VEL TECH HIGH TECH
DR.RANGARAJAN DR. SAKUNTHALA ENGINEERING COLLEGE

An Autonomous Institution
Approved by AICTE, New Delhi/Affiliated to Anna University, Chennai

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD8705– AI & ROBOTICS

INNOVATIVE ASSIGNMENT–I

Prepared by,

Mrs.J.ELAVARASI
Assistant Professor
Dept. of AI&DS

COURSEDETAILS

Course code	Course name	Year	Sem	Credits	No.of students	No.of batches
AD8705	AI & ROBOTICS	IV	VII	4	35	12

OBJECTIVES:

- To study the Robot Locomotion and types of robots
- To explore the kinematic models and constraints

UNIT I ROBOT LOCOMOTION 9

Introduction to AI and Robotics – robot locomotion – legged mobile robots – wheeled mobile robots– aerial mobile robots.

UNIT II MOBILE ROBOT KINEMATICS 9

Kinematic models and constraints – mobile robot maneuverability – mobile robot workspace –advanced kinematics – motion control.

Course Outcomes:

On completion of the course, the students will be able to:

- Explain the types of Robots
- Narrate the kinematics of Robots

REGISTER NO	STUDENT NAME	PROBLEM STATEMENT	CO	K LEVEL
BATCH 1				
113020243009	JANARTHANAN R	Develop an Blue Prism's Robotic Automation using python	CO1	K2
113020243030	SIVAGNANA KRISHNA A	In robotics, we use DC motors in joints. Sometimes, we see overshoots in the output torque from these DC motors. Can someone please explain why these?	CO1	K2
113020243001	AHMAD AL IRFAN S	How to Develop legged mobile robots in Python	CO1	K3
BATCH 2				
113020243004	ASHWIN S	Develop wheeled mobile robots in Python.	CO1	K3
113020243011	JESHWANTH MUKESH	Demonstrate the concept of aerial mobile robots	CO1	K3
113020243019	MOHAMED FAIZ ALI B	Demonstrate the concept of robot locomotion using Robotic Process Automation(RPA)	CO1	K3
BATCH 3				
113020243015	KOUSHIK V	Design Kinematic models and constraints using python.	CO1	K2
113020243016	LENIN VIGNESH J	Implement mobile robot maneuverability.	CO1	K2
113020243006	DENNIS ABRAHAM R	Implement mobile robot workspace	CO1	K2
BATCH 4				
113020243029	SARAN K	Illustrate the concepts of robot workspace with real time example .	CO2	K3
113020243034	VIJAY T	Demonstrate the concept of advanced kinematics	CO2	K3
113020243027	SANJAY R	How to Solve using motion control in robot kinematics using python.	CO2	K2
BATCH 5				
113020243018	MITHUN KARTHICK J	Explain in detail about Arrangement of the legs of various animals with a neat diagram.	CO2	K3
113020243017	MANOJ PANDI R	Explain in detail about The humanoid robot with specification.	CO2	K3
113020243005	BHARATH S	Explain with an example about Wheel configurations for rolling vehicles.	CO2	K3
BATCH 6				

113020243020	NAVEEN KUMAR P	How to Representing the robot position	CO2	K2
113020243031	SUBASH RAO	Explain in detail about robot kinematic models and constraints	CO2	K3
113020243012	JEYAMURUGAN N	Explain about Holonomic robots	CO1	K3
BATCH 7				
113020243008	GOKULAKRISHNAN K	What are The five basic types of three-wheel configurations and explain.	CO2	K2
113020243002	AJIT REDDY V	Explain about Mobile Robot Workspace	CO2	K3
113020243033	TARUN SAI PYDI	Explain about Holonomic robots	CO2	K3
BATCH 8				
113020243014	KIFA FATHIMA K	What are the components of a robot and explain.	CO2	K2
113020243021	NEVATHETHA R A	What is AI? Why do we implement AI in the robots?	CO2	K2
113020243022	NIVEDITHA S	What are various types of sensors used in the robotics and explain.	CO2	K2
BATCH 9				
113020243013	KAVIN KUMAAR B.S	How to send information from the robot sensors to the robot controllers?	CO1	K2
113020243035	YAKKESHWAR R	What is the degree of freedom in the robotics? How can it be determined?	CO1	K2
113020243028	SANJAY KUMAR V	What are industrial robots? Explain the various types of Industrial robots?	CO1	K2
BATCH 10				
113020243032	SYED SHA ALAM A	How **Robotic Arm Controlled by Touch Screen Display?**	CO1	K2
113020243007	GIRI BABU H	How to implement the **Line Follower Robot?**	CO1	K2
113020243026	SAI SUDHARSEN S	Explain in detail about **Automatic Wall Painting Robot.**	CO1	K3
BATCH 11				

113020243010	JANASHREE S S	Explain in detail about **Metal Detecting Robot Using Microcontroller.**	CO1	K3
113020243025	ROSHINI R	How does robotics technology contribute to space exploration, such as planetary rovers, autonomous spacecraft, and satellite maintenance?	CO1	K2
113020243023	PADMA PRIYA E	What is the role of automation drones and robotics in agriculture and how drones could be the future of Indian farming?	CO1	K2
BATCH 12				
113020243024	PREETHI A	How might the advancement of artificial intelligence impact the possibility of rewriting human memories?	CO1	K2
113020243003	ARULMOZHI C	What is the most complex robot ever made?Why?	CO1	K2