Abstract

There has been countless researches for vision based navigation and control in the field of autonomous mobile robot. Vision which was costlier in terms of processing power was not good enough for real time application in early days of robotics. But with new approaches, better computational power and effective algorithm, vision was area of interest for many researches for better navigation of robot which produced numerous research opportunities. For localization, automatic map construction, autonomous navigation, path following, inspection,
monitoring or risky situation detection vision is most commonly used approach. This paper surveys almost all those papers by researchers whose works provided wide and numerous break-through in visual navigation techniques for land, aerial and autonomous underwater vehicles in the field of autonomous mobile robot.

References

- Alessandro Di Fava, Massimo Satler and Paolo Tripicchio: Visual navigation of mobile robots for autonomous patrolling of indoor and outdoor areas, 23rd Mediterranean Conference on Control and Automation (MED) June 16-19, 2015
- Christian Szegedy, Wei Liu, Yangqing Jia, Pierre Sermanet, Scott Reed, Dragomir Anguelov, Dumitru Erhan, Vincent Vanhoucke, Andrew Rabinovich: Going Deeper with Convolutions, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015 ,1 -9, 10. 1109/CVPR. 2015. 7298594
Survey: Visual Navigation for Mobile Robot

(1997)


Survey: Visual Navigation for Mobile Robot

Engineering, (ICEE2012), May 15-17, Tehran, Iran, 2012
- Yong Zhu, Changguo Sun, Zhixin Han, Chaofa Yu: A visual navigation algorithm for mobile robot in semi-structured environment, IEEE International Conference Computer Science and Automation Engineering (CSAE), 2011

**Index Terms**

Computer Science

Artificial Intelligence
Keywords
Mobile Robots  Visual Navigation