Computational Geometry, Image Processing and Robot Path Planning

Ray Jarvis

Intelligent Robotics Research Centre, Monash University, Australia

Abstract. The unlikely mix of the above topics conspire powerfully to provide a solid basis for autonomous robot navigation support in known, initially unknown and time varying environments. This presentation explores some of the relationships involving Computational Geometry, Image Processing and Path Planning in the context of Intelligent Robotics, with a variety of experimental case studies to demonstrate some useful results.