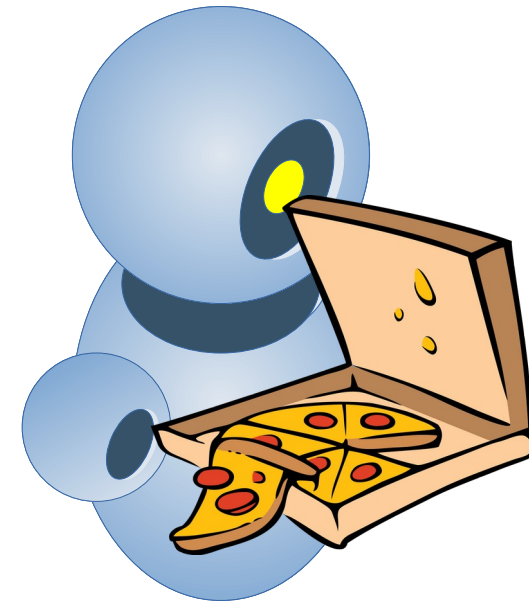# Introduction to Distributed and Embedded Multi-agent Systems

Carlos Eduardo Pantoja[1]
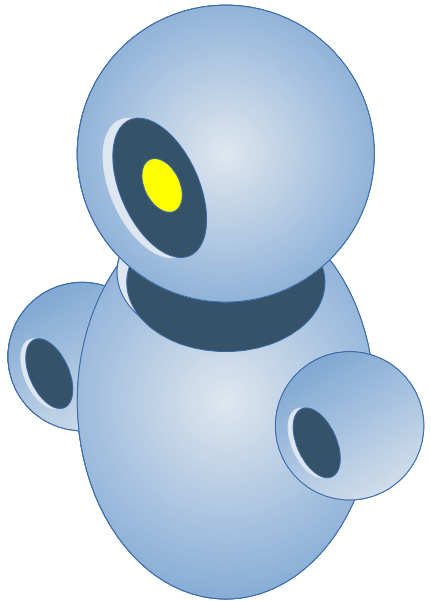**Nilson Mori Lazarin[1,2]**

1. Centro Federal de Educação Tecnológica (CEFET/RJ) - 2. Universidade Federal Fluminense (UFF), Brasil
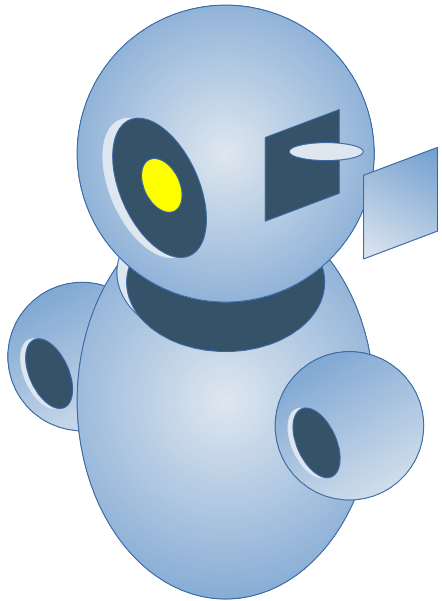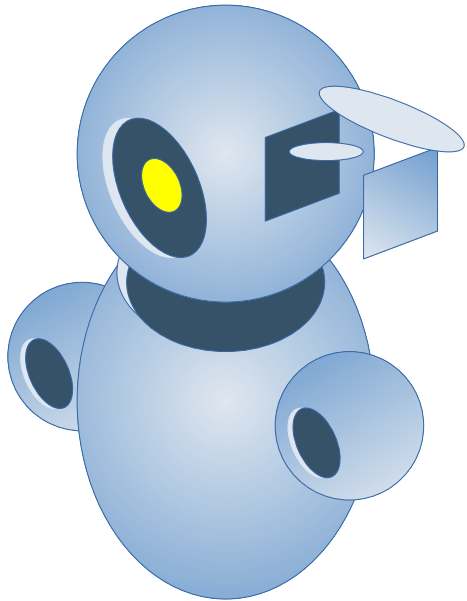
MY FIRST SINGLE AGENT

