Lecture #0

Artificial Intelligence

INT404

Course Overview

L T P: **3 1 0**

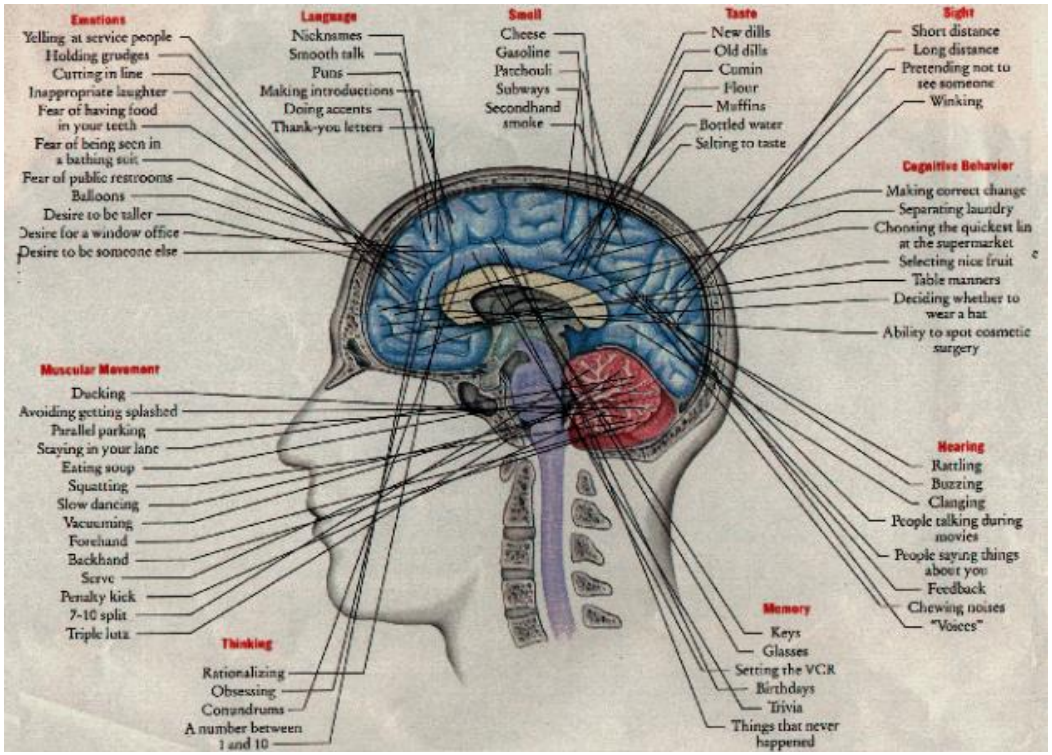
Text Book:

- "ARTIFICIAL INTELLIGENCE", RICH, KNIGHT, Mc GRAW HILL , 3rd Edition (2009)

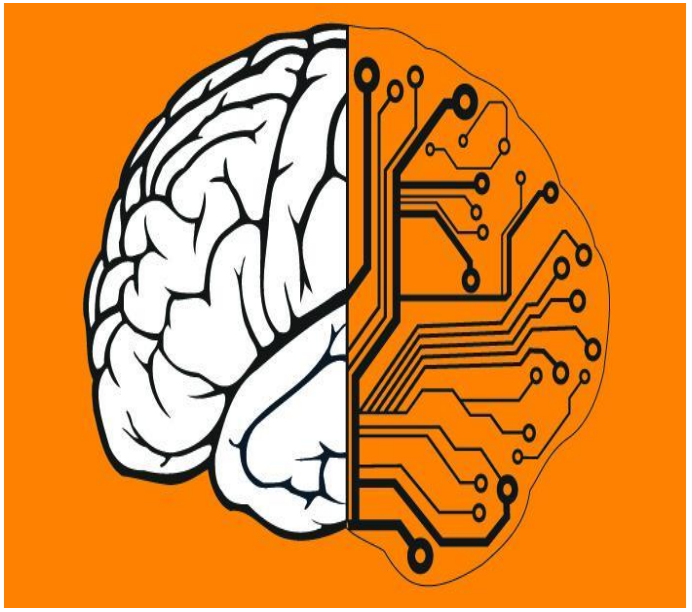
Reference books:

- "ARTIFICIAL INTELLIGENCE: A MODERN APPROACH" by STUART RUSSEL, PETER NORVIG, PEARSON, 2nd Edition, (2012)
- "Artificial Intelligence with Python " by PRATEEK JOSHI, PACKT, 1st Edition,(2017)

What is AI?



