

DEPARTMENT OF MECHANICAL ENGINEERING

WILLIAM MAXWELL REED SEMINAR SERIES

“University of Montana and Aerial Firefighting Use and Effectiveness (AFUE) Data Classification and Analytics Investigation Project”

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University of Montana

Abstract: The US Forest Service Aerial Firefighting Use and Effectiveness (AFUE) study initiated in 2013, provides a first-of-its-kind baseline information gathering and analysis effort regarding when and why aviation resources are utilized in responding to wildfires while evaluating mission completion performance. This information is being used to inform future analyses on operational use and fleet investment decisions. Due to AFUE’s extensive data collection efforts and on-going analysis projects, the program has partnered with multiple institutions. Collaborating on parallel programmatic objectives within the professional and academic communities, both parties benefit by gaining access to more information and resources that are required to address current challenges. Furthermore, these collaborations foster organizational and skills development resulting in a more resilient, independent, and cohesive team to address future goals.

This presentation will focus on the work being done at the University of Montana in collaboration with the AFUE program. This project focuses on four areas; 1) data integration, normalization, and management; 2) supervised and unsupervised classification for fire perimeter determination; 3) 2D and 3D weather modeling and enhanced forecasting; 4) high-resolution fire modeling.

Bio: Jennifer Fowler started working at the University of Montana in the Department of Physics and Astronomy in 1998. She is the director of the UM’s Autonomous Aerial Systems Office and assistant director of the Montana Space Grant Consortium. Her research interest lies in atmospheric data collection and weather modeling. She has 15 years of experience with field campaigns and collaborations around the world. Ms. Fowler holds a BA in physics from Rutgers University, Douglass College and has been working on a Master’s Degrees in Business Analytics from the University of Montana. Ms. Fowler is currently serving on the Montana Governor’s Unmanned Aerial Systems Council and is the principle investigator of numerous grants.

Date: Friday, Sep. 25th

Place: <https://uky.zoom.us/j/92940732923>

Time: 3:00PM EST

Contact: Dr. Alexandre Martin 257-4462

Meet the speaker and have refreshments
Attendance open to all interested persons