

## Experimental Production and Comparison of Biogas Using Co-Digestion of Organic Waste

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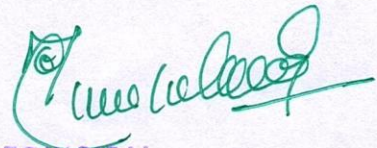
**CH.Mounika**, Assistant Professor, Department of civil engineering, AMRITA SAI Institute of science and Technology, Vijayawada, Andhra Pradesh, India.

### Abstract:--

Environmental pollution is one of the major problems plaguing the modern world today. The environment and the various elements in the environment need energy to meet their need. So there is a need to produce energy from different sources. Solid Waste is one such material that can be used as a source for deriving energy. The studies on conversion of solid waste to energy have resulted several alternatives including the biogas production from biodegradable organic waste. There are several alternatives in the estimation of biogas yield from bio degradable fraction of solid waste. The different types of biodegradable organic waste may comprises of cow dung, pig waste, poultry manure, food waste, vegetable waste, kitchen waste etc[9]. The present study focuses on production of biogas using cow dung with vegetable waste and poultry manure. In this study, by doing experimentation it is observed that the production of biogas from co-digestion of different organic waste is more than individual waste. The highest yield of biogas is obtained from co-digestion of cow dung with poultry manure than co-digestion of cow dung with the vegetable waste. Waste produced after the production of biogas is used as natural fertilizers for the growth of crops and fields and it gives good yield. By experimentations like energy recovery from solid waste, the conservation of non renewable energy resources may be possible and it also helps to protect our environment [16].

### Keywords:

Pollution, Biogas, Co-Digestion, Cow Dung, Poultry Waste, Vegetable Waste.



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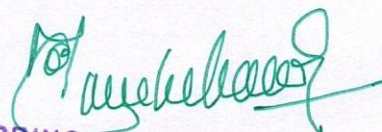
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# Image Fusion Technique Using Gaussian Pyramid

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**Abstract.** The aim of image fusion is to combine similar information from multiple images into a single image. The methods which are based on discrete cosine transform (DCT) of image fusion are more competent and time-saving in real-time systems using DCT based standards of still Image. The existing DCT based methods are suffering from some side effects like blurring which can reduce the quality of the output image. To address this issue, the paper proposing new method for image fusion using Gaussian pyramid in DCT domain. The pyramid fusion provides better fusion quality. The execution time is extremely reduced, compare with existing methods. This method can be used for multi model image fusion as well as fusion of complementary images. The algorithm given in proposed system is simple and easy to implement. Also, it could be used for real time applications. The performance of our method is analyzed and compared with other image fusion methods. Experimental results show that there is no difference between the result of our method and water-based image fusion result. But our algorithm is carried out in DCT domain; it is efficient in processing time and simple.

**Keywords:** Image fusion · DCT · Wavelet transform · Gaussian pyramid

## 1 Introduction

THE image multi sensor data fusion found to play a vital role in defense as well as in civilian applications because of the availability of diversity of sensors and these are working in various spectral bands. Image fusion, is defined like combine the images to increase the information content. It is a promising area of research. Numerous image fusion algorithms such as multi-resolution [1, 2], statistical signal processing [3, 4] and multi scale [5] based techniques are evaluated. In this paper, a novel technique “image fusion using DCT based Gaussian pyramid” is presented and its performance is evaluated. In all sensor networks, every sensor can observe the environment and transfer data by production. Visual sensor networks (VSN) is the term used in the literature to refer to a system with a large number of cameras geographically spread at monitoring points [6]. A distinguished feature of visual sensors or cameras is the great

# Systematic Method for Detection and Prevention of Fire Accidents in Rail Transport



B. Vanajakshi and N. Mounika

**Abstract** Exemplary embodiment of the present disclosure is directed toward a systematic method for preventing fire in a rail transport. The system includes a flame detector which detects fire at a critical fire point in compartments of a rail transport, a control unit which receives the detected fire information from the flame detector for transmitting digital signals, an alarm unit which notifies the detected fire information to the passengers through an alarm, a liquid-crystal display unit which displays a fire presence compartment number of the rail transport, a power activation and deactivation unit which deactivates a power of the rail transport and activates battery bulbs in the compartments of the rail transport, water sprinkling pipes which split the water in the fire presence compartments, a power relay unit which controls the speed of the rail transport, and emergency services alerting unit which transmits an information of detected fire information to the emergency services through a communication network [1].