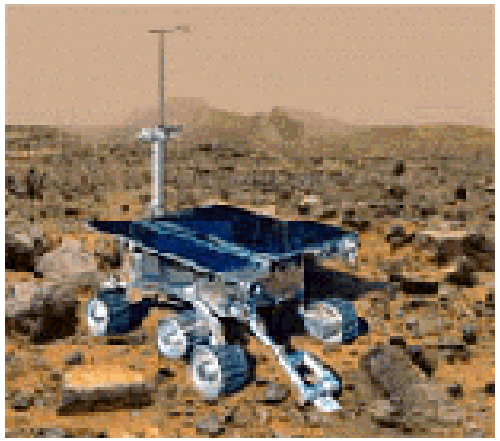
Human Brain



Mapping of Human brain into machine

Why study AI?

Labor



Science

Google

YAHOO!

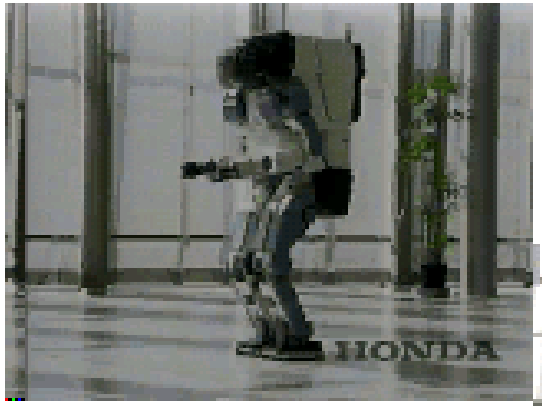
Search engines

Medicine/
Diagnosis

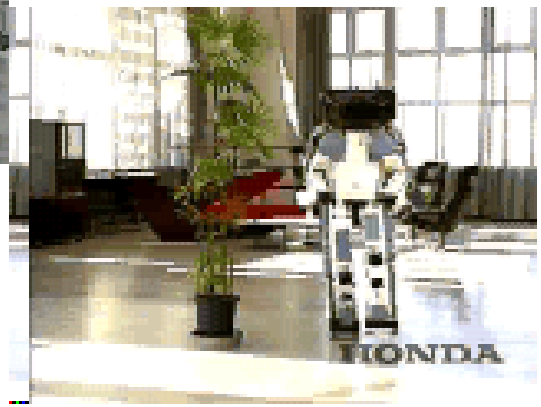
Appliances

What else?

