MULTI-AGENT SYSTEMS

SELECTED READING

Coalition Agents Experiment: Multi-Agent Co-operation in an International Coalition Setting


Authors: David N. Allsopp, Patrick Beaument, Jeffrey M. Bradshaw, Edmund H. Durfee, Michael Kirton, Craig A. Knoblock, Niranjan Suri, Austin Tate, Craig W. Thompson

Multi Agent System: A Nonlinear Framework for Machine Learning and Emerging Strategic Behavior

http://www.cs.northwestern.edu/~wolff/aicg99/jbrzezinski.html

Author: Jacek Brzezinski, DePaul University, Institute for Applied Artificial Intelligence, School of Computer Science, Telecommunications and Information Systems

The Potential For Intelligent Software Agents in Defence Simulation


Authors: Andrew Lucas and Simon Goss

D'Agent tutorials on mobile agents

http://agent.cs.dartmouth.edu/tutorials/index.html

- Bob Gray - Introduction to Mobile Agents: Performance, Security and Programming Examples
- Bob Gray - Agent Mobility: Performance, Security and a Case Study
- David Kotz - Agents, Mobile Agents, and D'Agents
- George Cybenko and Bob Gray - Mobile Agents in Distributed Computing
D'Agent papers on mobile agents


This page contains papers on mobile agents, mobile agents security, hypothesis tracking, mobile agents in information retrieval, network sensing, learning and planning, network routing and quality-of-service, visual agent construction, functional validation.

Selected titles:

- Mobile Agents: The Next Generation in Distributed Computing.
- Mobile-Agent versus Client/Server Performance: Scalability in an Information-Retrieval Task.
- D'Agents: Applications and Performance of a Mobile-Agent System.
- Write Once, Move Anywhere: Toward Dynamic Interoperability of Mobile Agent Systems.
- Mobile Agents for Mobile Computing.
- Future Directions for Mobile-Agent Research.
- Mobile Agents and the Future of the Internet.
- Performance Analysis of Mobile Agents for Filtering Data Streams on Wireless Networks.
- Scheduling Multi-task Multi-agent Systems.
- A Comparison of Mobile Agent Migration Mechanisms.
- A Game-Theoretic Formulation of Multi-Agent Resource Allocation.
- Mobile-Agent Planning in a Market-Oriented Environment.
- Trading Risk in Mobile-Agent Computational Markets.
- Multiple Hypothesis Text-based Tracking of Land Vehicles.
- Mobile Agents for Distributed Information Retrieval.
- Network Awareness and Mobile Agent Systems.
- Q-Learning: A tutorial and extensions.
- Networking Reconfigurable Smart Sensors.
- Matching Conflicts: Functional Validation of Agents.
- Information theoretic principles of agents.
Publications of Katia Sycara

Home page: http://www.ri.cmu.edu/people/sycara_katia.html
http://www.ri.cmu.edu/people/person_304_pubs.html
A very good site with more than 160 publications on multi-agent systems theory and applications, majority available for download.

Selected titles:
- Communicating Agents in Open Multi-Agent Systems
- Facilitating Message Exchange through Middle Agents
- Algorithms for combinatorial coalition formation and payoff division in an electronic marketplace
- Conversational Case-Based Planning for Agent Team Coordination
- Configuration Management for Multi-Agent Systems
- Multi-agent reinforcement learning for planning and scheduling multiple goals
- Multiple negotiations among agents for a distributed meeting scheduler
- Agent Interoperation Across Multagent System Boundaries
- Agent-Based Support for Human/Agent Teams
- Agent-Based Team Aiding in a Time Critical Task
- Interleaving Planning and Execution in a Multiagent Team Planning Environment
- Agent-based aiding for individual and team planning tasks
- Evolution of Goal-Directed Behavior Using Limited Information in a Complex Environment
- Adding Security and Trust to Multi-Agent Systems
- Agent aided aircraft maintenance
- Interoperability among Heterogeneous Software Agents on the Internet
- A Roadmap of Agent Research and Development
- Agent Cloning: An Approach to Agent Mobility and Resource Allocation
- Calibrating trust to integrate intelligent agents into human teams
- Argumentation in Negotiation: A Formal Model and Implementation
- Personal Security Agent: KQML-Based PKI
- Intelligent Adaptive Information Agents
- Distributed Intelligent Agents
- Executing Decision-theoretic Plans in Multi-agent Environments
Unified Information and Control Flow in Hierarchical Task Networks
How Does an Agent Learn to Negotiate
Multi-Agent Integration of Information Gathering and Decision Support
Designing a Multi-Agent Portfolio Management System
Cooperative Intelligent Software Agents
Modeling teams of specialists
Distributed Problem Solving through Coordination in a Society of Agents
Informed Decision Making in Multi-Specialist Cooperation
Machine Learning for Intelligent Support of Conflict Resolution
Negotiation Planning: An AI Approach
Persuasive Argumentation in Negotiation

Clint’s publications


A good site with publications on military modeling and simulation using intelligent agents

Selected titles:

Developing Agents for Military Simulation: From Knowledge Acquisition to Deployment
Interchanging Agents and Humans in Military Simulation
Modelling Command, Control, and Communication in Intelligent Agents
Interactions Between Real and Virtual Entities in Synthetic Environments
Intelligent Agents in the Analysis of Air Operations
Scalability Issues in Military Multi-Agent Simulation
Enabling perception for plan recognition in multi-agent air mission simulations
A Military Air Mission Planning Tool: An RMA Initiative
Plan Recognition in Military Simulation: Incorporating Machine Learning with Intelligent Agents Recognition of Intention
Intelligent Computer-generated Forces
Using Intelligent Agents in Military Simulation or "Using Agents Intelligently"
Flying Together: Modelling Air Mission Teams
Thinking Quickly: Agents for Modeling Air Warfare
The Battle Model
• Towards Credible Computer Generated Forces
• Air Defence Operational Analysis Using the SWARMM Model
• Modelling Decision Making in an Air-Combat Environment
• Air Combat Tactics in the Smart Whole AiR Mission Model
• The Challenge of Whole Air Mission Modelling
• Modelling Teams and Team Tactics in Whole Air Mission Modelling.
• FFG-7 Class Frigate Airwake Viewer

Collaborative Interface Agents


Authors: Yezdi Lashkari, Max Metral, Pattie Maes MIT Media Laboratory, Cambridge, MA

Strategic Negotiation in Multiagent Environments

http://mitpress.mit.edu/0262112647

Author: Sarit Kraus

The MIT Press