

## C U R R I C U L U M   V I T A E

### JONG-JIN KIM

University of Michigan  
Ann Arbor, Michigan 48109  
Phone: 734-763-3518  
Email: daylight@umich.edu

**Education**      Ph D in Architecture, University of California, Berkeley  
M. ARCH, University of Texas, Austin  
B.S in Architectural Engineering, Seoul National University

**Teaching Areas**   Environmental Systems, Building Ecology, Building Enclosure Systems

#### Academic Positions

Current	Associate Professor, University of Michigan, Ann Arbor, Michigan
1991	Assistant Professor, University of Michigan, Ann Arbor, Michigan
1988	Assistant Professor, Arizona State University, Tempe, Arizona
1981	Research Associate, Lawrence Berkeley Laboratory, Berkeley, California
2005	Brain Pool Fellow, Korea Federation of Science and Technology
1998	Research Professor, Yonsei University, Seoul, Korea
1985	Visiting Academic, University of Strathclyde, Glasgow, United Kingdom

#### Professional Services (Selected)

2023	Reviewer, <i>Indoor and Built Environment Journal</i>
2023	Reviewer, <i>Creative Education Journal</i>
2022	Reviewer, <i>Techno Press Journal</i>
2022	Scientific Committee Member, <i>6th International Conference on Civil, Architectural and Structural Engineering (ICCASA 2022)</i> , Guangzhou, China
2021	External Reviewer, Tenure and Promotion Committee, UC Davis
2021	Reviewer, <i>The Plan Journal</i>
2021	Reviewer, Journal of Science and Technology for the Environment.
2021	Scientific Committee, International Conference on Energy Engineering, New Energy Materials and Devices, Shenzhen, China
2018	Guest Editor, <i>International Conference on New Paradigms in Energy</i> , Karimnagar University, Talangana, India
2018	Editorial Board Member, <i>Indoor and Built Environment Journal</i>
2018	Reviewer, <i>Energy and Buildings Journal</i>
2018	Reviewer, <i>Building and Environment Journal</i>
2017 - 2018	Reviewer, National Science Foundation, Singapore

2015 - 2016	External Reviewer, Building Technology Office, US Department of Energy
2016	Scientific Committee Member, <i>2016 ICSDEC (International Conference on Renewable Energy Technology)</i> , Along Luang, Pathumthani, Thailand
2014 - 2017	Reviewer, SDSU (San Diego State University) Research Foundation, California Energy Commission PIER Program
2013	Review Panel Member, CTBUH (Council on Tall Buildings and Urban Habitat)
2012	Scientific Committee Member, <i>2012 ICSDEC (International Conference on Sustainable Design and Construction)</i> , Forth Worth Texas
2012	Reviewer, Singapore National Research Foundation
2011	Scientific Committee Member, <i>2011 International Conference on Sustainable Design and Construction</i> , University of Kansas
2011	Reviewer, California Energy Commission, <i>Energy Innovation Small Grants</i> , SDSU Foundation, San Diego, California
2010	Member, External Program Review Board, Office of Provost, University of Oregon
2010	Reviewer, <i>AXA Research Fund</i> , Paris, France
2007	External Dissertation Examiner, Department of Architecture, Faculty of Environmental Design, University of Calgary, Calgary, Canada
1999 - 2004	Editorial Board Member, <i>Journal of Sri Lanka Institute of Architects</i>
2000 - 2001	Theme Editor, <i>Encyclopedia of Life Supporting Systems</i> , UNESCO-EOLSS, Paris, France
1994	Chair, <i>ACSA Technology Conference</i> , "Design and Technological Innovation for the Environment," Association of Collegiate Schools of Architecture
1990	Energy Exhibition, <i>International Union of Architects</i> (Energy and Architecture Working Group), Montreal, Canada

#### **Invited Lectures and Speeches (Selected)**

2022	Invited Speaker, <i>Renewable and Sustainable Energy Webinar</i> , SciWide Webinars.
2022	"Energy Production Alternatives for Tall Buildings," 5th International Conference of Contemporary Affairs in Architecture and Urbanism.
2019	"Non-Drinking Water Self-Sufficiency of Buildings Utilizing Rainwater Harvesting," Urban Water.
2018	"Energy and Form Revisited: Optimal Building Form for Zero Energy Building," Passive and Low Energy Architecture (PLEA) Conference, December 2018.
2018	"Field-Classroom Interactive Solar Education," Passive and Low Energy Architecture (PLEA) Conference, Hong Kong.
2017	"Feasibility of Rainwater Harvesting in US," ARCC Conference, Salt Lake City, Utah, June 2017.
2016	Chung Ang University, <i>Zero Energy Buildings: Feasibility and Strategies</i> , Seoul, Korea, May 2016

