



# ASCLD FRC Lightning Talks

## *Drone Forensics*

Thursday October 14<sup>th</sup>, 2021, 1:00 EST, WebEx

Register at: <https://www.asclد.org/forensic-research-committee/>



### *Challenges and Consolidation of Digital Evidence Extracted from UAVs* Fahad E Salameh, Assistant Professor, Naif Arab University

UAVs process a large amount of data. This indicates that there are various components which play crucial role in the digital forensic examination. Although current digital forensic tools face several challenges pertaining to file encryption and visualization of extracted evidence, there are many open-source tools and techniques that could corroborate the UAV forensic process. In this talk, the audience will be introduced to the top challenges related to UAV forensic analysis from different angles. 1) The presence of all and partial UAV components in the incident scene; 2) challenges related to the digital forensic tools and their ingesting modules in identifying the type of digital evidence; 3) challenges related to maintaining the integrity of extracted digital evidence from UAVs.



### *Drone Information for Forensic Investigations* Shahrzad Zargari, Senior Lecturer, Sheffield Hallam University

This talk aims to provide a brief introduction to drones explaining the stages of forensics investigations in relation to Drones. A number of secondary datasets gained from VTO Labs (recommended by NIST) have been utilised in this study and the results will be discussed. This study found that drones have the ability to hold a wealth of evidence that could potentially be very useful to assist forensics investigations including the flight path of the drone, date and time of flight, altitude, home-point and alerts to inform whether the drone was near restricted airspace such as airports (No Fly Zones). In relation to Anti-Forensics techniques, this study found that it is possible for the manufacturers to build in Anti-Forensics software into their devices, but it would not be possible for a consumer to utilise such techniques.



### *What can Drone Multispectral Data tell us about Ground Disturbances?*

Benjamin Rocke, PhD Student, Queen's University Belfast

Multispectral drone data can resolve ground disturbances by detecting changes in plant health and micro terrain. Data from 12 sites in 3 countries demonstrates the usefulness and limitations of this diverse tool which can be deployed quickly and non-invasively in the forensic search.