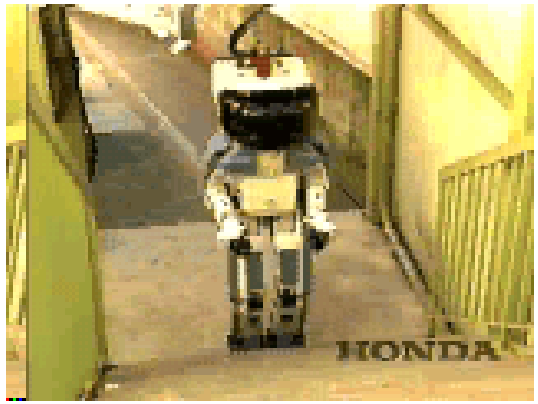
Honda Humanoid Robot



Walk

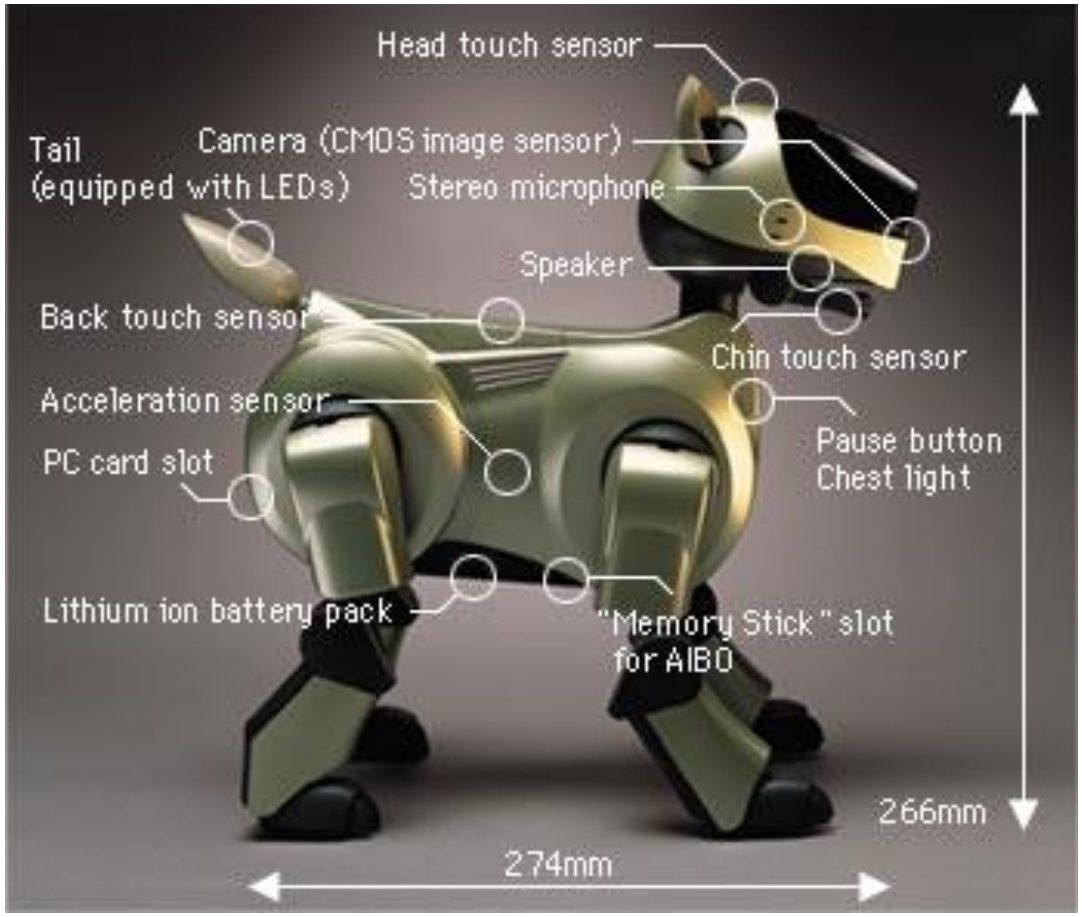


Turn



Stairs

Sony AIBO


Head touch sensor
Tail
(equipped with LEDs)
Camera (CMOS image sensor)
Stereo microphone
Speaker
Back touch sensor
Chin touch sensor
Acceleration sensor
Pause button
Chest light
PC card slot
Lithium ion battery pack
"Memory Stick" slot
for AIBO
266mm
274mm

