Patent Search

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Inventor

Name	Address	Country	Nationality
Dr. V. SUJATHA	Professor, Department of Electronics and Communication Engineering, Shree Sathyam College of Engineering and Technology, 8/55 Street, Ammapalayam, Thevur, Sankari, Salem District-637104, Tamilnadu, India Ph: 7598251217 E-Mail: sujatha1291972@gmail.com	India	India
Dr. S. THAIYALNAYAKI	Associate Professor, Department of Computer Science and Engineering, Bharath Institute of Higher Education and Research, 173, Agharam Roadt, Selaiyur, Chennai-600073. Ph: 9566208899, E-Mail: thaiyalvijayo@gmail.com	India	India
Mrs. K. SATHIYA PRIYA	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 9600654587 E-Mail: priya.sathiya18@gmail.com	India	India
Mrs. K. ANURANJANI	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 7305638007 E-Mail: sanuranjani@gmail.com	India	India
Mrs. R. JAGADEESWARI	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 9597522512 E-Mail: jagajracademic@gmail.com	India	India
Dr. S. DEEPAJOTHI	Associate Professor, Department of Computer Science and Engineering, Nagarjuna College of Engineering and Technology, Mudugurki, Venkatagiri Kote Post, Devanhalli, Bangalore- 562 164. Ph: 9488451925 E-Mail: phddeepajothis@gmail.com	India	India
Dr. RAJESWARI VISWANATHAN	Professor, Department of Electrical and Electronics Engineering, BVRIT Hyderabad College of Engineering for Women, Rajiv Gandhi Nagar, Bachupally, Hyderabad-90. Ph:9440344130 E-Mail: rajeswari.v@bvrithyderabad.edu.in	India	India
Dr. P. NITHIYANANTHAM	Professor, Department of Electronics and Communication Engineering, Shadan Women's College of Engineering and Technology, KhairatabadHyderabad - 500 004. Ph: 9524274489 E-Mail: palanisamy.nithiyanantham@gmail.com	India	India
Dr. VIJENDRA SINGH	Professor, School of Computer Science, University of Petroleum and Energy Studies, Dehradun, Uttarakhand, India-248007. Ph: 91-8800642397 Email: vsingh.fet@gmail.com; vijendra.singh@ddn.upes.ac.in	India	India
Dr. J. SAMUEL MANOHARAN	Professor, Department of Electronics and Communication Engineering, Sir Isaac Newton College of Engineering and Technology, Papakoil, Nagapattinam – 611102, South India. Ph:8220567732 E-Mail: drjsm1530@ieee.org	India	India

Applicant

Name	Address	Country	Nationality
Dr. V. SUJATHA	Professor, Department of Electronics and Communication Engineering, Shree Sathyam College of Engineering and Technology, 8/55 Street, Ammapalayam, Thevur, Sankari, Salem District-637104, Tamilnadu, India Ph: 7598251217 E-Mail: sujatha1291972@gmail.com	India	India
Dr. S. THAIYALNAYAKI	Associate Professor, Department of Computer Science and Engineering, Bharath Institute of Higher Education and Research, 173, Agharam Roadt, Selaiyur, Chennai-600073. Ph: 9566208899, E-Mail: thaiyalvijayo@gmail.com	India	India
Mrs. K. SATHIYA PRIYA	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 9600654587 E-Mail: priya.sathiya18@gmail.com	India	India
Mrs. K. ANURANJANI	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 7305638007 E-Mail: sanuranjani@gmail.com	India	India
Mrs. R. JAGADEESWARI	Assistant professor, Department of Computer Science and Engineering, Bharath institute of Higher education and research, 173, Agharam Road,selaiyur, Chennai-600073. Ph: 9597522512 E-Mail: jagajracademic@gmail.com	India	India
Dr. S. DEEPAJOTHI	Associate Professor, Department of Computer Science and Engineering, Nagarjuna College of Engineering and Technology, Mudugurki, Venkatagiri Kote Post, Devanhalli, Bangalore- 562 164. Ph: 9488451925 E-Mail: phddeepajothis@gmail.com	India	India
Dr. RAJESWARI VISWANATHAN	Professor, Department of Electrical and Electronics Engineering, BVRIT Hyderabad College of Engineering for Women, Rajiv Gandhi Nagar, Bachupally, Hyderabad-90. Ph:9440344130 E-Mail: rajeswari.v@bvrithyderabad.edu.in	India	India
Dr. P. NITHIYANANTHAM	Professor, Department of Electronics and Communication Engineering, Shadan Women's College of Engineering and Technology, KhairatabadHyderabad - 500 004. Ph: 9524274489 E-Mail: palanisamy.nithiyanantham@gmail.com	India	India
Dr. VIJENDRA SINGH	Professor, School of Computer Science, University of Petroleum and Energy Studies, Dehradun, Uttarakhand, India-248007. Ph: 91-8800642397 Email: vsingh.fet@gmail.com; vijendra.singh@ddn.upes.ac.in	India	India
Dr. J. SAMUEL MANOHARAN	Professor, Department of Electronics and Communication Engineering, Sir Isaac Newton College of Engineering and Technology, Papakoil, Nagapattinam – 611102, South India. Ph:8220567732 E-Mail: drjsm1530@ieee.org	India	India

