Survey: Visual Navigation for Mobile Robot

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.

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Index Terms

Computer Science
Artificial Intelligence
Keywords
Mobile Robots  Visual Navigation