Research Interest May 2017

Assist.Prof.Dr. Besime Erin

My research interest is the simulation of path planning in robotics area. This may include a simulation software where four algorithms are used.(potential field method, adaptive navigation method, vector field histogram plus and fuzzy navigation)

In my project a software has been developed with three of the algorithms listed above. The objective is to teach undergraduate students these path planning algorithms by paying attention to their characteristics and their differences in working. The software has a graphical user interface where the user can draw rectangles and elipses as he or she desires and the user also can determine the starting and ending points of navigation on the canvas. The user then runs the simulation software by choosing one of the algorithms listed above. This feature helps us see graphically the differences between the algrorithms.

Also there is the option in the software that changes the results by adjusting the different parameters of algorithms. This is done in order to help the students analyze the software and learn by changing the different parameters in the software.