2015	Chung Ang University, <i>Resource Self-Sufficient Buildings: Fiction or Reality?</i> Seoul, Korea, June 2015
2015	Seoul National University, <i>The Prospect of Zero Energy High-Rise Buildings</i> , Seoul, Korea, June 2015
2013	Chi Epsilon Honor Student Society, College of Engineering, University of Michigan, <i>Zero Energy Building</i> , October 2013
2012	Faculty Presentation, <i>Feasibility of Zero Energy Buildings in the US</i> , TCAUP, September 2012
2009	"Optimization of PV-Integrated Shading Device," 2 <sup>nd</sup> International Symposium on Sustainable Healthy Building, Seoul, Korea
2009	"Sustainable Architecture," Chun Nam University, Kwang Ju, Korea
2008	"Sustainable Architecture: Economy and Strategies," International Symposium Sustainable Housing, Yonsei University, Seoul, Korea
2008	"Economic Benefits of Green Buildings," Remodel 2008 Conference, Ypsilanti, Michigan
2008	"New Agenda in Green Building," Lecture Series, School of Natural Resources and Environment, University of Michigan
2008	"Green Innovation in Architecture," 7 <sup>th</sup> International Conference on Sustainable Energy Technology, Seoul, Korea
2008	"Green Building, Green Community and Green City," Multifunctional Administrative City Construction Agency (MACCA), Ministry of Construction and Transportation, Korea
2005	"Critical Issues for Greening of the Korean Building Industry," Ecological Building Association Annual Meeting, Seoul, Korea
2005	"Economy of Green Building," Annual Green Building Council Meeting, Seoul, Korea
2005	"Green Innovation in Architecture," Ho-Seo University, Chun-An, Korea
2005	"Green Building and Design Innovation," Korea University, Seoul, Korea
2005	"Attributes of Future Buildings," Kwang-Woon University, Seoul, Korea
2005	"Attributes of Future Buildings," Kun-Kook University, Seoul, Korea
2002	"Intelligence in Residential Buildings," IBS Korea, Seoul, Korea
1999	"Intelligent Building," Intelligent Building Symposium, Real Estate Developers Association of Singapore (REDAS), Singapore (Keynote Speech)

#### University Services

2023	Fulbright Campus Committee, International Institute
2023	College Representative, Senate Assembly
2015 - 2023	2G Admission Committee, Architecture Program
2019 - 2021	Lecture Review Committee, Architecture Program
2016	Fulbright Campus Committee, International Institute
2005 - 2012	Executive Committee, Center for Korean Studies
2000 - 2008	University Senate Assembly, University of Michigan
1999 - 2000	Academic Advisory Committee for University Provost
2003	Fulbright Campus Committee

2004	Housing Director Search Committee
2001 - 2004	Advisory Committee Student Affairs Committee
1995 - 2003	Arboretum Academic Advisory Committee

### **Publications**

Jong-Jin Kim, "Energy Self-Sufficiency of a Tall Building with BIPV," **Submitted to the 6th ICCA+U Conference**, June 2023.

Jong-Jin Kim, "Solar Technology Integration on Building Facades," **The Plan Journal**, Vol 7, Issue 1. pp. 107-130, 2022.

Jong-Jin Kim, "Energy Production Alternatives for Tall Buildings," **Proceedings of 5th ICCA+U Conference**, May 2022.

Jong-Jin Kim, "Action-Based Solar Education in Architecture," **Sustainable Cities and Society**, Vol. 60, Elsevier, September 2020.

Jong-Jin Kim, "Field-Classroom Interactive Solar Education," **Proceedings of the Passive and Low Energy Architecture (PLEA) Conference**, Hong Kong, December 2018 (Shortlisted for the Best Paper Award)

Jong-Jin Kim, "Energy and Form Revisited: Optimal Building Form for Zero Energy Building," **Proceedings of the Passive and Low Energy Architecture (PLEA) Conference**, Hong Kong, December 2018

Jong-Jin Kim and Will Laughner, "Feasibility of Rainwater Harvesting in US," **Proceedings of 2017 ARCC Conference**, Salt Lake City, Utah, June 2017

Jong-Jin Kim and Anna Latos, "Non-Drinking Water Self-Sufficiency of Buildings Utilizing Rainwater Harvesting," **WIT Transaction on the Built Environment**, Vol 165, 2016, Southampton, UK

Sung-Woo Cho, Jong-Jin Kim, "Zero Energy Potential of High-Rise Residential Buildings," **Journal of Asian Architecture and Building Engineering**, Vol 14 No3, Tokyo, Japan, September 2015

Jong-Jin Kim, Victoria McGovern and Anna Latos, "Energy demand and production synchronization for zero-energy buildings," **Book of Abstract**, Energy and Materials Research Conference, Madrid, Spain, February, 2015.

