ASSIGNMENT OF TECHNOMORPH

ON

Day 1: Introduction to Robots and Robotics
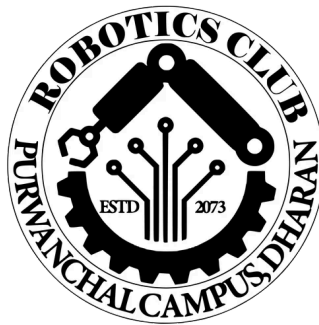

BY

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TO

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TRIBHUWAN UNIVERSITY

INSTITUTE OF ENGINEERING

ROBOTICS CLUB

PURWANCHAL CAMPUS

DHARAN, NEPAL

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1 In Day 1 (Learned Topics)

1.1 What is Robot and Robotics?

- A robot is a machine—usually programmable by a computer—that is capable of carrying out a series of actions automatically. And
- Robotics is the branch of science and engineering focused on the design, building, programming, and operation of robots

1.2 Law Of Robotics

- A robot may not injure a human being or, through inaction, allow a human being to come to harm.

- A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.

- A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

1.3 Types of Robots

- industrial Robots
  - ‣ Robotic arms

  - ‣ Used in manufacturing and factories to do repetitive or dangerous tasks.
- Domestic Robots (Service Robots)
  - ‣ Vacuum robots (e.g., Roomba)

- ‣ Window-cleaning robots

  - – Window-cleaning robots are smart machines designed to automatically clean glass surfaces. They use suction, vacuum, or magnetic systems to stick to vertical surfaces and move around while cleaning.
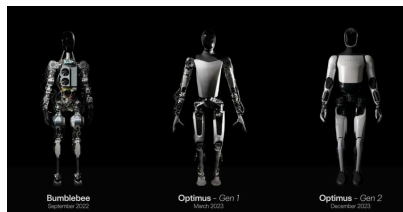
- Humanoid Robots

  - ‣ Sophia (AI robot

  - ‣ NAO
    - – used in education

  - ‣ OPTIMUS ROBOT
    - –

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