institute Conference*. April 3-5, 2013. Penn State University, University College, PA.
- Li, L. & **Cai, H.** (2012). Roadway Environment Measurement Aided by the HDR Photogrammetry. *IES Annual Conference 2012*. Nov. 11-13, 2012. Minneapolis, MN.

Other Publications

- Cai, H.**, Green, P. A. & Kim, J. J. (2013). Estimating the legibility of a single letter e viewed at different display angles. *Applied Ergonomics* 44(4): 575-587.
- Cai, H.**, Kim, J. J., & Green, P. A. (2011). Ideal viewing areas of text presented in lecture halls predicted by a computer program. *Indoor and Built Environment*, 20(3): 321- 332.
- Cai, H.** & Green, P. A. (2009). Legibility Index to Examine Common Viewing Situations: A New Definition Using Solid Angle. *LEUKOS: The Journal of the Illuminating Engineering Society of North America*, 5 (4): 279-295.
- Su, X., Mahoney, M., Saifan, M., **Cai, H.** (2012). Mapping Luminance Gradient across A Private Office for Daylighting. *IES Annual Conference 2012*. Nov. 11-13, 2012. Minneapolis, MN.
- Cai, H.** & Chung T. M. (2010). Introduction to high dynamic range photogrammetric techniques: beginning of a new lighting stage. *IES Annual Conference 2010*. November 7-9, 2010. Toronto, Canada.

SYNERGISTIC ACTIVITIES

(1) Invited reviewer for

- a. Research Council for Natural Sciences and Engineering at the Academy of Finland; Research Grant Council (RGC), the University Grants Committee (UGC) of Hong Kong;
- b. Applied Ergonomics; Energy and Buildings; Building and Environment; Indoor and Built Environment; LEUKOS; IEEE Transactions on Image Processing; IEEE Transactions on Systems, Man, and Cybernetics-Part C: Applications and Reviews.
- c. Human Factors and Ergonomics Society (HFES) 56th annual meeting, Oct. 22-26, 2012. Boston, MA; 2013 ARCC Architectural Research Conference, Charlotte, NC.

(2) Members of professional organizations, including

- a. Illuminating Engineering Society (IES), also serve in the Research Committee and Daylighting Committee (11/2010 – present); Human Factors and Ergonomics Society (HFES), also serve in the Perception and Performance Technical Group (PPTG) (11/2010 – present); International Building Performance Simulation Association (IBPSA) (09/2010 – present); International Dark-Sky Association (02/2012 - present).
- b. Member of International Scientific Committee, 2013 Architectural Engineering Institute (AEI) Conference, April 3-5, 2013, The Pennsylvania State University, USA, 02/2012 – 04/2013; ICSDC 2011 Conference Organization Committee and Co-chair of Paper/Poster/Industry Review Committee, International Conference on Sustainable Design and Construction, March 23–25, 2011, Kansas City, MO (09/2010 – 03/2011);

(3) Academic advisor of University of Kansas Illuminating Engineering Society (IES) student chapter, University of Kansas (09/2010 – present).

(4) Undergraduate and graduate mentoring in lab research (7), including Andrew Leicht (senior), Zach Steinkuhler (senior), Josh Shore (senior), Stephan Olson (senior), Mariam Saifan (senior), Michael Mahoney (senior), Guide Rungamornchai (senior), Emily Melea Royal (M.S.).

(5) Departmental service, in the Engineering Library Committee, School of Engineering (09/2010 – 05/2012), and the Departmental IT committee, department of Civil, Environmental, and Architectural Engineering, University of Kansas (09/2010 – 2012)

COLLABORATORS

Collaborators and co-editors

Tse-Ming Chung, Hong Kong Polytechnic university, Hong Kong; Jong-Jin Kim, University of Michigan; Paul A. Green, University of Michigan; Mario Medina, University of Kansas; Tom Glavinich, University of Kansas; Steven Schrock, University of Kansas; Jie Han, University of Kansas; Robert L. Parsons, University of Kansas; Jae Chang, University of Kansas; Ai-ying Wang, Tianjin University, China; Yong-Hong Yan, Chongqing University; Soo-Young Kim, Yonsei University, Korea

Graduate and postdoctoral advisors:

PhD advisor: Jong-Jin Kim, University of Michigan

Post-doctoral advisor: Tse-Ming Chung, Hong Kong Polytechnic University

Graduate students advised (3)

Xiaomeng Su (Ph.D. in Civil Engineering, 08/2011-current), University of Kansas

Linjie Li (M.S. in Architectural Engineering, 08/2011-01/2013), University of Kansas

Mariam Saifan (M.S. in Architectural Engineering, 08/2012-current), University of Kansas

Postgraduate-scholar sponsored (1)

Ai-ying Wang (visiting professor, 10/2011-01/2013), Tianjin University, China

Thesis advisees in University of Kansas (13)

Yi Lan (M.S.); Leon L. Foster (Ph.D.); Kyoung Ok Lee (Ph.D.); Jose R. Mares (Ph.D.); Yilei Huang (Ph.D.); Scott W. Eason (D.E.); Shripad Adwalpalkar (M.S.); Emily M. Royal (M.S.); Scott W. Eason (M.S.); Rafal J. Trojniak (M.S.); Edward Cezar (M.S.); Brooks Hooper (M.S.).