Natural Language Question Answering

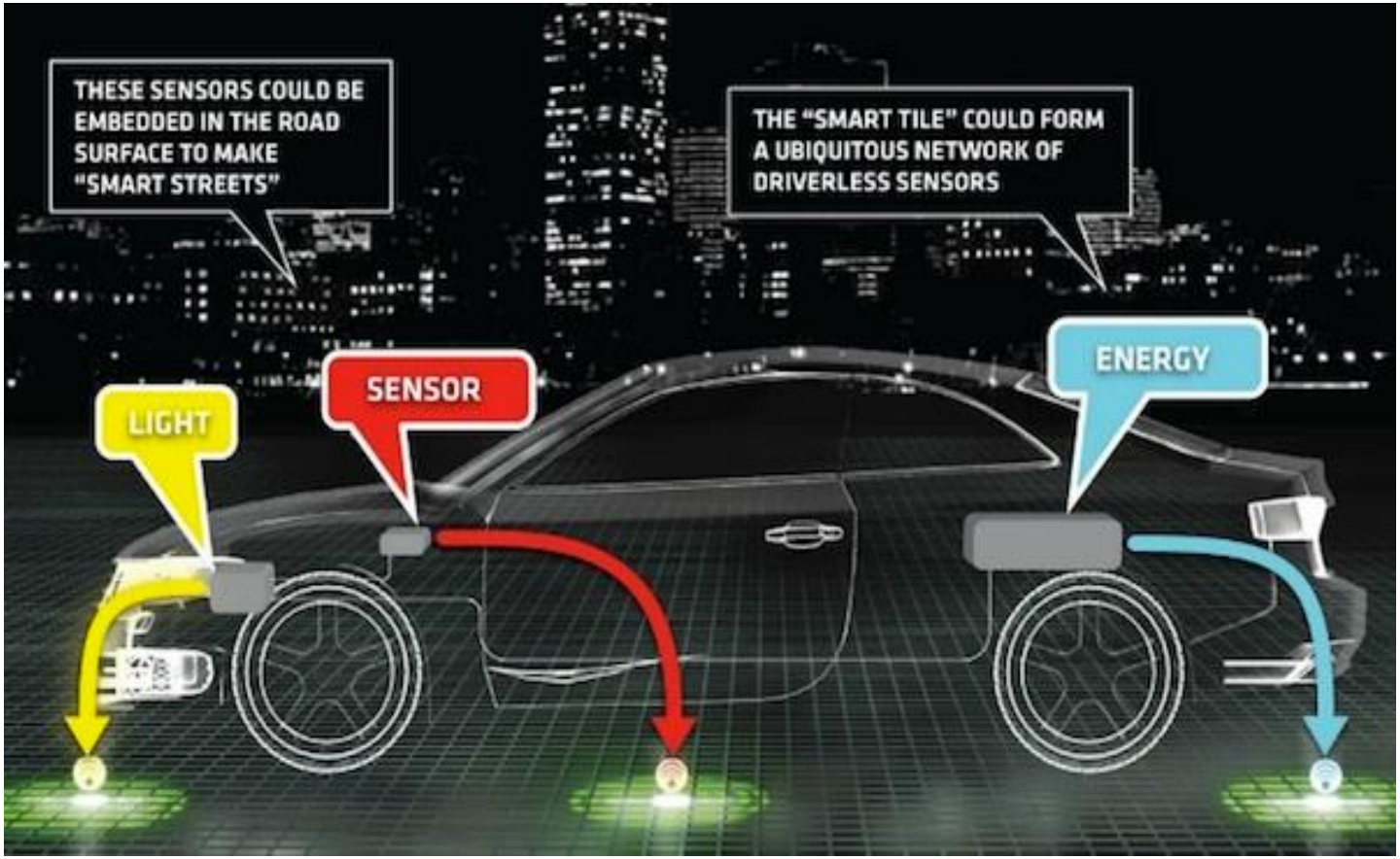
http://aimovie.warnerbros.com

http://www.ai.mit.edu/projects/infolab/

Milestone in the field of Artificial Intelligence

Robot holding electric bulb

