Aerial archaeology using UAV

Paweł Waligóra

Institute of Aeronautics and Applied Mechanics, Faculty of Power and Aeronautical Engineering, Warsaw University of Technology, Warsaw, Poland Pawel.Waligora@pw.edu.pl

Abstract:

Aerial archaeology using unmanned systems (UAV) introduces revolutionary changes in the methods of documenting and analyzing archaeological sites. This presentation focuses on the modern methodology of applying unmanned systems in archaeological research, with an emphasis on soil, vegetation, and morphological markers that facilitate the identification and interpretation of structures hidden beneath the surface. Detailed examples of using UAVs for terrain mapping, landscape change detection, and generating 3D models will be discussed, enabling much more precise site analysis and effective cultural heritage management. This lecture will present participants with the potential of unmanned systems in field research, offering an overview of current technologies, methods, and the latest advancements in this dynamically evolving interdisciplinary field.