

# EHIPASSIKO presentation - 12<sup>th</sup> April

## MARKS DISTRIBUTION:

Project / EHIPASSIKO presentation → 25

Weekly interaction → 25

End semester → 50

\* 15 groups, each 10 members → by 23rd Jan

\* choose project based on sir's metaphor

\* demonstrate a single functionality, s.t. it appears to be smart - on 12th April - based on the metaphor

Spadex - indigenous project by ISRO (16th Jan)

- collective effort

- Space docking (smart robotic system), at cryogenic temperatures

using context to realise the same functionality, in reality → intelligence.

\* identify patterns, similarity

\* smartness → behaviour (how we use our functionalities to achieve something)

System :

parts + connections  $\xrightarrow{\text{achieve}}$  purpose

PCP

Smartness  $\rightarrow$  behaviour of system.

build system s.t. it matches the requirement defined  
& surpasses the condition & context.

$\downarrow$   
depends on condition  
and context.

designer  $\rightarrow$  define condition & requirements.

Intelligence  $\div$  measures an agent's ability to achieve goals  
in a wide range of environments.

*SYSTEM*  $\nearrow$  *FUNCTIONALITY*

FUNCTIONALITY: "What a system does".

ENVIRONMENT: "Something that interacts with the system".

PERSONALITY  $\rightarrow$  credible | reliable character  
 $\hookrightarrow$  dependent on credible functionalities.

amplification  $\Rightarrow$  information intensity  $\uparrow\uparrow \rightarrow$  decision making  $\uparrow\uparrow$   
 $\downarrow$   
intelligence  $\uparrow\uparrow$

optimization  $\rightarrow$  select what's right for the system.

feedback loops  $\rightarrow$  helps decide execute functionalities  
 $\hookrightarrow$  achieve eqbm?

+ve feedback → self-reinforcing feedback that amplifies current state.

-ve feedback → seeks balance, provides eqbm, opposes change.

define a functionality from the image and justify it as a smart behaviour (for a specific purpose/condition)



1) context: self-defence; \* barks to scare away its predators (or) to call for other members for safety (group)

Safety for ; \* barks to probably alert  
others &  
itself owner in case of unusual changes (prob, diff. sound)  
\* assert dominance to not allow intruders to enter its territory.

single functionality - for smartness - for a purpose.