

European Commission FP 7 Security Program

**2009 SAMURAI Workshop on
User Requirements for Intelligent Video Systems**



LONDON

5th and 6th November 2009

Program

<http://www.samurai-eu.org/>

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Venues and Contacts

5-November-2009

Queen Mary University of London

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6-November-2009

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5-November-2009

Queen Mary University of London

	Title	Speaker
8:30	<p>Registration will be in the Martin Harris Room, Queen's Building. Queen's Building is on the Mile End campus (no 34 on the attached campus map). Local tube station is Mile End station. Tube lines running here are Central line and District & Circle lines. Campus map (also attached) http://www.qmul.ac.uk/about/campus/mileend/index.html#map</p>	
9:00	<p>Welcome</p> <p>SAMURAI Objectives and Progress</p>	<p>Prof Shaogang Gong <i>SAMURAI Coordinator</i> Queen Mary University of London</p>
9:45	<p>Visit to QMUL School of Electric Engineering and Computer Science</p>	
11:00	<p>Coffee Break (The Octagon)</p> <p>End User Presentations</p>	
11:30	<p>Video Analytics - Why isn't being used?</p> <p>Despite many millions of dollars, pounds, and euro having been spent over the years and indeed continue to being spent on developing video analytical technologies, very little of these developments have found their way into widespread use. In this talk we will explore the reasons for this lack of use and discuss ways that these technologies might be more successfully deployed in the future.</p>	<p>Prof Colin Lewis UK MOD Science Advisors Special Duties</p>
12:00	<p>Challenges in IVS under Current Economical Circumstances</p> <p>During the last decade intelligent video surveillance has been found a very suitable and effective security means in various applications. One of promising applications is public transportation hubs like airports and railway stations. However, applying this security technology needs more exact knowledge of the operating environment, with different countries having different security laws under variable operational conditions. In this talk we examine the challenges for IVS under the current financial circumstances when end users must balance low cost in utilizing existing CCTV camera networks against their lack of capacity, and an urgent need for supporting real-time video</p>	<p>Andre Samberg <i>Vice president (R&D)</i> Sec-Control Finland Ltd</p>

imagery and situation assessment for decision making.

12:30 **Detecting Anomalous Behaviour – Some Practical Challenges and Open Questions**

Dr Gillian Marshall
*Technical Manager Intelligence
Programmes Directorate
QinetiQ*

In this talk we will discuss some of the practical challenges we have come across when attempting to build a system to detect suspicious and anomalous behaviour. For example: Can you determine a priori what is suspicious? Can you build on human experience to date? How do you handle an intelligent adversary who learns what you are monitoring and modifies his behaviour accordingly? Can you understand and model his intent? What is anomalous behaviour? When does it become suspicious? Or are there other possible benign explanations for the observed behaviour? What is needed to build a practical system to alert on anomalous behaviour? e.g. scalability, multi-sensor fusion, efficient algorithms, robust to the real world, and acceptable false alarm rate.

13:00 **Lunch (The Octagon)**

14:00 **Requirements of Military Surveillance in the Digital Age**

Harbinder Rana
*DSTL Fellow
DSTL Fort Halstead*

The perceived requirements for military surveillance haven't really changed much over the last few years. User still wants more detail at greater acquisition ranges. The problem with the digital age is that there has been a huge increase in the amount of potential data at the User's finger tips and the User's perception of what can be done as opposed to what is achievable in the operational environments. The questions that need to be considered include: can the surveillance system cope and what does the military User really need. In an attempt to find some of the answers, a holistic approach to military surveillance in challenging operational environments has been adopted by DSTL. Some of the findings will be shared in this talk.

14:30 **Video Content Analysis in Homeland Security and Urban Video Surveillance Applications**

Giovanni Garibotto
*Recognition Technology Advisor
Elsag Datamat spa*

Video surveillance of vehicle and traffic situations represents an important objective for Security Control by Police and Government Institutions, since most of the criminal actions are connected to the presence and the actions of people and cars in the field of the crime. This presentation is aimed to refer and analyze a series of the end-user requirements from the Homeland Security field as they have been perceived by Eltag Datamat in some recent system design applications, in the Italian and the US markets. Particular attention will be devoted to the analysis of customer requirements to highlight the main critical issues emerging from the applications and the new challenges from the international competition.

