Cover Image

Abstract

The cover image, by P. Aïdan et al., is based on the Technical Note Bilateral vagal automatic periodic stimulation in single-incision transaxillary robotic total thyroidectomy, DOI 10.1111/coa.12698.

... [Show full abstract]
Aiming at dealing with the problems of traditional inspection robot, such as low accuracy of path identification, an embedded intelligent inspection robot based on image processing is developed. With uCOSs efficient real-time control ability and image processing technology, the robot can follow the line automatically. The experiment showed that the intelligent robot can identify the path ... [Show full abstract]
Shaft inserting is a frequent and important operation for automatic parts assembly. We have developed a sensor that can detect in real time the position of hole center and its inclination using a 2D position sensitive device (PSD). The sensor can detect the hole position by using the signals for the center of the light part. When the hole is inclined, a black ellipse image is focused on the PSD, ... [Show full abstract]
A vision based system for on-line three-dimensional coordinate measuring has been developed. The setup, called photogrammetric station, consists of video cameras and a processor unit which performs the coordinate transformations from the image coordinates to the object coordinates. The point wise measurements are made for distinct object points which may be located automatically or by additional ... [Show full

abstract]
This paper addresses the utility of intelligent autonomous robotic arm for automatic removal of defective products in an industry. The task can be performed in two steps, finding the defective product with digital image processing and removal of defective part from the products. The image is regularly obtained and compared with the standard image. The defective product is sorted out based on ... [Show full abstract]
The authors propose an expanding technique for template matching to detect the object under the outdoor environment. The edge image is used under the outdoor environment. The template converts the edge image into the binary edge image and the template of the binary edge image is matched to an unknown edge image. As a result, change in the edge image is robust compared with template matching ... [Show full abstract]
A visual automatic objective cognition method using human instruction for robot imitation learning is proposed. The image sequences of human instruction are segmented into some sets of image s sequences of object using dynamic detection. These images are extracted from some features in the defined features pool to construct a features database. Features in this database are clustered based on ... [Show full abstract]

No full-text available