Jong-Jin Kim, "Energy self-sufficiency of office buildings in four Asian cities," **Journal of Advancement in Energy Research**, Vol 2, No 1 Techno Press, 2014

Jong-Jin Kim, "Feasibility of Zero energy office buildings in four Asian cities," **Proceedings of the International Conference on Energy Research**, Seoul, Korea, August 2013

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

Jong-Jin Kim, "Policies and Market Demand Survey on Green Renovation of Existing Buildings," Technical Report to the Korean Institute of Architects, January 2013

Jong-Jin Kim and Jessica Gerow, "Feasibility of Zero Energy Homes," Proceedings of the ICS-DEC Conference, Fort Worth, Texas, November 2012

Hongyi Cai, Jong-Jin Kim and Paul Green, "Computational Assessment of Text Legibility in Lecture Halls," **Indoor and Built Environment**, 2011

Jong-Jin Kim, Sung Kwon Jung and Jeong Tai Kim, "Wireless Monitoring of Indoor Air Quality by a Sensor Network," **Indoor and Built Environment**, Vol. 19, February, 2010 (Best 20 Paper of the Journal)

Jong-Jin Kim, Sung Kwon Jung, Yoon Seok Choi and Jeong Tai Kim, "Optimization of Photovoltaic Integrated Shading Devices," **Indoor and Built Environment**, Vol. 19, February, 2010 (Best 50 Paper of the Journal)

Jinwoo Moon and Jong-Jin Kim, "ANN Based Thermal Control Model for Residential Buildings," Building and Environment Journal, **Building and Environment**, Vol. 4/17, March 2010

Jong-Jin Kim and Jinwoo Moon, "Impact of Insulation on Building Energy Consumption," Proceedings of the IBPSA Conference, Glasgow, Scotland, July 2009

Jinwoo Moon and Jong-Jin Kim, "Application of Artificial Neural Network in Residential Thermal Control," Proceedings of the IBPSA Conference, Glasgow, Scotland, July 2009

Soo-Young Kim and Jong-Jin Kim, "The Impact of Daylight Fluctuation on a Daylight Dimming Control System," **Energy and Buildings**, June 2007

Soo-Young Kim and Jong-Jin Kim, "Influence of Light Fluctuation on Occupant Visual Performance," **Building and Environment**, July 2007

Soo-Young Kim and Jong-Jin Kim, "Effect of Fluctuating Illuminance on Visual Comfort in a Small Office Environment," **Indoor and Built Environment**, 2007

Jong-Jin Kim, "IAQ Monitoring System," Technical Report to LG Construction Co, 2005

Jong-Jin Kim, "Design of Environmental Educator Center," Technical Report to American Youth Foundation, 2004

Kearney, J. and Brower, R. and Jong-Jin Kim, "Field Measurement of Indoor Air Quality: University of Michigan Campus," Proceedings of 2003 American Solar Energy Conference, Austin, Texas, 2003

Chang, J.D, Hwang, J.H. and Jong-Jin Kim, "Underfloor Air-Supply System," Proceedings of the Indoor Air 2002 Conference, Monterey CA, 2002

Hwang, J.H., Chang, J.D. and Jong-Jin Kim, "A Multi-Zone Home Climate Control Systems for Single-Family Homes," Proceedings of the Indoor Air 2002 Conference, Monterey CA, 2002

Jong-Jin Kim, "Sustainable Built Environment," **Knowledge for Sustainable Development: An Insight into the Encyclopedia of Life Supporting Systems**, Chapter 19.2, Volume III, EOLSS Publisher Co. London, 2002

Jong-Jin Kim and S.D. Park, "Greening of an Office Building: a Real-world Experience," Sri Lanka 2000 Conference, Sri Lanka, 2000

K.B Jeong and Jong-Jin Kim, "Individual Air Distribution Control Systems," Indoor Air 99 Conference: International Conference on Indoor Air Quality, Edinburgh, United Kingdom, 1999

K. B. Jeong and Jong-Jin Kim, "Daylighting Light-Pipe Systems," Proceedings of Solar World Congress, Taejun, Korea, 1997

K. B. Jeong and Jong-Jin Kim, "Transmission Efficiency of Light-Pipe Systems," Proceedings of Solar World Congress, Taejun, Korea, 1997