Driver-less Car

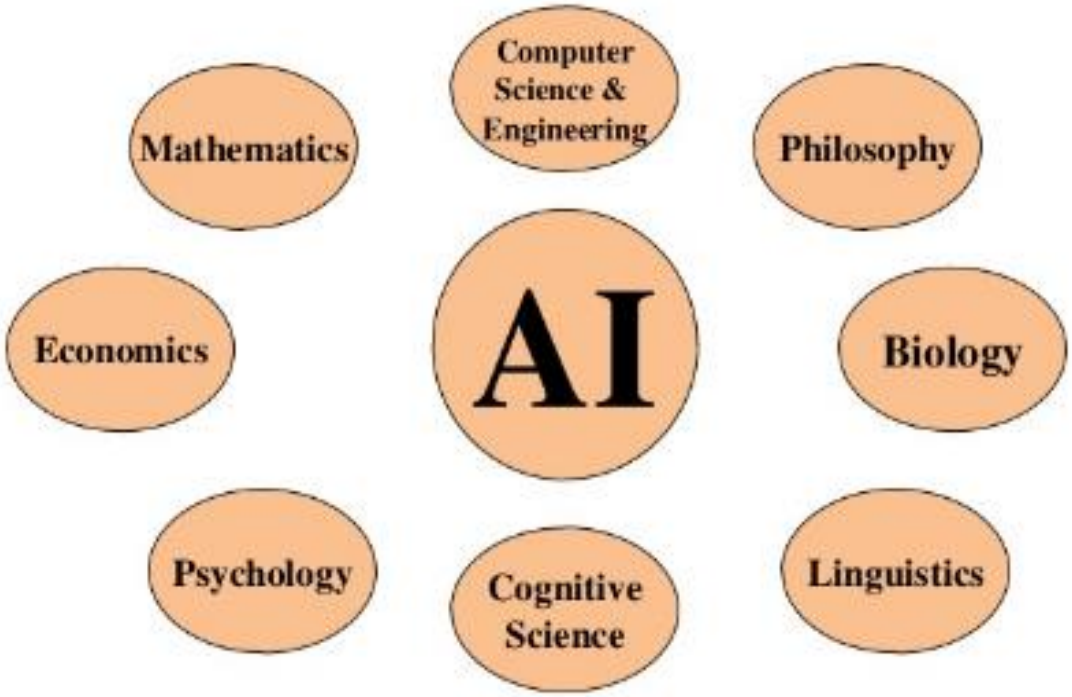


Human vs Robot Table Tennis game

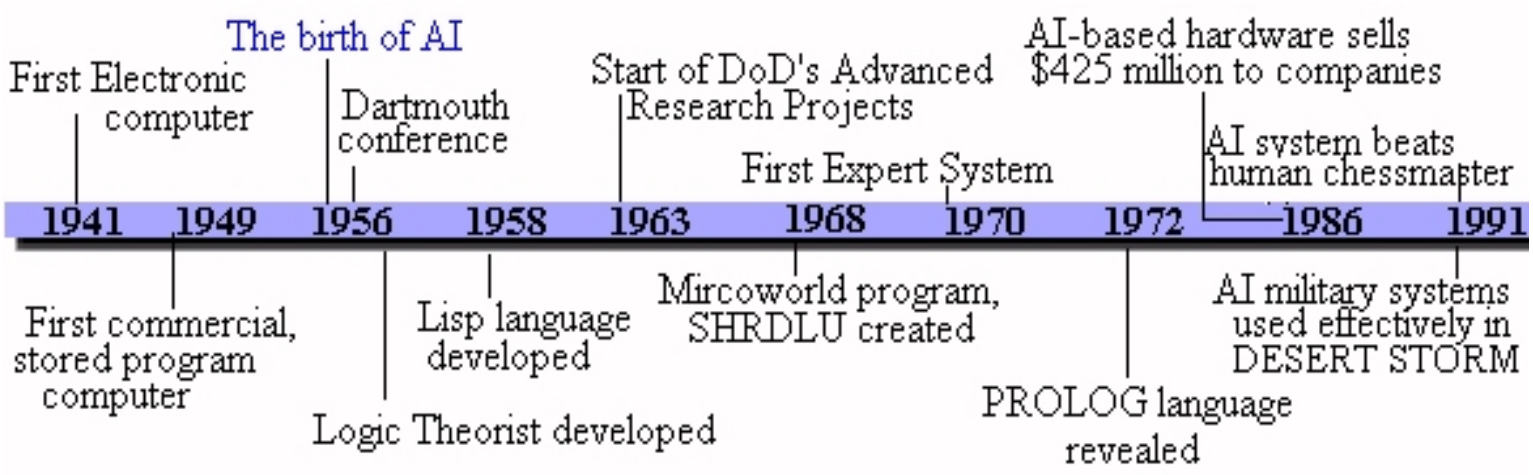
Python Packages Required for AI

- numpy
- pandas
- simpleai
- logic