**Keywords** Rail transport · Flame detector · Alarm · Liquid-crystal display unit · Power activation and deactivation unit · Water sprinkling pipes

## 1 Introduction

Trains are moderate vehicles which are used for transporting people and goods. Mostly, people prefer train journey for long distance as it is cheaper. But nowadays, fire accidents occur in many trains. The main purpose of a systematic method for preventing fire in rail transport is to rescue the people's life and save the government property [2]. This project will focus on the system that will detect and control the fire accidents in running trains (Fig. 1).

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# Robot Manipulators: Modeling, Simulation and Control with Real Timedata, A Novel method

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## ABSTRACT

Robots are electro mechanical system with mutual interactions of robot mechanics and drives. The prototype of modeling and optimization of a 6 dof robot developed using softwares like solid works, MATLAB with simmechanics. The voice control process is performed for controlling robot. This paper presents the kinematics and dynamics solution in simmechanics and modeling of complex mechatronical systems. Using exact numeric prototype of the robot, make it possible to use optimized controller for the actual robot.

**Keywords:** Robot, Simulation, Voice control.

## INTRODUCTION:

In recent scenario the modeling and simulation performed with advanced software packages. In this paper procedure of a numeric prototype for robotics through developing a virtual robot simulation in MATLAB [1]

RRR Robot [2] is typical features of industrial robot that is used in production lines and often performs pick and place operations. In this paper the various steps attempted to attain the control over the robot manipulator to perform various operations in hazardous environments and also this system helps the people who were suffering with various physical disorders and unable to move their body systems using their voice/speech [4].

This paper emphasis on industrial painting using ABB Robots of IRB 1400. The Robot used in this work is an articulated 6-axis robot. It can be used to do the different kinds of operations like pick and place, assembling, painting and welding. is a 6-axis articulated industrial Robot, designed

## SYSTEM OVERVIEW

The robotic system is defines the mechanics, control, and sensor design of Robots. Mechanics includes the design and structure of manipulators, arms, end-effectors, actuators, power, and energy storage. It also consists of the kinematics, dynamics of Robots, and simulation of Robot Systems. Control includes both theory and implementation (hardware and software) while



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# Real Time Gender Classification Based on Facial Features Using EBGM

Authors Authors and affiliations

D. K. Kishore Galla, BabuReddy Mukamalla

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## Abstract

Presently a day's face acknowledgment is an effect theme in some of security issues introduces progressively applications. In light of every day utilization gadgets, secure shortage is an escalated application in confront extraction. Generally create Principle Component Analysis (PCA) based face acknowledgment in picture preparing, in this they are utilizing skin shading based approach for include extraction and face acknowledgment to enhance the precision of the application. In any case, is it not available for dimensional component extraction in confronting acknowledgment. So in this document, we propose a new & novel approach i.e. Elastic Bunch Graph Matching (EBGM), in highlight extraction to order tight and wide weed utilizing SIFT key-focuses descriptor. Specifically we break down the SIFT key components of weed pictures

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## Entrepreneur Strategies for Women Empowerment

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### ABSTRACT

This paper is based on role of entrepreneur strategies for women empowerment. Women's development is directly related with national development. The effective management and development of women's resources, their abilities, interests, skills and other potentialities are of paramount importance in human resources development. Entrepreneur strategies plays a great role in an encouragement for women entrepreneurship is one of the ways for that. Entrepreneurship development and income generating activities are a feasible solution for empowering women. It generates income and also provides flexible working hours according to the needs of homemakers. Economic independence is the need of the hour. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. These women leaders are assertive, persuasive and willing to take risks. They managed to survive and succeed in this cut throat competition with their hard work, diligence and perseverance. This paper endeavors to study the concept of entrepreneur strategies for women empowerment in India. The strategies, suggestions for the growth of women entrepreneurs-schemes for promotion & development of women entrepreneurship in India.

*KEYWORDS: Entrepreneur strategies, Viable Entrepreneur, Women Empowerment.*



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