JOINT COMMUNICATIONS AND AEROSPACE CHAPTER

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JOINT CHAPTERS MEETING

Digital Forensics Using Sensor Fingerprints

Prof. Jessica Fridrich

SUNY Binghamton

Date: Wednesday, May 23, 2007
Location: The Laboratory for Laser Energetics Auditorium - 240 East River Road, Rochester, NY 14623
Time: 6:30-7pm Pizza and Socializing, 7pm-8pm Technical Presentation
SPS Announcements + Venue Map:
http://ewh.ieee.org/r1/rochester/sp/location.html
RSVP: John Handley (John.Handley@xerox.com) for pizza count

Abstract

Digital Forensics is a newly emerged discipline dealing with origin and integrity verification of digital media. Its importance has been highlighted by the widespread conversion of media to digital. What is the value of a digital image as a silent witness in the court? Can it be trusted as truthful depiction of reality? How can one prove that a movie pirate made a specific pirated content? While finding answers to these questions is not easy, great advances have recently been made. Techniques from steganalysis and watermarking have been adapted for a new mission. In my talk, I will explain how modern methods for detection of robust watermarks can be used to detect the presence of sensor fingerprints in digital images and video and thus verify their origin as well as identify tampered regions.

Speaker Biography

Jessica Fridrich holds the position of Associate Professor at the Dept. of Electrical and Computer Engineering at Binghamton University (SUNY). She has received her PhD in Systems Science from Binghamton University in 1995 and MS in Applied Mathematics from Czech Technical University in Prague in 1987. Her main interests are in Steganography, Steganalysis, Digital Watermarking, and Digital Image Forensic. Dr. Fridrich's research work has been generously supported by the US Air Force. Since 1995, she received 18 research grants totaling over $5mil for projects on data embedding and steganalysis that lead to more than 80 papers and 7 US patents. Dr. Fridrich is a member of IEEE and ACM.