15:00 **Public Space CCTV Monitoring – Delivering Efficiency through Technology**

Kate Rennicks
*CCTV Services Manager
Manchester City Council*

This presentation will look at the management of public space CCTV in a context of a modern city, and all the challenges that it poses. In the context of ever shrinking budgets and with the potential for a different political agenda on the horizon, it is essential that the Public space CCTV industry can deliver value for money and 'more for less'. This presentation will consider the ways in which intelligent technology could enhance our ability to deliver this important public service.

15:30 **Implementing and Deploying an Advanced Security System for Protection of RFI (Italian Railways) Assets**

Stefano De Muro
Security Manager
Italian Railways

RFI is the owner and operator of the major railway infrastructure in Italy. In order to protect its assets, RFI has started an important initiative to implement an advanced security system. The system, encompassing the entire Italian territory, will be geographically distributed and managed remotely. The surveillance system will take advantage of the latest video analysis technology. The aim is to create an infrastructure to tackle even the most critical situations such as terrorist attacks. This presentation will highlight the needs and criticalities in designing and implementing a system of such dimension and ensuring that false alarms are reduced to the minimum.

16:00 **Coffee Break (The Octagon)**

16:30 **Panel Discussion**

18:00 **Reception/Dinner**

Senior Common Room
Queen's Building
Queen Mary, University of London

21:00 **End of Day One**

6-November-2009

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Time	Title	Speaker
9:00	<p>Coach pickup, Terminal 3 Forecourt lane 5 for the Compass Centre. The coach pick up is for those attendees arriving by public transport into the airports central terminal areas (Terminals 1, 2 and 3). The attendees arriving by car or Taxi can go directly to the Compass Centre. Drivers should use the entrance at the junction on Nelson and Newbury Road - call the reception to raise the barrier (see attached map).</p>	
10:00	Welcome	<p>Tom Hardiman <i>Head of Security Development</i> BAA</p>
10:20	BAA Innovation	<p>Stephen Challis <i>Head of Innovation</i> BAA</p>
11:00	Coffee Break	
End User Presentations		
11:30	Heathrow Terminal 3 Data Capture and Progress	<p>Dr Tao Xiang <i>SAMURAI WP1 (System Requirements) Leader</i> Queen Mary University of London</p>
12:00	Video Analytics – The System Integrator’s View	<p>Alan Perrott <i>Head of Software Strategy</i> Tyco Fire and Integrated Solutions Cambridge</p>
	<p>While on paper video analytics is seen as the answer to all the security world’s problems, the reality is very different. This presentation highlights some of the problems with using video analytics from the system integrator’s perspective, and suggests some ways in which the technology needs to be improved before it can become widely adopted.</p>	
12:30	Real Challenges for Intelligent Surveillance System at Exhibitions	<p>Corrado Brigante Fiera di Genova Spa</p>

Exhibitions gather large number of people in relatively small areas. Surveillance systems are called upon to support the staff in managing crowds, detecting dangerous situation, crime etc. This presentation will highlight some of the key problems urgently need solutions.

13:00 **Situational Awareness from a Total Systems Perspective**

Ric Yates
Ultra Electronics Command
and Control Systems

Situational awareness is an intensive task. Carrying out surveillance and monitoring activities within the context of an operational environment is an extremely complex issue. A solution is required that not only provides high confidence that potential threats and targets of interest will be detected but one that also focuses on providing an integrated capability. Aspects such as ease of installation across operational environments, health and usage monitoring, covertness and security as well as operator training and logistics need to be considered.

In order to field an operationally robust solution that provides a high level of detection together with a low false alarm rate requires an understanding of what is perceived as abnormal behaviour within the operational environment of the system. In addition detailed knowledge of how the system is intended to be used is critical. These vital inputs together with an effective test and trials programme will ensure that the fielded system is operationally robust.

This presentation covers system level aspects from requirements through to testing that need to be considered to achieve an operationally feasible solution in a defence environment.

13:30 **Lunch (Maridian Restaurant)**

14:30 **Close of Presentation and Tour Briefing**

Huw Farmer
BAA

Tour of Terminal 3 Forecourt and Check-in Concourse SAMURAI multi-camera test environment.

16:00 **Coach pick up to return to the Compass Centre**
End of the Workshop