K.B. Jeong and Jong-Jin Kim, "A New Light-Pipe System," **Journal of Architectural Institute of Korea**, Seoul, Korea, 1998

J.H. Hwang and Jong-Jin Kim, "Air Flow Patterns of Personalized Ventilation Systems," **Journal of Architectural Institute of Korea**, Seoul, Korea, 1997

Jong-Jin Kim, "Intelligent Building Systems," **Time Saver Standards**, 7th edition, McGraw Hill, NY, 1997

Jong-Jin Kim, "Intelligent Buildings: A Case of Japanese Buildings," **Journal of Architecture**, Royal Institute of British Architects, United Kingdom, 1996

Jong-Jin Kim, "Green Principles in Architecture," **Journal of Architecture and Building Science** Vol. 39 No 10, Architectural Institute of Korea, 1995

Jong-Jin Kim, "Optimal Placement of Low-E Coating in Insulated Glazings," Proceedings of the Solar '95 Conference, Minneapolis, 1995

Jong-Jin Kim, "Intelligent Building Technologies in Japan," Research Report to Japan Technology Management Center, University of Michigan, 1994

Jong-Jin Kim and Colin Clipson, **Design and Technological Innovation for the Environment**, Proceedings of the 12th Annual ACSA Technology Conference, ACSA, 1994

Jong-Jin Kim, et. al., "A Conceptual Framework for Dynamic Control of Daylighting and Electric Lighting Systems," 1993 IEEE Conference, Toronto, Canada, 1993

Jong-Jin Kim, "Design of a Window as the Key Component of the Luminous Environment," 11th ACSA Technology Conference, Tempe, Arizona, 1993

Jong-Jin Kim, et. al., "Application of Fluid Mapping and Wind Tunnel Techniques for Evaluating Window Flow Patterns of an Atrium," Solar 92: National Passive Solar Conference, Cocoa Beach, Florida, 1992

Jong-Jin Kim, "Modeling of Reflected Solar Radiation from Adjacent Building Surfaces," Solar 92: National Passive Solar Conference, Cocoa Beach, Florida, 1992

Jong-Jin Kim, "Removing the Wall between Art and Science in Architecture," 10th ACSA Technology Conference, San Diego, CA, 1992

J. H. Huh, H.F Wu and Jong-Jin Kim, "Control Strategies for Switchable Glazing in Office Buildings," International Solar Energy Conference, Denver, Colorado, 1991

Jong-Jin Kim, "A HyperCard-Based Active Solar Energy System Simulator (ASESS)," Solar 90 Conference, Austin, Texas, 1990

Jong-Jin Kim, "Daylight Utilization in a Hot-Arid Climate," Building Simulation 89 Conference, Vancouver, Canada, 1989

Jong-Jin Kim, et. al., "Determining Daylight Illuminance in Rooms Having Complex Fenestration Systems," 1986 International Daylighting Conference (Proceedings II), ASHRAE, 1989

R. Sullivan, et. al, and Jong-Jin Kim, "An Indices Approach for Evaluating the Performance of Fenestration Systems in Residential Buildings," **ASHRAE Transactions**, 1988

Jong-Jin Kim, "Lighting Simulation in Building Performance Appraisal," Electronic Imaging '87, International Electronic Imaging Exposition and Conference, Vol. 2, Boston, MA, 1987

Jong-Jin Kim, et. al., "Development of Regression Equations for a Daylight Coefficient-of-Utilization Model," 1986 International Daylighting Conference (Proceedings II), ASHRAE, 1986

M. Spitzglas, et. al, and Jong-Jin Kim, "Scale Model Measurements for a Daylighting Photometric Data-Base," **Journal of the Illuminating Engineering Society**, Vol. 15, No. 1, 1985

Ed Arens, et. al and Jong-Jin Kim, **SUN, WIND, AND COMFORT**: A Study of Open Space and Sidewalks in Four Downtown Areas, Institute of Urban and Regional Development, College of Environmental Design, University of California, Berkeley, 1984

Jong-Jin Kim and Stephen Selkowitz, "A New Coefficient of Utilization Model for Daylighting Calculation in Energy Analysis Programs," 1983 International Daylighting Conference, Phoenix, AZ, 1983

Stephen Selkowitz and Jong-Jin Kim, "The DOE-2 and SUPERLITE Daylighting Programs," 7th National Passive Solar Conference, Knoxville, TN, 1982

Francisco Arumi and Jong-Jin Kim, "Parametric Studies on the Thermal Response of a Direct Gain Room to the Distribution of Massive Elements on the Walls," 5th National Passive Solar Conference, Boston, MA. 1980