

**First
Edition**

ISBN . 978-1-387-42404-7



Capt. Dr. Vijendra Anant Chaudhari

ABOUT THE AUTHOR

Vijendra Anant Chaudhari has completed his Doctor of Philosophy in Physics at Dr. B.A.M. University Aurangabad. He is working as an Assistant Professor at Department of Physics, Dayanand Science College Latur. He has published 35 research articles in international journals as well as conferences. He is a reviewer for many journals. He has expertise in synthesizing and investigating nanomaterials using variety of chemical methods. Recently, the authors have pursued research on perovskite-structured ferroelectric material which is widely used in many technological applications. They synthesized and characterized ferroelectric materials using various chemical routes to obtain nanostructural materials and also worked on electrical and dielectric properties in the MPB region.

**Materials for
OPTOELECTRONIC APPLICATIONS**

Capt. Dr. Vijendra Anant Chaudhari



STATPERSON PUBLISHING CORPORATION
First floor, City Hand Building, Near S.B. Bus Stop, Aurangabad,
Aurangabad, Maharashtra INDIA. 431001.
website: www.statperson.com



9 781387 424047

STATPERSON PUBLISHING CORPORATION

Index Page

Content

Chapter 1: Optical, Lower Microwave and radio frequency Response of Binary Mixtures of Organic Liquids - A dielectric approach

Chapter 2: On axis Harmonics Generation in Planer Electromagnet Undulator

Chapter 3: Zinc Oxide Nano Thin film for Solar cell device Applications

Chapter 4: IoT based Object Sorting and portable skin tone meter System

Chapter 5: Structural and Optical Properties of Lead Zirconate Titanate Prepared by Solid State Route.

Chapter 6: Preparation of ZnO Thin Films by Modified Chemical Methods

Chapter 7: An Intelligent Agricultural Manipulations using IoT

Chapter 8: Zn doped CdS thin films by Chemical bath deposition (CBD) technique

First Page

ORIGINAL RESEARCH

IoT based Object Sorting and portable skin tone meter System

P. Girgaon¹, V.A. Chaudhari², P. Sutar³, P.D. Rupanwar⁴, T.H. Mujawar⁵

¹Department of Physics, Dayanand Science College, Latur, 413 512, M.S. India.

^{2,3,5}Department of Electronic Science, School of Physical Sciences, P.A.H. Solapur, University, Solapur, 413255, M.S. India.

⁴T C College of Arts, Science and Commerce, Baramati, 413 102(MS) India.

ABSTRACT

Background: There is an extensive convention of numerous products in our daily life and built-up of this products are completed in various big scale and petite scale industries. Arranging causes class uniformity problem. Currently the major intricacy explicitly faced subsequent to the manufacture is of categorization. Arranging of objects in an industry is a tedious contemporary procedure, which is done actually. Consistent physical necessitate of this variety of machine in the industries will assist in arrangement the machine according to their load, bulk, color, shape, etc. This paper gives succinct information regarding the categorization of objects according to their color using TCS3200 sensor, Arduino UNO and servo motors. The recognition of color is made by frequency scaling of color detection.

Keywords: Internet of Things (IoT), Color Sensor, Arduino Uno, TFT LCD, Blynk Platform.

Corresponding Author: Dr. Sarika Jadhav, Department of Physics Sant Tukaram College of Arts and Science, Parbhani, India.

Email: thmujawar@sus.ac.in

INTRODUCTION

The Internet of Things (IoT) will be a current association sculpt that envisions a not so distant prospect, clinched beside which those questions from claiming customary usual attendance will be furnished for microcontrollers for electronic correspondence. IoT contains two well-known words Internet and Things. While, Internet helps the data to be sent, receive or still commune with the devices[1]. The efficient and vigorous scenery of cloud computing allows users to create their applications on it. Cloud acts as a best option for IoT that stores all the data from sensor and also accessed from remote locations [2]. For earlier outlook, the IoT is leading to have dwelling and commerce utilizes, to adjoin to the private contentment. For example, smart homes will sanction their resident to naturally unlock their carport when reached at home, set up their TVs and various gadgets. The conclusion is to comprehend this impending growth, mounting advances and opinion, applications required to extend comparatively to synchronize market requirements and buyer's need. Today there are various fields where the sorting of two different objects on the basis of their color nature is mandatory. To do the task very effectively the various color sensor are developed. This is a simple project consisting of color sensor using Arduino Uno R3 and TCS3200 color sensor module. It can be helpful for color recognition and revealing for food-processing units, color printer applications, skin-tone meter applications and other industrial applications including robotics. This paper depicts primary colors (red, green and blue, or RGB)—colors that are actually accessible in LEDs in one package; e.g., common cathode or common-anode RGB