

Liverpool John Moores University

Title: CCTV ANALYSIS
Status: Definitive
Code: **7009CCTV** (118758)
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Computing and Mathematical Sciences

| Team | Leader |
|------------------|--------|
| Dhiya Al-Jumeily | Y |

Academic Level: FHEQ7
Credit Value: 30.00
Total Delivered Hours: 72.00
Total Learning Hours: 300
Private Study: 228

Delivery Options

Course typically offered: Runs Twice - S1 & S2

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 24.000 |
| Practical | 36.000 |
| Seminar | 12.000 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|----------|-------------------|--|---------------|---------------|
| Report | AS1 | CCTV Analysis Framework : Tools and Techniques (5,000 - 7,000 words). | 50.0 | |
| Report | AS2 | CCTV Analysis : Performing and Presentation of evidence (3,000 - 5,000 words). | 50.0 | |

Aims

The aim of this module is to introduce the student to Video Surveillance technology and its evidential use. To develop an understanding in evidential retrieval, analysis and processing of CCTV material and the practical issues in the field of Video Forensics.

Learning Outcomes

After completing the module the student should be able to:

- 1 Explain the technical concepts and implementation of a Digital Video Surveillance System.
- 2 Assess, retrieve and verify video evidence, demonstrating a practical knowledge of legal restrictions and requirements.
- 3 Explain and demonstrate the basic concepts and methodologies of video analysis and processing.
- 4 Select and apply appropriate tools for the basic analysis and processing of evidential video.
- 5 Critically Assess and present findings of video surveillance evidence in a forensically-sound manner.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

| | | | |
|----------|---|---|---|
| Report 1 | 1 | 2 | 3 |
| Report 2 | 4 | 5 | |

Outline Syllabus

The course outline includes:

Introduction to Video Forensics and Evidence. Video History, CCTV Installation and Development.

Recovery and Retrieval of CCTV Evidence, including equipment and hardware encountered. Software and hardware required too complete the process and the legal requirements.

Basic Video Analysis and Reporting. Current Digital CCTV challenges and the techniques used to understand their playback and investigative ability.

Video Processing, Capturing, Recording and Encoding. The fundamentals of Video Image processing, the approaches, the tools and the verification process.

Evidential Video and Still Image Production. Using standard and advanced NLE and Video Edit Software along with image processing software to create and evidential package Video Forensic Workstations. Self built or specifically marketed hardware for the purpose of Video Forensic.

Learning Activities

Video tutorials, practical's and practical based private study. The tutorials will aid the students to complete their private study and the lab based practical sessions will give students a unique opportunity to assess and examine a variety of Digital Video Evidence tools.

References

| | |
|------------------------|-------------------------------------|
| Course Material | Book |
| Author | Mike Constant |
| Publishing Year | |
| Title | The Principles and Practice of CCTV |
| Subtitle | |
| Edition | 3rd Edition |
| Publisher | Tavcom Training |
| ISBN | |

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|------------------------|------------------------------------|
| Course Material | Book |
| Author | |
| Publishing Year | |
| Title | Digital Imaging Procedure (v.2) |
| Subtitle | |
| Edition | |
| Publisher | National Police Improvement Agency |
| ISBN | |

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|------------------------|------------------------|
| Course Material | Book |
| Author | |
| Publishing Year | |
| Title | CCTV Recovery Guidance |
| Subtitle | |
| Edition | |
| Publisher | HOSDB |
| ISBN | |

Notes

This module will provide students with a working knowledge of the main concepts of obtaining, accessing, processing and interpreting CCTV evidence. It will also provide guidance for presenting CCTV evidence material. This module is primarily intended for those working in security or law enforcement, with a day-to-day reliance on CCTV evidence handling. This modules requires an on-site (or "Flying Faculty") practical session.