My First Agent

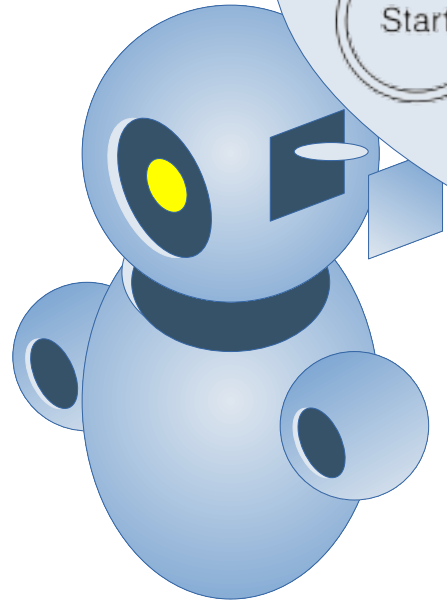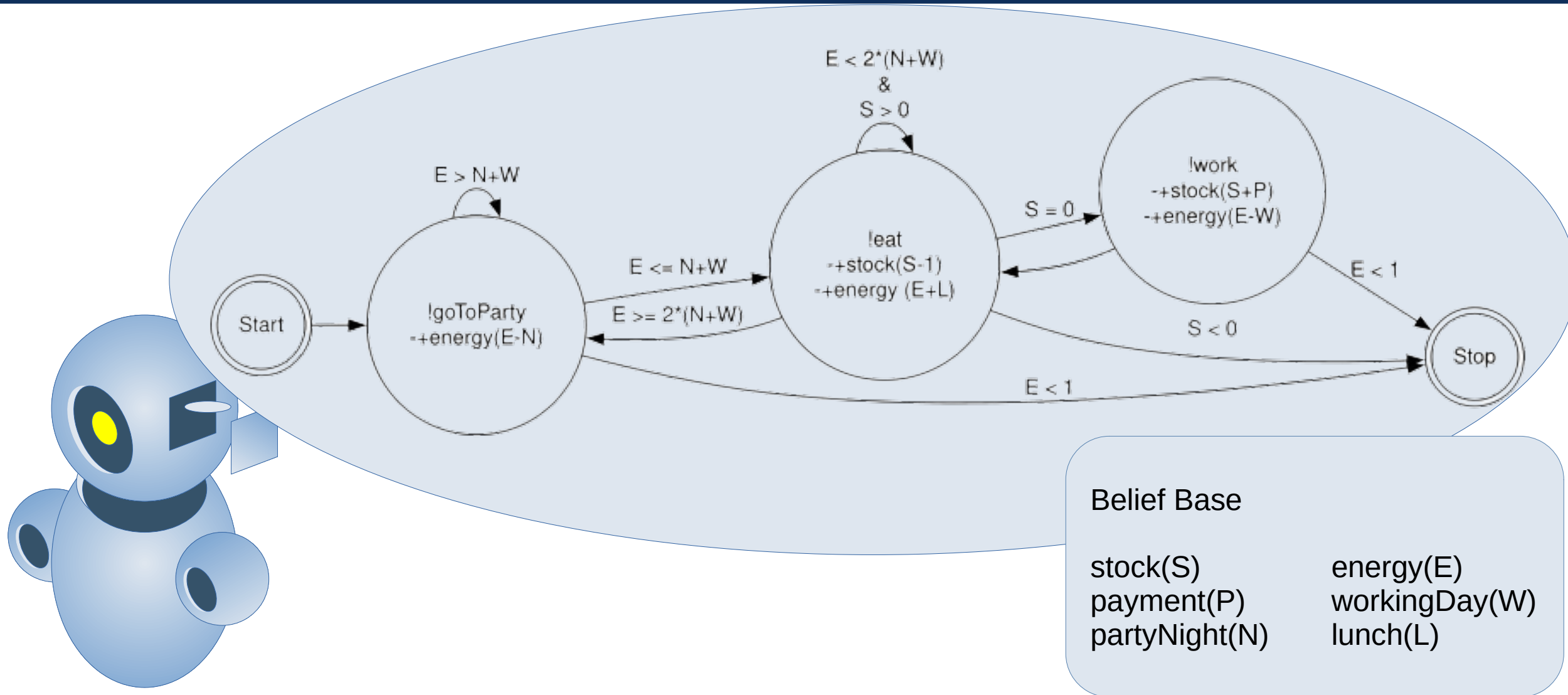# My First Agent

My First Agent

My First Agent

Belief Base

stock(S)   energy(E)
payment(P)   workingDay(W)
partyNight(N)   lunch(L)

My First Agent: Code

```
asl > ≡ giacomo.asl
 1   /* Initial beliefs and rules */
 2   lifeParameters(S,E,P,W,N,L) :- stock(S) &  energy(E) & payment(P) & workingDay(W) & partyNight(N) & lunch(L).
 3
 4   stock(0).       // The pizza stock.
 5   payment(+3).    // How many pizzas does Giacomo get by a working day?
 6   energy(10).     // The Giacomo life energy.
 7   lunch(+2).      // How much energy does Giacomo get eating a pizza?
 8   workingDay(-1). // How much energy does Giacomo lose in a working day?
 9   partyNight(-3). // How much energy does Giacomo lose on a party night?
10
11   /* Initial goals */
12   !goToParty.
13
14   /* Plans */
15   +!goToParty: lifeParameters(S,E,P,W,N,L) & (E+(N+W)>1) <- -+energy(E+N); !goToParty.
16   +!goToParty: lifeParameters(S,E,P,W,N,L) & (E+(N+W)<=1)<- !eat.
17
18   +!eat: lifeParameters(S,E,P,W,N,L) & (E<2*(-1*(N+W))) & S>0 <-  -+stock(S-1); -+energy(E+L); !eat.
19   +!eat: lifeParameters(S,E,P,W,N,L) & (E>=2*(-1*(N+W))) <-    !goToParty.
20   +!eat: lifeParameters(S,E,P,W,N,L) & S=0 <- !work.
21
22   +!work: lifeParameters(S,E,P,W,N,L) <- -+stock(S+P); -+energy(E+W); !eat.
23
24   +energy(E): E < 1 <- .print("Giacomo died of hunger!"); .stopMAS.
25   +stock(S): C < 0 <- .print("Without food!"); .stopMAS.
```


https://github.com/chon-group/distributed
AndEmbeddedAI/raw/main/course/06-My
FirstAgent/giacomoAgent.chon

OBRIGADO!

pantoja@cefet-rj.br
nilson.lazarin@cefet-rj.br