

Defense Industry Applications Of Autonomous Agents And Multi-agent Systems

[DOWNLOAD HERE](#)

1;Contents;6 2;Preface;7 3;References;9 4;Nexus: Self-organising Agent-based Peer-to-Peer Middleware for Battlespace Support;11 4.1;1. Introduction;11 4.2;2. Approach;12 4.3;3. Autonomic Computing Case Study - Mercury Adaptive Service Selection;14 4.3.1;3.1. Overview;14 4.3.2;3.2. Related Work;17 4.3.3;3.3. Experimental Analysis;18 4.4;4. Conclusion;21 4.5;References;22 5;Information-Based Control of Decentralised Sensor Networks;24 5.1;1. Introduction;24 5.1.1;1.1. Background;25 5.1.2;1.2. Related Work;26 5.2;2. Information-Based Control;27 5.3;3. Decentralised Sensor Networks;28 5.4;4. Examples and Applications;29 5.4.1;4.1. Platform Control;29 5.4.2;4.2. Sensor Control;30 5.4.3;4.3. Communication Control;34 5.4.4;4.4. Complex System Control;37 5.5;5. Discussion and Conclusions;38 5.6;References;39 5.7;Acknowledgment;41 6;Agent Applications in Defense Logistics;60 6.1;1. The Vision of Future Military Logistics;60 6.1.1;1. The Vision of Future Military Logistics;60 6.1.2;2. The DARPA Advanced Logistics Project (ALP);61 6.2;2. The DARPA Advanced Logistics Project (ALP);61 6.2.1;2.1. ALP Grand Challenges;63 6.2.2;2.2. Building Operations-Logistics Plans;64 6.2.3;2.3. Demonstrating Command and Control in the Logistics Domain;64 6.3;3. The DARPA UltraLog Project;67 6.3.1;3.1. UltraLog Approach;68 6.3.2;3.2. Technical Focus;69 6.3.3;3.3. UltraLog Extensions to Cougaar;69 6.3.4;3.4. Key Experimental Findings;70 6.3.4.1;3.4.1. System Findings.;71 6.3.4.2;3.4.2. Functional Findings.;71 6.3.4.3;3.4.3. Survivability Findings.;72 6.4;4. The Adaptive Logistics Project;72 6.4.1;4.1. Situational Understanding as the Basis of Optimized Planning;73 6.4.2;4.2. ALCT Demonstrated Capabilities;75 6.4.3;4.3. ALCT Situation Reasoning Agents;75 6.5;5. The Cognitive Agent Architecture (Cougaar);75 6.5.1;5.1. The Cognitive Model;76 6.5.2;5.2. Communication, Tasking and Collaboration;77 6.5.3;5.3. Planning and Execution;78 6.5.4;5.4. Summary of Key Benefits of the Cougaar Approach;79 6.6;6. Conclusions;80 6.7;7. Acknowledgement;81 6.8;References;81 7;AGENTFLY: Towards Multi-Agent Technology in Free Flight Air Traffic Control;82 7.1;1. Introduction;82 7.2;2. AGENTFLY System Architecture;84 7.3;3. Flight Planning in AGENTFLY;87 7.4;4. Agent-Based Collision Avoidance Methods;88 7.4.1;4.1. Rule-Based Collision Avoidance (RBCA);88 7.4.2;4.2. Iterative

Peer-to-peer Collision Avoidance (IPPCA);89 7.4.3;4.3. Multi-Party Collision Avoidance (MPCA);91 7.4.4;4.4. Non-Cooperative Collision Avoidance Architecture;93 7.5;5. Multi-layer Collision Avoidance Architecture;94 7.6;6. Deployment Scenarios and Selected Experimental Results;94 7.7;7. Conclusion;99 7.8;Acknowledgement;100 7.9;Appendix A. A-globe Multi-Agent Platform;101 7.10;References;103 8;Controlling Teams of Uninhabited Air Vehicles;106 8.1;1. Introduction;106 8.1.1;1.1. Concept;106 8.1.2;1.2. Scenario;107 8.1.3;1.3. Overview;107 8.2;2. Variable Autonomy;107 8.3;3. System Overview;109 8.4;4. Multi-Agent System;110 8.4.1;4.1. User Agent;111 8.4.2;4.2. Group Agents;111 8.4.3;4.3. Specialist Planning Agents;111 8.4.3.1;4.3.1. Search Agent.;112 8.4.3.2;4.3.2. Attack Agent.;112 8.4.4;4.4. UAV Agents;112 8.5;5. Example Run;113 8.6;6. System Integration Issues;114 8.6.1;6.1. Reactive and Deliberative Planning;115 8.6.2;6.2. Communication;116 8.6.3;6.3. Logging and Debugging;116 8.6.4;6.4. Test Harness;117 8.7;7. Trials Results;117 8.7.1;7.1. System Performance;117 8.7.2;7.2. Trust;118 8.8;8. Summary;118 8.8.1;8.1. Related Work;118 8.8.2;8.2. Conclusions;119 8.9;References;120 8.10;Acknowledgment;121 9;Simulating Fighter Pilots;122 9.1;1. Thinking Quickly and Clearly;122 9.2;2. Agents in Deployed Simulations;124 9.2.1;2.1. F/A-18 Hornet;125 9.2.2;2.2. Airborne Early Warning and Control;126 9.2.3;2.3. Strike Tactics;127 9.2.4;2.4. Maritime Surveillance;128 9.3;3. Agent Research and Development;129 9.3.1;3.1. Age EAN/ISBN : 9783764385712 Publisher(s): Springer, Berlin, Birkhuser Discussed keywords: Multi-Agent Systems, Software-Agenten Format: ePub/PDF Author(s): Pechoucek, Michal - Thompson, Simon G. - Voos, Holger

[DOWNLOAD HERE](#)

Similar manuals:

[Advances In Practical Applications Of Agents And Multiagent Systems](#)

[Advances On Practical Applications Of Agents And Multiagent Systems](#)

[Highlights In Practical Applications Of Agents And Multiagent Systems](#)

[Multiagent Systems And Applications](#)

[Probabilistic Reasoning In Multiagent Systems](#)

[Trends In Practical Applications Of Agents And Multiagent Systems](#)

