

Assoc. Prof. Ahmed Taha: "Digital Image Forgery Detection"
Topic abstract

Image forgery detection is a critical area in digital forensics that focuses on identifying manipulated or tampered images, which can be used to mislead, deceive, or commit fraud. With the increasing accessibility of advanced editing tools and AI-generated content, the need for reliable image authentication techniques has grown significantly. This presentation explores various methods of image forgery detection, including pixel-level analysis, format-based techniques, camera-based techniques, physically-based techniques, and geometrically based techniques. The goal is to provide a comprehensive overview of current challenges and solutions in the fight against digital image tampering, emphasizing the importance of forensic accuracy in legal, journalistic, and security contexts.