Abstract:

ENSURING THE PACKAGING OF QUALITY FRUITS THROUGH APPROPRIATE SELECTION BY IMPLEMENTING THE IMAGE PROCESSING TECHNIQUE ABSTRACT OF THE INVENTION The demand for fruits is increases every year due to its rich contents. The fruits-based economy plays a vital role in the entire agriculturally based economy in all nations. However, fruits damages are found to be one of the major issues for the wastages and it incurred cost losses. By avoiding the damages of fruits, the considerable amount can be saved. Hence, the system which address the above-mentioned issue should be focused. The main objective of the invention is to develop the system which effectively identify the damaged fruits and ensures the packaging of quality fruits through appropriate selection. This has been done by implementing the image processing technique. This invention comprises of many subcomponents such as fruits inspection chamber, entry monitor, fruits tray, Robot Assembly unit and exit monitor. Apart, the fruits inspection chamber also consists of digital capturing camera, Fruits transferring tray, Tray transferring Roller, Motor coupling mechanism and the base frame. The inspection of fruits carried out at the inspection chamber The Tray transferring Roller ensures the smooth movement of the fruit tray through coupling motor. At inspection chamber, the image of fruits is captured through the camera and it is transferred for the image analysis. The grid and such an arrangement are used to identify and locate the damaged fruits. Once the damaged fruit is identified at the particular tray, the grid section is identified and marked and the same is communicated to the robot assembly unit. The robot arm of the robot assembly unit picks the damaged fruit. At the exit monitor, the net count is updated and displayed immediately. Through this invention, the time and the man power requirement for carried out the test is reduced, the accuracy of testing of fruits has been improved and through which customer's satisfaction is achieved as whole by ensuring the supply of quality fruits.

Complete Specification

Claims:1. Ensuring the packaging of quality fruits through appropriate selection by implementing the image processing technique comprises of,

a. Fruits inspection chamber
b. Entry monitor
c. Fruits tray
d. Robot Assembly unit
e. Exit monitor

2. Ensuring the packaging of quality fruits through appropriate selection by implementing the image processing technique according to claim 1, wherein the fruits inspection chamber further comprising of image capturing camera, Fruits transferring tray, Tray transferring Roller, Motor coupling and base frame.
3. Tray transferring Roller according to claim 2, wherein the tray transferring Roller is connected with the motor mechanism for the smooth movement of the fruit tray.
4. Ensuring the packaging of quality fruits through appropriate selection by implementing the image processing technique according to claim 1, wherein the fruits inspection chamber the coverage of the capturing zone is equal to the size of fruits transferring tray.
5. Ensuring the packaging of quality fruits through appropriate selection by implementing the image processing technique according to claim 1, wherein the fruits inspection chamber, the captured images of the fruits analyzed using image processing technique to identify the damaged fruits.
6. Ensuring the packaging of quality fruits through appropriate selection by implementing the image

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