

Practical exam topics

Mobile robots (I-IV)

2016

General

- What is adaptation ability
- What is active sensor?
- What is passive sensor?
- What are the specifications of the infrared reflection sensor based obstacle avoidance?
- What are the specifications of the ultrasonic rangefinder based obstacle avoidance?
- What are the specifications of the computer vision based obstacle avoidance?
- What is structured light and how it helps the vision based obstacle avoidance?

Aerial robots

- What's the difference 'Heading' and 'Bearing'?
- What is the effect of wind to the aerial vehicle?
- What is the waypoint radius and why we use it?

Ground robots

- What is known terrain?
- What is unknown terrain?
- What is wavefront propagation navigation?
- What is rule based navigation?
- What is self learning navigation?
- What's the difference between rule based and self learning navigation?
- What navigation algorithm finds the path always?
- What navigation grants the shortest path?
- What navigation grants the safest path?