

**Kerry E. Kelly, P.E., Ph.D.**  
University of Utah

## **A. PROFESSIONAL PREPARATION**

Purdue University, West Lafayette, IN	Chemical Engineering	B.S., 1988
University of North Carolina Chapel Hill, Chapel Hill, NC	Environmental Engineering	M.S. 1991
University of Utah	Environmental Engineering	PhD 2015

## **B. APPOINTMENTS**

2015-present, Assistant Professor, Chemical Engineering, University of Utah  
2013-present, Associate Director, Program for Air Quality, Health and Society  
2010-2015, Research Associate and Assistant Director, Utah Clean Coal Program, Department of Chemical Engineering and Institute for Clean & Secure Energy, University of Utah  
2002-2010, Associate Director, Institute for Combustion & Energy Studies, University of Utah  
2000-2010, Research Engineer, Institute for Combustion & Energy Studies, University of Utah  
1996-2000, Research Engineer, University of Tennessee  
1994-1996, Scientist, Fraunhofer Institute for Atmospheric Environmental Research (Germany)  
1992-1993, Process Engineer, Radian Corp.

## **C. PRODUCTS**

### **i) Directly Related to Project**

- T. Sayahi, A. Butterfield, **K.E. Kelly** (2019) Long-term field evaluation of the Plantower PMS low-cost particulate matter sensors, *Environmental Pollution*, 245, 932-940.
- K. Le, K. Tingey, T. Becnel, P. Giallardon, T. Butterfield, **K.E. Kelly** (2018) Building air quality sensors & inspiring citizen scientists, *Chemical Engineering Education*, 52, 3, 193-201. <http://journals.fcla.edu/cee/article/view/106570/102014>
- K.E. Kelly**, J. Whitaker, A. Petty, C. Widmer, A. Dybwad, D. Sleeth, R. Martin, A. Butterfield (2017) Ambient and laboratory evaluation of a low-cost particulate matter sensor, *Environmental Research*. 221, 491-500. <http://dx.doi.org/10.1016/j.envpol.2016.12.039>
- K.E. Kelly**, R. Altizer, J. Husle, B. Mohanty, J. Ferraro, C. Haltiner, L. Banks (2015) BadAirDay.org This video game allows players, as mayor, to see the effects of policy and personal decisions on Utah's air quality. It is based on the state's air emissions inventory and was developed in partnership with the Utah Division of Air Quality, the Utah Health Department, Breathe Utah, and the Utah Education Network.
- K.E. Kelly**, R. Kotchenruther, R. Kuprov, G.D. Silcox (2013) Receptor model source attributions for Utah's Salt Lake City airshed and the impacts of wintertime secondary ammonium nitrate and ammonium chloride aerosol, *Journal of the Air & Waste Management Association*, 63:5, 575-590.

## ii) Additional Significant Publications

- G.D. Silcox, **K.E. Kelly**, E.T. Crosman, C.D. Whiteman, B.L. Allen (2012) Wintertime PM<sub>2.5</sub> concentrations during persistent, multi-day cold-air pools in a mountain valley, *Atmospheric Environment*, 46 17-24.
- K. Le, T. Butterfield, **K.E. Kelly**, Citizen Scientists Engagement in Air Quality Monitoring, *Proc. ASEE Annual Meeting*, June 23 – 27, Salt Lake City, UT.
- M. Baasandorj, S.W. Hoch, R. Bares, J.C. Lin, S.S. Brown, D.B. Millet, R. Martin, **K.E. Kelly**, C. Jaramillo, K.J. Zarzana, W.P. Dube, G. Tonnesen, C.D. Whiteman, J. Sohl (2017) Contribution of early morning and nighttime chemistry to wintertime PM<sub>2.5</sub> pollution episodes in Salt Lake Valley, Utah. *Environmental Science & Technology*. 51(11):5941-5950. doi: 10.1021/acs.est.6b06603.
- J. Wilkey, **K.E. Kelly**, I.C. Jaramillo, J.P. Spinti, T. Ring, M. Hogue (2016) Predicting emissions from oil and gas operations in the Uinta Basin, *Journal of the Air & Waste Management Association*. 66(5):528-45. doi: 10.1080/10962247.2016.1153529.
- K.E. Kelly**, Z. Luo, Tao Wang, E.G. Eddings (2015) Joint NSF-NSFC workshop on combustion related to sustainable energy, *Combustion Science & Technology*, <http://www.tandfonline.com/doi/full/10.1080/00102202.2015.1089239>

## D. SYNERGYSTIC ACTIVITIES

- State policy leadership: Utah State Air Quality/Air Quality Policy Board (2009 – present).
- Co-founded the University of Utah's Program for Air Quality, Health and Society.
- Leads HiGear, a camp for high-school women to introduce engineering concepts through hands-on activities.
- Local policy Leadership: Salt Lake City Mayor's Air Quality Advisory Committee
- Professional Leadership: AIChE Environmental Division Area Chair