

**PROGRAMME**  
**2010 INTERNATIONAL CONFERENCE ON EMERGING SECURITY TECHNOLOGIES**  
**EST 2010 - ROBOSEC 2010 - LAB-RS 2010**

**Day 1**

**08:30-09:00**      **Registration**

**09:00-09:10**      **Welcome / Introduction**

**09:10-10:10**      **Keynote 1: Policy Based Authorisation**  
*Prof David Chadwick, University of Kent, UK*

**10:10-10:40**      **Coffee**

**10:40-12:00**      **Session 1A: Information Security and Biometrics**

**Session 1B: Tutorial on Unmanned Systems in  
 Security Application:** *Isabella Panella, Selex Galileo, UK*

On the Role of Biosignals for User Authentication:  
 The Foundations of Cognitive Biometrics  
*Kenneth Revett, Farzin Deravi, and Konstantinos Sirlantzis*

Behaviour Profiling on Mobile Devices.  
*Fudong Li, Nathan Clarke, Maria Papadaki and Paul Dowland*

Password Security through Negative Filtering  
*Dipankar Dasgupta and Sudip Saha*

Audio-based Indoor Health Monitoring System  
 Using FLAC Features  
*Jiaxing Ye, Takumi Kobayashi, Tetsuya Higuchi*

**12:00-13:00**      **Lunch**

**13:00-14:00**      **Keynote 2: Secured Robot Identity and Mechatronic Security**  
*Prof. Wael Adi, Technical University of Braunschweig, Germany*

**14:00-14:30**      **Coffee**

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**14:30-16:30**

**Session 2A: Nomad Biometric Authentication**

Nomad Biometric Authentication (NOBA): Towards Mobile and Ubiquitous Person Identification

*K. Sirlantzis, G. Howells, F. Deravi, S. Hoque, P. Radu, G. McConnon, X. Savatier, J.-Y. Ertaud, N. Ragot, Y. Dupuis, A. Iraqui*

Are Two Eyes Better than One?. An Experimental Investigation on Dual Iris Recognition

*P. Radu, K. Sirlantzis, G. Howells, S. Hoque, Farzin Deravi*

A Survey of Point-Source Specular Reflections in Noisy Iris Images

*G. McConnon, Farzin Deravi, S. Hoque, Konstantinos Sirlantzis, G. Howells*

Fusion of Omnidirectional and PTZ cameras for face detection and tracking

*Amine Iraqui, Yohan Dupuis, Rémi Bouteau, Jean-Yves Ertaud, Xavier Savatier*

A Segmentation Method of Catadioptric Images for Gait Recognition in Unconstrained Environment

*Yohan Dupuis, Xavier Savatier, Jean-Yves Ertaud, Ghaleb Hoblos*

Person Identification from Spatio-Temporal 3D Gait

*Yumi Iwashita, Ryosuke Baba, Koichi Ogawara, Ryo Kurazume*

**Session 2B: Modelling and Simulation**

Optimal Strategy: Domain-specific Modelling of Dynamically Evolving Multi-dimensional Events

*H.J. Kadim*

Utilising Mobile Wireless Network Technologies to Support an Intelligent Sensor Information System for Public Transport Safety

*Kieran McLaughlin, Sakir Sezer*

A Systems Engineering Approach for Security System Design

*Ian Alston, Simon Campbell*

Aiding designers, operators & regulators to deal with legal & ethical considerations in the design & use of lethal autonomous systems

*M.J. de C. Henshaw, C.E. Siemieniuch, M.A. Sinclair*

Principled Electronic Consent Management: A Preliminary Research Framework

*Christian J. Bonnici, Lizzie Coles-Kemp*

Learning the Consequences of Actions: Representing Effects as Feature Changes

*Mathias Rudolph, Manuel Mühlig, Michael Gienger, Hans-Joachim Böhme*

**16:45-17:30**

**Panel Session: Emergent requirements of defence and security in the UK**

*Dr Helen Almey, Centre for Defence Enterprise, Ministry of Defence, UK*

**19:30**

**Conference Dinner**

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**Day 2**

- 9:00-10:00**      **Keynote 3: Mini-hopping robots for search and rescue and security**  
*Prof. Paolo Fiorini, University of Verona, Italy*
- 10:00-10:30**      **Coffee**
- 10:30-11:50**      **Session 3: Symposium on Robotics and Security (ROBOSEC)**
- A Game Theoretical Model for Patrolling and its Application to an Active Camera  
*Nicola Basilico, Davide Rossignoli, Nicola Gatti, Francesco Amigoni*
- Multi-agent Teams for Underwater Surveillance  
*F. Ehlers*
- Supporting Search and Rescue Operations with UAVs  
*Sonia Waharte, Niki Trigoni*
- Security concepts for underwater production control systems  
*Heinz Wörn, Igor Tchouchenkov, Günther Reimann, Daniel Braun*
- 12:00-13:00**      **Lunch**
- 13:00-14:00**      **Keynote 4: Embedded Ethics and Robotic Deception: Implications for Security**  
*Professor Ronald C. Arkin, Georgia Institute of Technology, USA.*
- 14:00-14:30**      **Coffee**

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**14:30-16:30**

**Session 4A: Identity detection and verification using human faces**

Giving crime the 'evo': catching criminals using EvoFIT facial composites

*Charlie D. Frowd, Peter J.B. Hancock, Vicki Bruce, Alex H. McIntyre, Melanie Pitchford, Rebecca Atkins, Andrew Webster, John Pollard, Beverley Hunt, Emma Price, Sandra Morgan, Adrian Stoika, Romeo Dughila, Sergiu Maftei, Gabriel Sendrea*

Facial Composite Production using EFITV

*Agnieszka M. Lech, Robert A. Johnston*

Seeing More Clearly With Glasses?: the Impact of Glasses and Technology on Unfamiliar Face Matching and Identification of Familiar Facial Composites

*Alex H. McIntyre, Peter J.B. Hancock, Charlie D. Frowd, Vicki Bruce*

A Comparison of Individual and Morphed Facial Composites Created Using Different Systems

*Josh P. Davis, Lucy Sulley, Chris Solomon, Stuart Gibson*

Prototyping Perceptions of Health for Inclusion in Facial Composite Systems

*David Clarke, Marianne Riggs, Stuart Gibson*

Evaluating the application of simple weightless networks to complex patterns

*B. McElroy, G. Howells*

**Session 4B: Symposium on Learning and Adaptive Behaviours for Robotic Systems (LAB-RS)**

Attentive Monitoring Strategies in a Behavior-based Robotic System: an Evolutionary Approach

*Ernesto Burattini, Alberto Finzi, Silvia Rossi, Mariacarla Staffa*

Emergent Behaviours Driven by Chaotic Dynamics

*Lorenzo Riano, Martin McGinnity*

Learning Arm Motion Strategies for Push Recovery of Bipedal Robots

*Masaki Nakada, Brian Allen, Shigeo Morishima, Demetri Terzopoulos*

Learning Flexible Full Body Kinematics for Humanoid Tool Use

*Matthias Rolf, Jochen J. Steil, Michael Gienger*

Tacking reduces bow-diving of high-speed unmanned sea surface vehicles

*R. Felix Reinhart, Jochen J. Steil, Terrance L. Huntsberger, Adrian Stoica*

Vision-Based Landing of a Simulated Unmanned Aerial Vehicle with Fast Reinforcement Learning

*Marwan Shaker, Mark N.R. Smith, Shigang Yue, Tom Duckett*

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**Day 3**

**9:30-13:00**      **Social and Networking Event (Includes a walking tour of Canterbury Cathedral)**