



**Tony E. Grift**, associate professor of agricultural and biological engineering, University of Illinois, Urbana, is being recognized for his contributions in teaching, research, and service.

Together with graduate students and post-doctoral researchers, Grift has conducted extensive research on the development of uniformity controlled granular fertilizer spreaders using a unique optical feedback system. He spearheaded the measurement of energy requirements for various operations in biomass feedstock production. In the area of high-throughput phenotyping, Grift developed a Corn Root Imaging Box (CRIB) which enables imaging of 100 corn roots per hour. He developed innovative methods of characterizing corn root complexity, as well as a new definition of root angle. Currently, Grift is pioneering On-The-Implement-Intelligent-Soil-Sensing (OTIISS) methods which include acoustics, shear wave technology, and electrical impedance measurement. Additionally, Grift has taught thousands of undergraduate and graduate students in the areas of agricultural machinery, (electro)-hydraulics, instrumentation, and machine vision.

Grift is author or coauthor of more than 100 peer reviewed articles, book chapters, and other publications. Grift served as a guest editor on three special issues of *Resource* magazine. For his service to the ASABE, he received an IET Leadership Citation, and two ASABE Presidential citations. He served on and chaired a range of committees within the ASABE, and he is a board member of Biosystems Engineering. He has also written a number of op-ed articles in *Resource* magazine, most notably "Metric Eye for the AgE Guy" in which he advocates the urgent eradication of the English unit system in America's educational system. Grift has received various awards for research such as dual ASABE Superior Paper Awards, an ASABE IET Meeting paper award, and a EurAgEng Outstanding Paper award, all as first author. He received two departmental teaching awards as well as a North American Colleges and Teachers of Agriculture (NACTA) Educator Award.

A 21-year ASABE member, Grift initiated the ASABE Student Robotics Design competition in 2007 and led it for nine years. This competition started with three teams and over the years has seen remarkable growth in both participation and technical sophistication. The ASABE robotics competition has been one of the highlights of his career, as it ties in with his belief that the future of humanity depends on unleashing creativity in young people in general and engineers in particular.