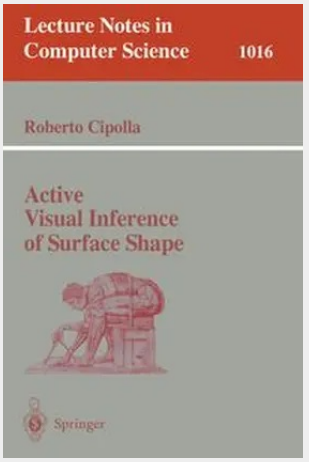
Cipolla

Active Visual Inference of Surface Shape

This monograph is devoted to the problem of inferring geometric information about arbitrarily curved surfaces from visual cues; this is a central problem in computer vision with immediate relevance for robot manipulation and navigation.
The author develops computational theories and techniques relating visual information arising from viewer movements to the differential geometry of visible surfaces. The theories developed have been implemented and tested using a real-time tracking system based on deformable contours. Applications of the techniques to geometric modelling, obstacle avoidance, navigation, and object manipulation are presented.

This monograph is devoted to the problem of inferring geometric information about arbitrarily curved surfaces from visual cues; this is a central problem in computer vision with immediate relevance for robot manipulation and navigation. The author develops computational theories and techniques relating visual information arising from viewer movements to the differential geometry of visible surfaces. The theories developed have been implemented and tested using a real-time tracking system based on deformable contours. Applications of the techniques to geometric modelling, obstacle avoidance, navigation, and object manipulation are presented.



53,49 €
49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540606420
Medium: Buch
ISBN: 978-3-540-60642-0
Verlag: Springer
Erscheinungstermin: 04.12.1995
Sprache(n): Englisch
Auflage: Erscheinungsjahr 1995
Serie: Lecture Notes in Computer Science
Produktform: Kartoniert
Gewicht: 690 g
Seiten: 196
Format (B x H): 216 x 279 mm