**Robot Navigation**

**(Planning Based Control)**

**Outline:**

1. Navigation Steps.
   1. Perception.
   2. Localization.
   3. Cognition.
   4. Motion Control.
2. Simultaneous Localization and Mapping (SLAM) Definition.
3. Localization Techniques.
4. **Navigation Steps:**
   1. **Perception (Sensing):**

A model of the “real” world is captured in memory using sensors.

* 1. **Localization:**
  2. **Cognition:**
  3. **Motion Control:**

1. **Simultaneous Localization and Mapping (SLAM) Definition:**
2. **Localization Techniques:**