



Sensor Fusion Based Plastic Bottles Classification System

By Tachwali, Yahia

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Machine vision, signal processing and artificial intelligence techniques | Plastic bottles are increasingly becoming a serious environmental problem. They are a major part of the municipal waste due to their low density to volume ratio and non-biodegradable nature. Therefore, intensive research efforts have been made to provide solutions to improve the efficiency of plastic bottles recycling techniques. However, many of these solutions focus on the plastic chemical composition or color classification. This book presents the design and implementation of an automatic plastic bottles classification system based on the combination of color and chemical property. The system has hardware and software architectures. The hardware architecture consists of a computing device, a CCD camera and an NIR spectrometer. The software architecture is developed based on statistical classifiers and sensor fusion techniques. The proposed system testing showed major enhancements in plastic bottles sorting accuracy based on the fusion of camera images and the spectrum signature of plastic bottles. This study should shed some light on a new classification system solution and should be especially useful to professionals in plastic recycling and environment protection industry. | Format: Paperback | Language/Sprache: english | 234 gr | 168 pp.



READ ONLINE
[4.26 MB]

Reviews

It is one of my personal favorite books. It is written in easy terms and never hard to understand. It has been designed in an exceedingly easy way and it is only after I finished reading this publication that I changed my way of thinking.

-- **Lucinda Stiedemann**

Absolutely essential study ebook. It is among the most remarkable books I have read through. You will like how the author composed this PDF.

-- **Jessie Rau**

Other PDFs



[The genuine book marketing case analysis of the the lam light. Yin Qihua Science Press 21.00\(Chinese Edition\)](#)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2007-01-01 Pages: 244 Publisher: Science Press Welcome Our service and quality to your satisfaction. please tell your friends...



[The Adventures of Sheriff Williker: /Book 1: The Case of the Missing Horseshoe](#)

Createspace, United States, 2014. Paperback. Book Condition: New. Kim Hansen (illustrator). large type edition. 216 x 216 mm. Language: English . Brand New Book ***** Print on Demand *****.A missing horseshoe for a prize winning horse.a set of mysterious footprints.suspicious looking characters....



[The Pursued: Is That Drum Beats? Lamar Stein Heard Beats Warning of an Evil Set Loose on Piedmont! This Is the Root Hard or Die Story of the Life and Times of My Father and Mother. My Sister and Me, Bystanders on Appalachian Mountains Hillside. \(Paperbac](#)

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Euphoria broke out in the hitching alley by the time my father reached Main Street s boardwalk. Farmer s wives...



[The Adventures of a Plastic Bottle: A Story about Recycling](#)

SIMON SCHUSTER, United States, 2009. Paperback. Book Condition: New. Children s Tk, Pete Whitehead (illustrator). Original ed.. 203 x 196 mm. Language: English . Brand New Book. Learn about recycling from a new perspective! Peek into this diary of a plastic bottle...



[Write Better Stories and Essays: Topics and Techniques to Improve Writing Skills for Students in Grades 6 - 8: Common Core State Standards Aligned](#)

Createspace Independent Publishing Platform, United States, 2012. Paperback. Book Condition: New. 277 x 211 mm. Language: English . Brand New Book ***** Print on Demand *****.Mr. George Smith, a children s book author, has been conducting writing workshops at schools since 2004....



[Becoming Barenaked: Leaving a Six Figure Career, Selling All of Our Crap, Pulling the Kids Out of School, and Buying an RV We Hit the Road in Search Our Own American Dream. Redefining What It Meant to Be a Family in America.](#)

Createspace, United States, 2015. Paperback. Book Condition: New. 258 x 208 mm. Language: English . Brand New Book ***** Print on Demand *****.This isn t porn. Everyone always asks and some of our family thinks it is for sure.but it s not....