- sympy
- nltk
- easyAI
- sklearn
- skfuzzy

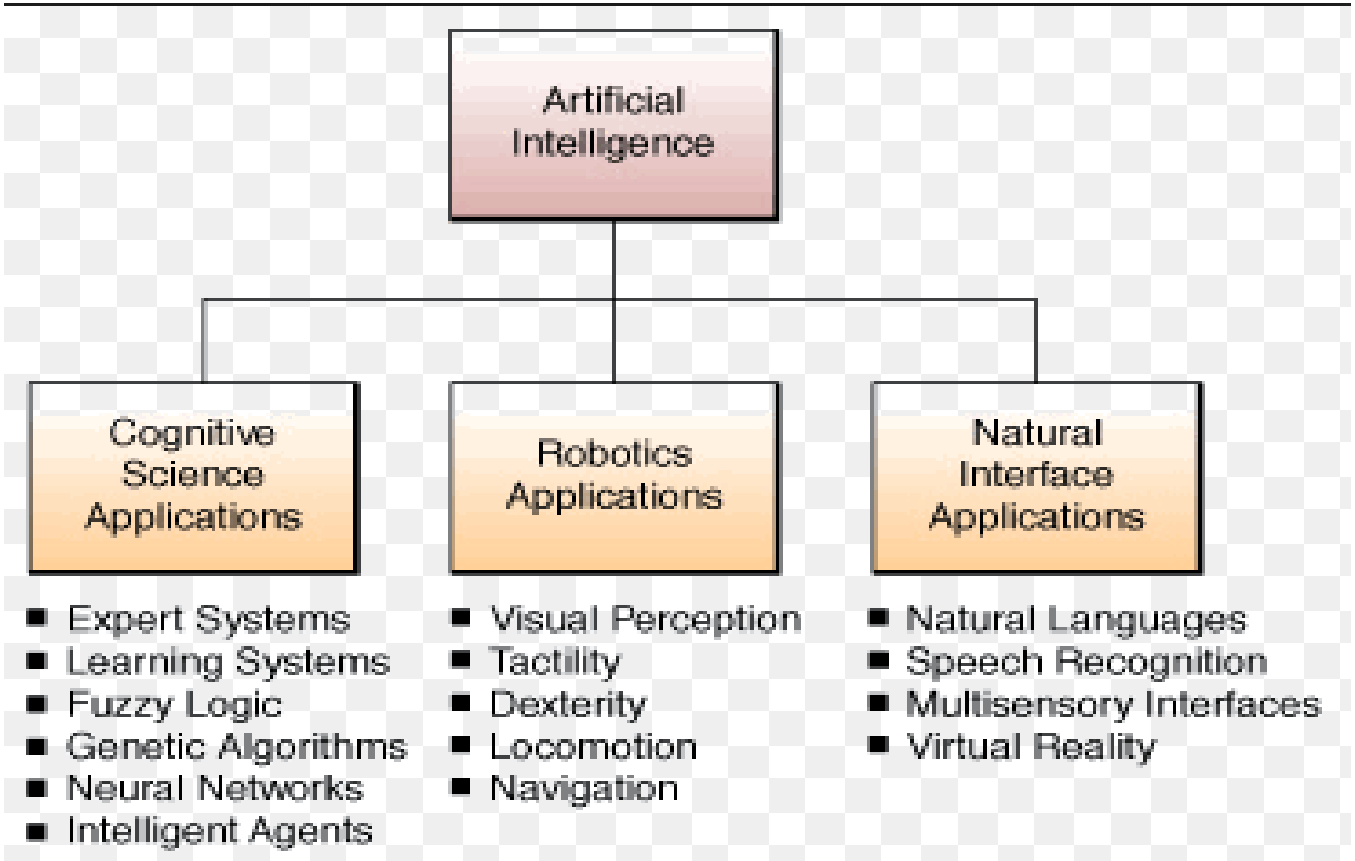
Foundations of AI



Unit 1 Time-line of AI



Unit 1 Application areas of AI



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