



# Intelligent Media Systems & Services Research Laboratories (IMSS)

School of Systems Engineering

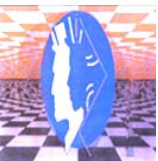
University of Reading



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# IMSS Technology RTD Capabilities

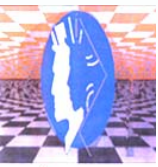
- **IMSS:** A multi-disciplinary research centre with internationally recognised scientists & RTD leaders at the School of Systems Engineering (Cybernetics, Computer Science, Electronic Engineering), University of Reading.
- **IMSS:** A track record of successful large collaborative projects coordination, and, contribution to a number of enabling technologies underpinning our 6 IMSS Technology Teams as follows:

## SMDSOA

- Model-driven, service-oriented architectures, ontological networks engineering, virtualisation, and agent technologies, secure semantic technologies, collaborative-creative social spaces computing.

## MobiPETS

- Privacy-enhanced trusted personalised context-aware interaction, user-intimate systems, dynamic usability modelling & mining, behaviour modelling & usability evaluation in networked data intelligence architectures, forensics and surveillance technologies, AAA- identity management.



# IMSS Technology RTD Capabilities

## DMMR

- Distributed databases and multi-modal multimedia information archiving & retrieval; smart transcoding for mobile media distribution, real-time video streaming, QoS, SLA, DRM.

## Robo-Humatics©

- Robot-Human co-operativity-support architecture for semantic integration and responsive decision escalation and resolution, speech, image and NL processing, image tracking, group formation marking, gait recognition, pattern recognition & machine learning, multi-level data fusion, scene analysis, context-sensing, situational awareness.

## SAWI

- Networked enterprises collaborative workflow integration, semantic architectures and middle/upper-ware for self-evolving Adhoc, BAN, P2P, A2A networks, security and dependability protection, secure services contracting, dynamic scheduling, optimisation, simulation and decision support.

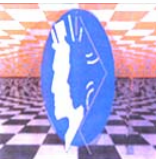
## ESRAS

- Embedded systems design, lab-on-chip and networked sensor technologies for adaptive telematic systems exploiting FPGA-enabled real-time semantic integration technologies, home automation and energy management



# IMSS Technology RTD Laboratories

- **IMSS:** multi-disciplinary collaborative work of the 6 technology teams leverages the synergies emerging within specialist laboratories where we have pushed forward the frontiers of societally-responsive ICT-enabled solutions innovation; as follows:
  - **i) *Requirements Engineering and Usability Methodologies*** (User-Centred Co-Design & Usability Evaluation Laboratory).
  - **ii) *Ambient Intelligence and Surveillance Technologies*** (FPGA Embedded Systems, RFID, Sensor Networks, Speech, Vision & NL Understanding Laboratory).
  - **iii) *Computer Network Security*** (High Speed Intrusion Detection Systems Laboratory).
  - **iv) *Semantic Technologies and Intelligent Media Computing*** (Ontology Engineering and Multimedia Technologies Laboratory).
  - **v) *Multi-Modal Human-Computer Interaction*** (Advanced Personalised Interactivity, Immersive Media and Dialogue-Gesture-Based Systems Laboratory).
  - **vi) *Enterprise Integration Solution Systems*** (Agent Technology, Semantic Workflow and Decision Support Systems Laboratory).



# Thank you

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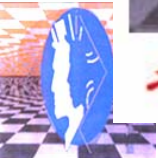
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