

Autonomy, Explainability, Practicality in AI

Incremental Validation in Unsupervised Learning (UL)

- Assess quality of clustering of new data in real time
- Much faster processing, smaller memory footprint

Adaptive Resonance Theory (ART)

- The leading engineering research group in ART
- Also faster, smaller memory footprint

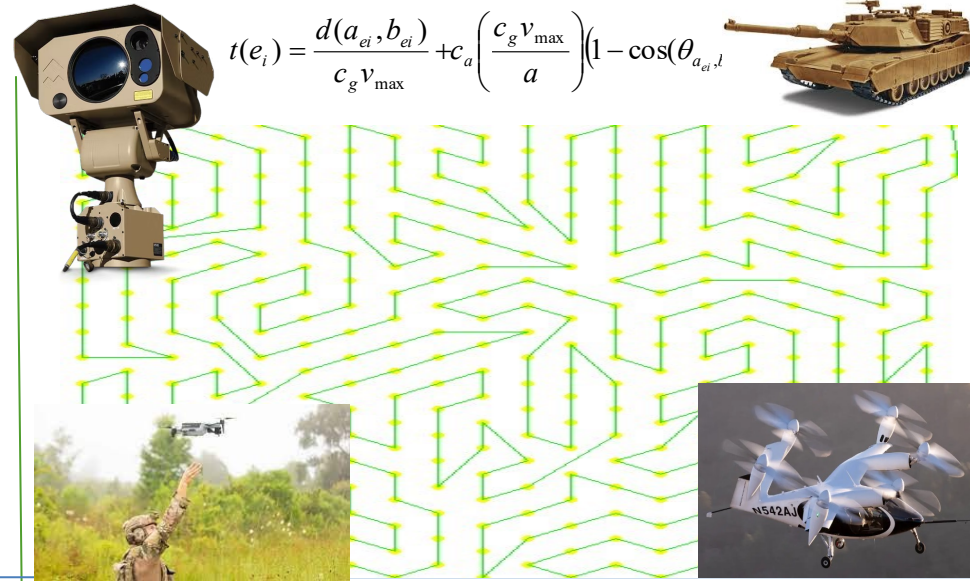
Reinforcement Learning (RL) in Decision and Control

- Dealing with challenging cost function and models
- Hybridization of RL with other techniques

Explainable Artificial Intelligence (XAI)

- Ontological Reasoning
- Natural Language Processing
- Statistics

Example: Real-time UL and RL enhancing national security



Postdocs: Multidisciplinary research, proposal development, Working with a wide range of faculty and students

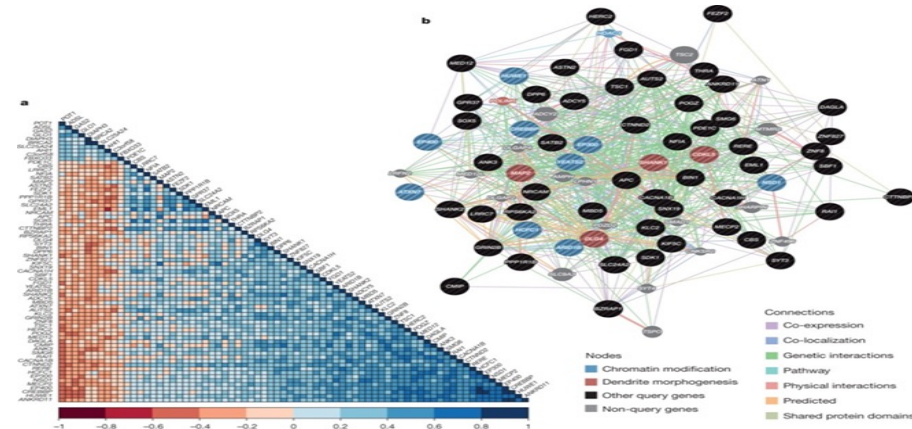
Ph.D. students:

Apply first, then reach out to AI faculty at Missouri S&T

Faculty: Hiring now and next year, especially in CS

Leadership: KI Directors, especially infrastructure

Example: Natural Language Processing and XAI in Biology and Medicine



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