

Faculty Senate Speaker Series
Spring 2017 Award Recipient

Dr. Jonathan W. Naughton

Professor of Mechanical Engineering
Director, Wind Energy Research Center
University of Wyoming

Tuesday, April 25, 2017
4:10 p.m.
Classroom Building, Room 310
Laramie Campus

“Wind Energy – Benefit or Liability”

Wind Energy is a controversial topic in Wyoming. While it promises to add much needed revenue to local economies and some to the State of Wyoming, it also is considered to be a primary reason that coal production is down and to impact the viewscapes that Wyoming residents enjoy. At the larger scale, the proposed integration of grid operations across the West to enable better utilize the energy production facilities available and to allow connections between resource rich areas such as Wyoming with the high energy demand regions of the West Coast is also generating praise and controversy. All of these issues tend to draw visceral responses in polar directions that seldom help to provide a useful dialogue. In this talk, the issues surrounding renewable energy, and wind energy in particular, and the growth of grid integration will be discussed. Work at the University of Wyoming that is addressing some of these issues will also be presented.

Jonathan W. Naughton has been a faculty member in the Mechanical Engineering Department at the University of Wyoming since 1997 and is currently a Professor and Director of the Wind Energy Research Center. Dr. Naughton obtained his B.S. from Cornell University and his Ph.D. from the Pennsylvania State University in the area of compressible fluid dynamics. Prior to joining the UW faculty, Dr. Naughton worked at NASA-Ames Research Center for four years. During the 2004-2005 academic year, Dr. Naughton was a visiting faculty at Chalmers Technical University in Gothenberg, Sweden where he worked with the turbulence research laboratory. Dr. Naughton's current research includes the development of skin-friction measurement techniques and turbulent flow measurement, modeling and control with applications to jet flows, wake flows, drag reduction, unsteady blade aerodynamics, and atmospheric boundary layer modeling. As the Wind Energy Research Center has grown, Dr. Naughton spends an increasing amount of time interacting with industry, government labs, state organizations, and academic institutions involved in developing the understanding and technology necessary for expanding the penetration of wind energy into the electricity market with a particular focus on the development of Wyoming wind resources. In 2015, faculty from the center were awarded a 4.25 million dollar grant considering the interaction between wind farm efficiency, transmission stability, and economics of transmission.

Dr. Naughton is an active member of the American Physical Society, the American Helicopter Society, and the American Institute of Aeronautics and Astronautics. In the latter society, Dr. Naughton is an Associate Fellow and served as the Chair of the Aerodynamic Measurement Technology Technical Committee from 2008-2010. He is married to Leann and has two sons, Kian and Evan. Dr. Naughton is also an Alpine Trainer with the Professional Ski Instructors of America - Rocky Mountain Division.