ENGINEERING AND PHYSICAL SCIENCES RESEARCH COUNCIL

Autonomous & Intelligent Systems

EPSRC
Pioneering research and skills

Dr Simon Crook (Senior Manager, Aerospace, Defence & Marine)

Research Areas

- software architectures

- sensor exploitation

- situational awareness

- decision making and planning

- trusted decision making and HCI

- information management

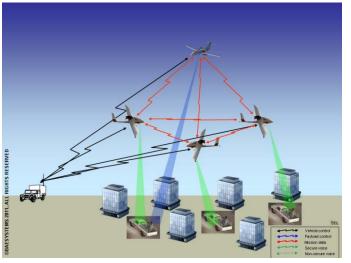- Verification of autonomous systems

- Model building and learning

Example Scenarios

- Rail Infrastructure
- Mars Rover
- Nuclear Decommissioning by Tele-autonomy
- Co-operative Vehicles

Hedlamp (Huddersfield + Edinburgh - Learning and Adaptation of Models for Planning)

- University of Huddersfield - Department of Informatics - Knowledge Engineering and Intelligent Interfaces research group: Prof. Lee McCluskey and Dr. Peter Gregory
- University of Edinburgh - School of Informatics - CISA/AIAI: Prof. Austin Tate and Dr. Gerhard Wickler
- Project Monitor for AIS Industrial Partners: Dr. Walt Aldred, Schlumberger
- The project partners will work with the AIS programme industrial partners to promote the work for practical uses.

- Huddersfield
    - Domain Model Generation
    - Machine Learning
- Edinburgh:
    - Rich Plan Generation
    - Dynamic Multi-agent Planning
    - Mixed-Initiative Operations Centres

- http://www.aiai.ed.ac.uk/project/hedlamp/

Hedlamp (Huddersfield + Edinburgh - Learning and Adaptation of Models for Planning) — Edinburgh

- Rich Plan Representation
  <I-N-C-A> Plan Abstraction
  MIT Process Handbook – PIF
  NIST PSL (Core) and ISO 18629
  SPAR - Shared Planning and
  Activity Representation

- I-X Resources
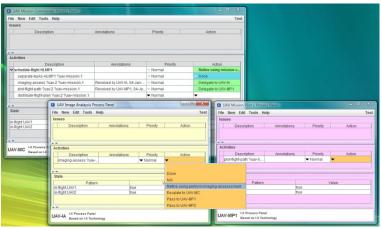 I-X 4.6 (25-Aug-2010)
  I-X Applications
  I-X UAV-MP App for UAV Mission
  Planning (2003)
  I-Globe app (I-X/AGlobe) planning
  and simulated execution for
  mobile vehicles operation (2007)

- I-Room app - a virtual space for
  intelligent applications

- http://www.aiai.ed.ac.uk/project/hedlamp/

Hedlamp (Huddersfield + Edinburgh - Learning and Adaptation of Models for Planning)

- Spare Slide – Larger Logos

- http://www.aiai.ed.ac.uk/project/hedlamp/