

# MULTI AGENT SYSTEM FOR COOPORATIVE TASKS

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This research provides a methodology for intelligent agents to communicate with each other in order to achieve the common goal of cleaning a floor which contains dirt and obstacles. Robots are autonomous and they can make discussions considering the environmental conditions and the past records of the system records in the memory.

Robots perceive the environment and record the acquired knowledge in a distributed memory. Any robot in the system can update and read the information in the memory. Memory is updated or referred by the robots before or after moving new location. This prevents the robots from clashes.

All the activities of the robots are programmed based on algorithms belongs to three levels. First level developed is based on conventional algorithms and second and third level developed are based intelligent methods.

Testing of algorithms had to limit considerably to small floor area and had to limit number of robots to two because of the complexity of the algorithms and the limitations of the hardware. Therefor the testing had to limit for few attempts.

It is expected more accurate with sophisticate hardware.