

Claims:

1. A distributed swarm robot scheduling decision method, at least comprises two swarm robots, and the swarm robots communicating with each other through a communication interface, the swarm robots comprising:

receiving a task pack comprising at least one task, and transmitting the task pack to other swarm robots, in swarm robots; and a task state of the task pack received by each swarm robot is the same;

making a decision to claim a task ~~suitable for execution~~ to be executed in the task pack according to a claiming decision variable; and

executing the task ~~suitable for execution~~ to be executed;-
- ~~2.~~ The method according to claim 1, further comprising:

labeling the task ~~suitable for execution~~ to be executed as a claimed task and locally storing the claimed task, and receiving updated task packs transmitted by the other swarm robots and comprising labeled claimed tasks;

judging priorities of the same claimed tasks in different task packs according to an ~~update~~ ing decision variable, and updating and retaining the task pack with a high priority; and

transmitting the task pack with the high priority as update task packs comprising labeled claimed tasks to the other swarm robots.
- ~~3-2.~~ The method according to claim ~~12~~, further comprising:

judging whether all the tasks in the task pack are claimed or not; and

when all the tasks in the task pack are claimed, making a request of transmitting a new task pack.
- ~~4-3.~~ The method according to claim 1, wherein the claiming decision variable comprises stopped or working states of the swarm robot, and/or a present position state of the swarm robot, and/or an own vehicle and container of the swarm robot, and/or a task load of claimed tasks or tasks to be claimed of the swarm robot.
- ~~5-4.~~ The method according to claim ~~12~~, wherein the updating decision variable comprises the present position state of the swarm robot, and/or a power state of the swarm robot, and/or task claiming time.
- ~~6-5.~~ An electronic device, comprising a memory and a processor, wherein the memory stores a computer program, and the computer program is executed by the processor to implement the method as claimed in any one of claims 1-~~45~~.

7.6. A storage medium, storing a computer program, wherein the computer program is executed by a processor to implement the method as claimed in any one of claims 1-45.

8.7. A distributed swarm robot scheduling decision system, comprising:

swarm robots, comprising at least two swarm robots, the swarm robots communicating with each other through a communication interface; and

a server, communicating with the swarm robots and configured to transmit a task pack comprising at least one task to any one of robot in the swarm robots for transmission to the other swarm robots,

wherein a task state of the task pack received by each swarm robot is the same, the swarm robots make a decision to claim a task suitable for execution to be executed in the task pack according to a claiming decision variable and executes the task suitable for execution to be executed:-

9. ~~The system according to claim 8,~~ each of the swarm robots is further configured to:

label the task suitable for execution to be executed as a claimed task and locally store the claimed task, and receive updated task packs transmitted by the other swarm robots and comprising labeled claimed tasks;

judge priorities of the same claimed tasks in different task packs according to an updateing decision variable, and update and retain the task pack with a high priority; and

transmit the task pack with the high priority to the other swarm robots.

10.8. ~~The system according to claim 9,~~ each of the swarm robots is further configured to:

judge whether all the tasks in the task pack are claimed or not; and

when all the tasks in the task pack are claimed, make a request of transmitting a new task pack.

~~11.9.~~ The system according to claim 8, wherein the claiming decision variable comprises stopped or working states of the swarm robot, and/or a present position state of the swarm robot, and/or an own vehicle and container of the swarm robot, and/or a task load of claimed tasks or tasks to be claimed of the swarm robot.

~~12.10.~~ The system according to claim 9, wherein the updating decision variable comprises the present position state of the swarm robot, and/or a power state of the swarm robot, and/or task claiming time.

~~13.11.~~ A distributed swarm robot scheduling decision apparatus, at least comprises two swarm robots, and the robots communicating with each other through a communication interface, the swarm robots comprising:

a receiving and transmission module, configured to receive a task pack comprising at least one task and transmit the task pack to other swarm robots ~~in swarm robots,~~ and a task state of the task pack received by each swarm robot is the same;

a decision claiming module, configured to make a decision to claim a task ~~suitable for execution~~ to be executed in the task pack according to a claiming decision variable; and

an execution module, configured to execute the task ~~suitable for execution~~ to be executed;-

~~14.~~ The apparatus according to claim 13, further comprising:

a labeling and receiving module, configured to label the task ~~suitable for execution~~ to be executed as a claimed task and locally store the claimed task and receive updated task packs transmitted by the other swarm robots and comprising labeled claimed tasks;

an updating decision module, configured to judge priorities of the same claimed tasks in the different task packs according to the updating decision variable and update and retain the task pack with the high priority;

a transmission module, configured to transmit the task pack with the high priority to the other swarm robots;

a complete claiming judgment module, configured to judge whether all the tasks in the task pack are claimed or not; and

a request module, configured to make a request of transmitting a new task pack according to a judgment result that all the tasks in the task pack are claimed.