**BIPED**

Problem Statement

Simulate and fabricate bipedal robot which can walk over flat terrain by implementing CoM based and ZMP based control and stability techniques.

Tasks to be done

* Design an actuation mechanism for a universal joint. These types of joints are placed at each ankle and hip joints.
* Simulation of static stable gait in ROS-gazebo.
* Design and Fabrication of optimised model for improved agility and efficiency.
* Developing a dynamic model using Lagrangian mechanics.
* Simulation of dynamic gait using non-linear control strategies like SMC, Backstepping, etc