

NAME:- KRUNAL RANK

Adm. No:- U18C00081

BTECH 3<sup>RD</sup> YEAR



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## AIML

### Assignment 3

Design the following Intelligent Systems using PEAS:-

#### \* Automated Taxi Driver:-

Performance Measure:-

Safety, Time taken, Comfort, Profit Maximization.

Environment:-

Roads, Pedestrians, Traffic signals, Customers, Traffic Police

Actuators:-

Steering wheel, Gearbox, Brakes, Clutch, Accelerator, Horn (Optional:- Sidelights, Front lights, Viper)

Sensors:-

Camera, Proximity Sensor, SONAR, Odometer, GPS, Engine Sensors

#### \* Vacuum Cleaner Agents:-

Performance Measure:- Electricity Consumption, Time minimization, Dirt capture maximization, Precision.

Environment:- Dirty and clean floors

Actuators:- Move left, move right, suck dust, no operation.



Sensors:- Dist sensors, Bag capacity sensor, Bump sensor

\* Music Composer:-

Performance Measure:- Number of measures composed per unit time, Number of instruments, Range of frequencies, Melody and harmony, Pitch, Bass

Environment:-

Software Environment with all preconfigured sound

Actuators:-

None

Sensors:-

Basic codes that captures sound configurations in systems.

\* Aircraft Autoloader:-

Performance Measure:-

Minimum damage to the plane and ground structure  
Minimum casualties, Time efficiency, Fuel economy,  
Cargo must remain intact

Environment:-

Ground, Runway, Airplane hanger



Actuators:-

Throttle, Flaps, Landing gear, Rudders

Sensors:-

Camera, Proximity Sensors, Speedometers

\* Essay Evaluator:-

Performance Measure:-

Maximize score for quality, Minimize score for redundancy, unacceptable language, Plagiarism detection.

Environment:-

Software based program

Actuators:-

None

Sensors:-

File reading software or Camera along with OCR software

\* Robotic Sentry Gun for Keck Lab:-

Performance Measure:-

Maximize True Positive hits, Minimize false positives or hitting neutrals and friends, Power efficiency Maximization



Environment:-

Keck Lab

Actuators:-

Gun, Trigger, Motors, Relay

Sensors:-

Camera, Proximity sensor, Bump sensor

\* Medical Diagnosis System:-

Performance Measure:-

Minimize false positives, minimize cost, Maximize True Positives, Minimize Diagnosis Time

Environment:-

Patient, Hospital staff

Actuators:-

Display questions, Tests, Diagnosis Tests, Diagnosis Results, Treatment, Referral

Sensors:-

Patient's input for questions.