

CLAYTON MILLER (Dr)

Doctorate of Science (Dr. sc. ETH Zürich) ETH Zürich; MSc. (Building) NUS; MAE (Architectural Engineering) and BSc (Architectural Engineering), University of Nebraska



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ACADEMIC QUALIFICATIONS:

- BSc. (Architectural Engineering) (2006), University of Nebraska, USA
- MAE (Architectural Engineering) (2007), University of Nebraska, USA
- MSc (Building) (2011), National University of Singapore, Singapore
- Dr. sc. ETH Zürich (2016), ETH Zürich, Switzerland

EMPLOYMENT RECORD:

- Mechanical Engineer, Leo A Daly Co., Omaha, USA (2007 – 2008)
- Researcher Engineer, Ezenics, Omaha, USA (2008 - 2009)
- Chief Technology Officer (CTO), Optiras Pte. Ltd., Singapore (2010 - 2012)
- Assistant Professor, National University of Singapore (NUS) (2017 - Present)

PROFESSIONAL/CONSULTING ACTIVITIES:

- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Student Member, 2004 - 2007, 2012 – Present
- ASHRAE Singapore Chapter Board of Governors Member and Student Activities Chair, 2011 - 2013
Associate Member, 2007 – 2012
- International Building Performance Simulation Association (IBPSA) Member, 2007 – Present
- IBPSA Co-founder of Singapore Chapter, 2012 – 2014
- Fulbright Association (Singapore) Webmaster, 2013 – Present
- Fulbright Executive Committee Member, 2012 – 2013
- U.S. Green Building Council (USGBC) Nebraska Flatwater Chapter Board of Directors, 2008 – 2009
- Society of American Military Engineers (SAME) Member, May 2007 – 2010; Student Member, 2005 – 2007; Student Chapter President, 2005 – 2006
- Architectural Engineering Institute (AEI); Student Member, 2005 – 2007; National Student Conference Planning Committee Member, 2007

UNDERGRADUATE TEACHING:

- PF2501 Structural Systems
- PF4501 Total Building Performance

GRADUATE TEACHING:

- BPS5223 Building Energy Performance - Passive Systems
- BPS5222 Indoor Environmental Quality
- BPS5228 Advanced Building Materials and Structures

RESEARCH INTERESTS:

- Data science for building performance
- Whole building simulation
- Environmental quality
- Visual analytics
- Internet-of-Things (IoT) analytics

SELECTED PUBLICATIONS:

- Miller, C., Meggers, F., 2017. The Building Data Genome Project: An open public data set from non-residential building electrical meters. Presented at the CISBAT 2017, Lausanne, Switzerland.
- Miller, C., Nagy, Z., Schlueter, A., 2017. A review of unsupervised statistical learning and visual analytics techniques applied to performance analysis of non-residential buildings. *Renewable and Sustainable Energy Reviews*. doi:10.1016/j.rser.2017.05.124
- Miller, C., Thomas, D., Kämpf, J., Schlueter, A., 2017. Urban and building multiscale co-simulation: case study implementations on two university campuses. *Journal of Building Performance Simulation* 0, 1–13. doi:10.1080/19401493.2017.1354070
- Miller, C., Nagy, Z., Schlueter, A., 2015. Automated daily pattern filtering of measured building performance data. *Automation in Construction* 49, Part A, 1–17. doi:10.1016/j.autcon.2014.09.004
- Miller, C., Schlueter, A., 2015. Forensically discovering simulation feedback knowledge from a campus energy information system, in: *Proceedings of the 2015 Symposium on Simulation for Architecture and Urban Design (SimAUD 2015)*. Presented at the Symposium on Simulation for Architecture and Urban Design (SimAUD), SCS, Washington DC, USA, pp. 33–40. doi:10.13140/RG.2.1.2286.0964

AWARDS:

- ETH Zürich Architecture and Technology Fellowship, 2012-2016
- ASHRAE/IBPSA Conference Student Travel Grant, 2014
- National University of Singapore (NUS) Research Scholarship, 2010
- U.S. Fulbright Student Fellowship to the Republic of Singapore, 2009-2010
- Univ. of Nebraska Architectural Engineering Outstanding MAE Student Award, 2007
- ASHRAE Nebraska Chapter Scholarship, 2005-2006
- Walter Scott Jr. Scholarship, 2002-2006
- University of Nebraska Regents Scholarship, 2002-2006