9th Workshop in Speckled Computing
Room G.07
School of Informatics
10 Crichton Street

24-25 November 2010

Edinburgh EH8 9AB

24 November 2010

Session 1: Speckled Interactions

08:15   **Registration and coffee in the Café**

08:45   **Welcome and Introduction**
D K Arvind (School of Informatics, University of Edinburgh)

09:00   **"Spatial Reasoning about Human-Robot Interactions"**
Aris Valtazanos (School of Informatics, University of Edinburgh)

09:30   **"Validation of a Distributed Estimation Algorithm for Mobile Gait Analysis using Specknet"**
Alexander Pappe (Otto Bock Gmbh, Duderstadt, Germany)

10:00   **"Experimental Measurement of Dynamic Loads of Structures Induced by Groups and Crowds"**
Vitomir Racic (Department of Civil & Structural Engineering, University of Sheffield)

10:30   **Refreshments in the Café**

11:00   **"Interactive Music Systems and Sensor Technologies"**
Marc Leman (IPEM, Ghent University, Belgium)

11:30   **"Body-Based Gestures and Social Acceptability"**
Stephen Brewster (School of Computing Science, University of Glasgow)

12:00   **"Aerodynamic Speech Database – the New Questions"**
Didier Demolin (GIPSA Laboratory, Grenoble, France)

12:30   **Lunch in the Café and the Atrium**

13:00   **"Speckled Flamenco Dancer"**
Mariza Dima (Edinburgh College of Art)

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13:15   **Welcome and opening of the Centre for Speckled Computing**
Sir Timothy O'Shea (Principal, The University of Edinburgh)

Session 2: Thematic Talks

13:30   **"Better Monitoring of the Acutely Ill Patient"**
Gordon Drummond (Royal Infirmary of Edinburgh)

14:00   **"Using Specknets to Understand Land-Atmosphere Interactions at Multiple Scales"**
Mathew Williams (School of Geosciences, University of Edinburgh)

14:30   **"Anticipating Behaviour"**
Alan Murray (Edinburgh College of Art)

15:00   **Refreshments in the Café**

Session 3: Speckled Healthcare

15:30   **"COPD and Activity Monitoring"**
William McNee (Royal Infirmary of Edinburgh) & Roberto Rabinovich (The Queen's Medical Research Institute)

16:00   **"Remote monitoring in COPD - What's Missing?"**
Brian McKinstry (Centre for Population Health Sciences, University of Edinburgh) & Janet Hanley (NHS Lothian)

16:30   **"The Use of Specks in Gait Analysis"**
Alison Richardson & Jennifer Walsh (Astley Ainslie Hospital, Edinburgh)

17:00   **"Alarming Seizures"**
Kamath Tallur (Royal Hospital for Sick Children, Edinburgh)

17:30   **"Applications of Speckled Computing in Sleep Disorders"**
Renata Riha (Royal Infirmary of Edinburgh)

18:00   **Canapé Reception in the Café and the Atrium**

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Session 4: Monitoring in the Natural Environment

08:15   **Registration and coffee in the Café**

09:00   **"The Need for Real-Time REDOX Measurement in Freshwater Ecology"**
Bryan Spears & Bernard Dudley (Centre for Ecology & Hydrology, Edinburgh)

09:30   **"Development of a Real-Time, *in situ* REDOX Sensor for Monitoring Microbial Sediment Processes"**
Andrew Free (School of Biological Sciences, University of Edinburgh)

10:00   **"Using Specknets to Measure Crop Stress and Forecast Disease"**
Simon Oxley (Scottish Agricultural College)

10:30   **"Linking Soil Carbon Distribution and Physicochemical Conditions in a Heterogeneous Arctic Landscape"**
Audrey Wayolle (University of Stirling)

11:00   **Refreshments in the Café**

SLIP Students' Showcase (Level 3, Appleton Tower)

11:30   **"Flexible Environmental Monitoring of Buildings"**
Nicky Ellakirk, Marco Elver, Ivan Konstantinov, Peter Nock & Marciej Soczka

12:00   **"On-body Indoor Navigational Assistance for the Visually-impaired"**
Igor Czerwinski, Dimo Iliev, James McKeown & Tsveta Stoyanova

12:30   **"Awesomegotchi – Proximity Gaming for Social Networking"**
Marcin Bot, Mateusz Byczkowski, Ross Hamilton, Andrew Sogokon & Harry Wagstaff

13:00   **Lunch in the Café and the Atrium**

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Session 5: Monitoring in the Built Environment

14:00 **"Crowd Flow Modelling and the Future Benefits of Speckled Computing"**
David Brocklehurst (Buro Happold)

14:30 **"Video Tracking of Human Activity and Voice Recognition Co-combined in Augmented Interactive Performance Environments"**
Simon Biggs (Edinburgh College of Art)

15:00 **"Tales of Things and other Ghost Stories"**
Chris Speed (Edinburgh College of Art)

15:30 **Refreshments in the Café**

16:00 **"Evaluating the Performance of Occupied Buildings – An Opportunity for Specks?"**
Zack Gill, Buro Happold

16:30 **"Tacit Knowledge to Embodied Interaction: Specks in 'Research by Design' "**
Mark Wright (School of Informatics, University of Edinburgh and Edinburgh College of Art)

17:00 **"Algorithmic Challenges for Sensor Networks in Environmental Monitoring"**
Sotiris Nikoletseas (Computing Technology Institute, University of Patras)

17:30 **Canapé Reception in the Café and the Atrium**