Robot Navigation using SLAM

Ibrahim Musba

https://www.youtube.com/watch?v=SeNLUW79_-c   Video 3:31

Simultaneous Localization And Mapping: A Survey of Current Trends in Autonomous Driving
Guillaume Bresson, Zayed Alsayed, Li Yu, Sébastien Glaser

https://hal.archives-ouvertes.fr/hal-01615897/file/2017-simultaneous_localization_and_mapping_a_survey_of_current_trends_in_autonomous_driving.pdf

Particle Filters Basic Idea   Video 2:53

https://www.youtube.com/watch?v=_LjBba2hnfk

Monte Carlo Localization: Efficient Position Estimation forMobile Robots

http://robots.stanford.edu/papers/fox.aaai99.pdf

Augmented Monte Carlo Localization

Augmented Monte Carlo Localization (aMCL) is a Monte Carlo Localization (MCL) that introduces random particles into the particle set based on the confidence level of the robot's current position.

Claus Brenner   Series of Lectures on YouTube

Introduction 6:36

https://www.youtube.com/watch?v=sxu6_YnZca8&index=2&list=PLpUPoM7Rgzi_7YWn14Va2FODh7LzADBSm

He covers SLAM and path planning in more than 50 short lectures

Cyrill Stachniss

http://ais.informatik.uni-freiburg.de/teaching/ws13/mapping/   Complete Class and pdfs

SLAM Course - 01 - Introduction - Cyrill Stachniss

https://www.youtube.com/watch?v=V9qQc5X7O0k

SLAM Course - 09 - Particle Filter Intro – Cyrill   29:45

https://www.youtube.com/watch?v=w0hH0bRF1zk