



FDIAI REGION II TRAINING



Emerging ALS Technology

Presenter: Adria Gharati, CLPE

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Alternate Light Sources (ALS) have become indispensable in forensic latent print detection, offering the ability to enhance ridge detail on a wide range of substrates through selective wavelength illumination. This training session is designed for latent print examiners and crime scene investigators seeking to optimize ALS applications in casework. The course begins with a comprehensive review of ALS fundamentals, including the principles of wavelength emission across the UV-visible spectrum and the role of signal-to-noise ratio (SNR) in achieving optimal contrast. Participants will explore the mechanisms of fluorescence and absorption, learning how these processes interact with common fingerprint development reagents such as cyanoacrylate, Rhodamine 6G, Basic Yellow 40, Ardrox, MBD, Ninhydrin, 1,2- Indanedione, and DFO.

A key focus will be on the dynamic relationship between substrate characteristics such as color, texture, inherent fluorescence, and reflectivity and the selection of both chemical treatments and illumination wavelengths. Through detailed discussion and visual examples, attendees will understand how improper wavelength selection can reduce SNR and obscure ridge detail, while strategic choices can dramatically improve visualization.

To bridge the gap between theory and application, the session will feature a live demonstration of the Latent Imaging Fluorescence Technology (LIFT) system from Forensic Photonics LLC. This emerging technology integrates high-sensitivity optics with precise narrow-band illumination to dramatically suppress background interference and maximize SNR.

The training combines theoretical instruction with practical demonstrations, providing participants with actionable strategies for decision-making in the field. By the end of the session, attendees will be equipped to evaluate substrates, select appropriate reagents, and apply ALS technology with precision, ensuring high-quality latent print detection in complex forensic environments.

Date: Jan 29, 2026 1300-1500 hrs
Location: Orlando Police Department
Training Center
100 George DeSalvia Way
Orlando, FL



Registration Link: <https://forms.office.com/g/GS9sYDTc4y>
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