

# MDRP: Video Surveillance Visual Analytics: “Video Tracking, Analysis, and Threat Assessment”



- Personnel: Edward J. Delp
- External Partners: TSA, Next Wave Systems
- Goal:
  - To automatically determine the threat behavior exhibited by individuals or groups of people by observing them via surveillance video
  - To determine the quality and type of the video surveillance system that is required
- Approach:
  - Track the individual(s) and observe how they move in the scene
  - Evaluate the quality and type of the video surveillance system required and determine a cost trade-off with detection and analysis performance

Moving  
Object  
Detection



Object  
Tracking



Threat  
Behavior?

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## Outcomes

- Moving object detection which aims at extracting moving objects that are “interesting” in video sequences
  - Objects of interest: pedestrians and moving vehicles
- Object tracking techniques estimate the position, scale, and the orientation of the target in each frame and the processing is done in real-time
- Deployment on handheld device e.g. Nokia N810 and N 900 and iPhone

