CS1504 - ARTIFICIAL INTELLIGENCE

SESSION - 01

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CSE A

a) Face Recognition based smart attendance

Performance: Capturing, Scanning, Power, data, speed, storage.

Environment: ~~Moving vehicles~~, light intensities, ~~weather or open environment~~, classroom,

Actuators: Rotation, Scanner, Data comparator, updation

Sensor: Scanner, Camera, Detector, Movement sensor

Performance measure includes rate of capturing, scanning rate, comaring data rate, power consumption of the device, data maintenance and storage occupied.

Environment measure includes ~~performance~~ ~~in moving bodies~~, capturing details in low light intensities and weather conditions, classroom conditions.

Actuators: Rotation of device if necessary, scanner for scanning or detecting faces, comparing captured data & existing data and updating the attendance database.

Sensor includes detection of faces, scanning with precision and movement sensing.

b) online autonomous proctoring system

Performance: Efficiency of handling n students, notification, updation

Environment: communication channel

Actuators: Update or store data

Sensors: Cameras/webcam

Performance description includes efficiency of handling n students at a time, notifying for unique activities of students.

Environment is the communication channel.

Actuators include the updation of collected information on a database.

Sensors include cameras for capturing.

c) Robocup soccer competition

Performance : Score, winning team

Environment: Ball, ground, members of competation

Actuators : Robots, navigator, camera

Sensors : Touch sensor, orientation sensor, communication link, camera.

Performance includes scores obtained and the team that won.

Environment describes the ball used, ground and members are participating robots

Actuators include participating robots that move, navigator that helps it move & camera.

Sensors include touch sensor, orientation sensor to predict the orientation to be changed, communication between robots of same team & cameras for detection.