

UiO : **Department of Technology Systems**
University of Oslo

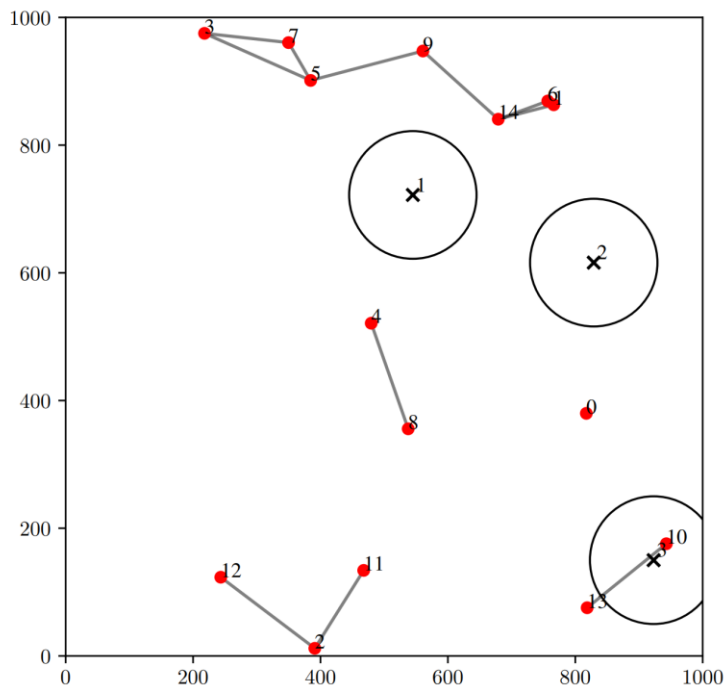
Master thesis proposals (ITS - Cybernetics and autonomous systems)
Multi-agent systems

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Analysing multi-agent systems



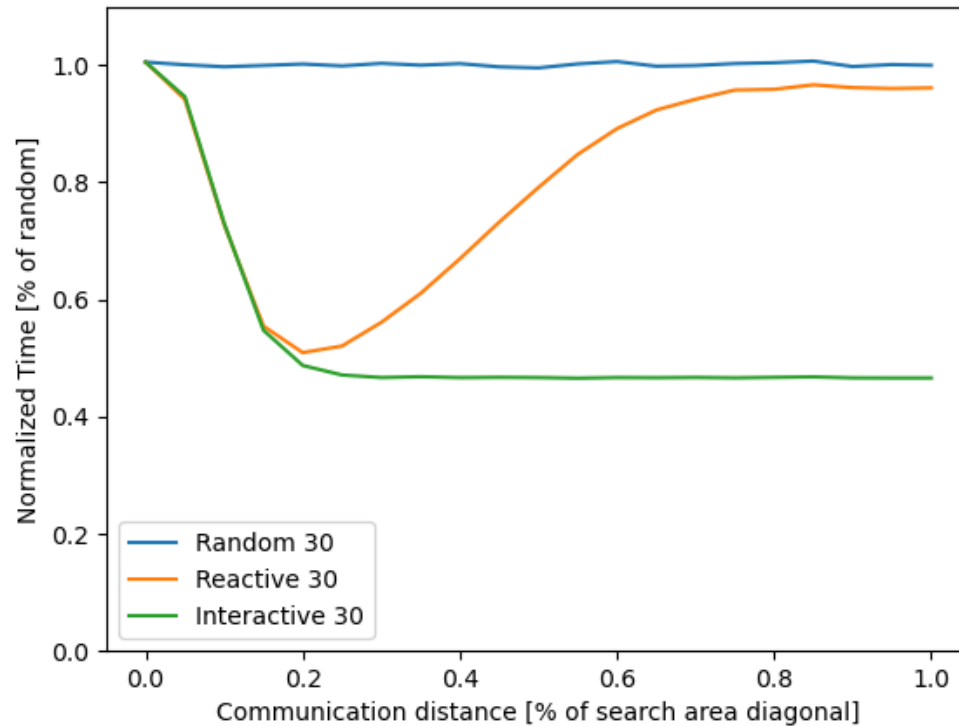
- Multi-robot systems can be evaluated in benchmark search, task allocation and completion problems (STAC*)
- Analyzing different cooperation mechanisms
 - In simulated STAC
 - In experimental STAC lab

*Minos-Stensrud *et al.*, "Information sharing in multi-agent STAP," IEEE SSCI, 2021

Thesis proposals in multi-agent systems

1. Quorum sensing in multi-robot systems
 - Long or short thesis
 - Simulation and/or physical experiments for analysis
2. Analysis of human avatars in multi-agent systems
 - Long thesis
 - Human/swarm-interaction with online recruitment

The MAS design problem*



*Tasks $T=2$
Task capacity $T_c=3$
Agent capacity $A_c=1$
Task radius $T_r=150/3352$

Summary

- Focus on multi-agent system research
- Experimental or theoretical
- Long or short thesis
- Contact: Jonas Moen, hjmoen@its.uio.no