

KEITH CHERKAUER

Education:

Ph.D. 2001, University of Washington, Seattle, WA, Civil and Environmental Engineering.

M.S. 1994, University of Colorado, Boulder, CO, Aerospace Engineering.

B.A. 1992, Augustana College, Rock Island, IL, Physics.

Academic Experience:

Associate Professor, Dept. of Agricultural and Biological Engineering, Purdue University (August 2011 – present)

Assistant Professor, Dept. of Agricultural and Biological Engineering, Purdue University (2004 – 2011)

Non-academic Experience:

Research Scientist, Dept. of Civil and Environmental Engineering, University of Washington (2001 - 2003)

Research Assistant, Dept. of Aerospace Engineering, University of Colorado (1994-1995)

Certifications or Professional Registrations:

Current Membership in Professional Organizations:

1. American Geophysical Union (AGU)
2. American Meteorological Society (AMS)
3. American Society of Agricultural and Biological Engineers (ASABE)
4. American Water Resources Association (AWRA)
5. Indiana Water Resources Association (IWRA)
6. International Association for Great Lakes Research (IAGLR)

Honors and Awards:

1. NASA New Investigator, 2004 -2008
2. Fulbright Scholar – Hungary, 2014-2015

Service activities (within and outside of the institution):

1. Convener for “The Potential Impacts of Climate Change in the Great Lakes,” 56th Annual Conference, IAGLR, West Lafayette, IN, 2013.
2. College of Agriculture Curriculum and Student Relations Committee (CSRC), 2013-2016.
3. Co-Convener for “Food, Energy, and Water Nexus: Synergies and Tradeoffs,” American Geophysical Union 2016 Fall Meeting; December 12-16, San Francisco, CA, 2016.
4. Agricultural and Biological Engineering Academic Programs Committee, 2011-present; co-chair 2017-2018; chair 2018-present.
5. Agricultural and Biological Engineering ABET Committee, 2011-present.
6. College of Engineering ECC, 2016-present
7. Search committee for an ABE Faculty Position in Digital Agriculture, Member 2017-present
8. College of Engineering Undergraduate Chairs Committee, 2018-present
9. Proposal reviews ad-hoc and panel participation for NSF, NASA, USDA, USGS and Hungarian Fulbright Office, various.

10. Member of the IWRA annual meeting advisory committee for 2017 and 2018 summer meetings.
11. Executive board members for the Indiana Climate Change Impacts Assessment. 2017-present.
12. Member of the Indiana Water Monitoring Council's Groundwater Focus Committee, 2014-present.

Publications (most significant out of 15 published since 2013):

1. Tan, J., K. A. Cherkauer, and I. Chaubey (2015). Using hyperspectral data to quantify water quality parameters in the Wabash River and its tributary, Indiana. *International Journal of Remote Sensing*, 36(21), 5466-5484.
2. Hearst, A. and K. A. Cherkauer (2015). Extraction of Small Spatial Plots from Geo-Registered UAS Imagery of Crop Fields. *Environmental Practice*, 17(3), 178-187. Doi:10.1017/S1466046615000162.
3. Wang, R., L. C. Bowling, and K. A. Cherkauer (2016). Estimation of the Effects of climate variability on Crop yield in the Midwest USA. *Agricultural and Forest Meteorology*, 216, 141-156.
4. Wang, R., K. A. Cherkauer and L. C. Bowling (2016). Corn response to climate stress detected with satellite-based NDVI time series. *Remote Sensing*, 8(4), 269. doi:10.3390/rs8040269.
5. Tan, J., K. A. Cherkauer, and I. Chaubey (2016). Developing a comprehensive spectral-biogeochemical database of Midwestern rivers for water quality retrieval using remote sensing data: A case study of the Wabash River and its tributary, Indiana. *Remote Sensing*, 8(6), 517. doi:10.3390/rs8060517.
6. Wang, R., L. C. Bowling, K. A. Cherkauer, C. Raj, Y. Her, and I. Chaubey (2017). Biophysical and hydrological effects of future climate change including trends in CO₂, in the St. Joseph River watershed, Eastern Corn Belt. *Agricultural Water Management*, 180(B31), pp 280–296. <http://dx.doi.org/10.1016/j.agwat.2016.09.017>.
7. Rainey, K. M., A. Xavier, B. P. Hall, K. A. Cherkauer and A. Hearst G (2017). Genetic Architecture of Phenomic-enabled Canopy Coverage in Glycine max. *Genetics*. <https://doi.org/10.1534/genetics.116.198713>.
8. Raj, C., I. Chaubey, R. Muenich, K. A. Cherkauer, P. Gassman, C. Kling, and I. Panagopoulos (2017). Influence of bioenergy crop production and climate change on ecosystem services. *Journal of the American Water Research Association (JAWRA)*, 1-13. <https://doi.org/10.1111/1752-1688.12591>.
9. Wang, L., K. A. Cherkauer, and D. Flanagan (2018). Impacts of Climate Change on Soil Erosion in the Great Lakes Region. *Water*, 10, 715; doi:10.3390/w10060715.
10. Chin, N., K. Byun, A. F. Hamlet, and K. A. Cherkauer (2018). Assessing the Potential Impacts of Climate Change on Winter Tourism in the Great Lakes. *Journal of Hydrology: Regional Studies*, 19, pp. 42-56. <https://doi.org/10.1016/j.ejrh.2018.06.005>.

Briefly list the most recent professional development activities:

1. Participated in Workshop on Phenotyping Methods in 2016.
2. Regular attendance and presentations at Annual AGU, AMS, ASABE and IWRA meetings.
3. Presented at the Global Water Security conference, Hyderabad, India in 2018.
4. Participated in Purdue University sponsored workshops on Mentoring and Leadership.