

The 2nd UAS Integration for Fire Operation Workshop

(High Res. Data and Digital Twin for Wildland Fires)

1. The goal of our workshop is to bring together UAS developers and users, prescribed fire or cultural burn operators, wildfire fighters, and emergency response agency for idea exchange and discussions on state of the art and community needs for fire/smoke/wind data and digital twin.
2. Time
12:30 PM – 3:30 PM CDT, 2024/10/30 (Wednesday)
3. Online Meeting
Zoom Meeting: <https://kansas.zoom.us/j/82819629616> (Passcode:4416)
4. Contact
Dr. Haiyang Chao, Associate Professor, Aerospace Engineering Department,
University of Kansas. (E): chaohaiyang@ku.edu. (T): 785-864-2968
5. Online Discussion GoogleDoc
https://docs.google.com/document/d/1UajKvUwSrxarLoBwzfZks196F57PinO1S_8cRvnOG88/edit
6. Workshop Program
Introduction & Opening (12:30-12:45 CDT)

Forum 1: Fire data standards for model validation (12:45-1:45 CDT)

12:45-1:00 PM, “Fire and wind metrics measurements during prescribed grass fires using small UAS”, Haiyang Chao (KU) & Ming Xin (Mizzou)

1:00 – 1:15 PM, “Data needs for fire model evaluation”, William Mell (USFS) & Derek McNamara (Geospatial Measurement Solutions, LLC)

1:15-1:45 Discussion: data types, fuel/fire/wind/smoke metrics, and data collection suggestions for various user groups.

Forum 2: Fire spread model and digital twin (1:45-2:30 PM CDT)

1:45-2:00 PM, “Fire spread model and data assimilation”, Xiaolin Hu (Georgia State U.)

2:00-2:30 PM, Discussion: digital twin requirement from different user groups, gaps in existing fire spread models.

Forum 3: Community data and modeling needs (2:30-3:15 PM CDT)

2:30-2:45 PM “Cultural burn and prescribed fires”, Melinda Adams (KU) and Sheena Parsons (Kansas Biological Survey)

2:45-3:15 PM Discussion: shared and diverse community needs for fire data, model, and digital twin (e.g., prescribed fire vs. cultural burns vs. wildfires).

Conclusion and Summary (3:15-3:30 PM CDT)

7. Workshop Weblink: <https://cusl.ku.edu/UASFireWorkshop2024>