





KJ'S EDUCATIONAL INSTITUTES
TRINITY COLLEGE OF ENGINEERING AND RESEARCH PUNE
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Project Title List
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Sr. No	Roll No	Names of the Student	Email ID	Contact No	Project Title	Name of Guide & Sign	Sponsored/ In-house
1	DS1001	IshaniDhokale	ishanidhokale@gmail.com	9561816695	Implementation of Smart Street Light System Based on Lora Technology	 Dr. S M Handore	
2	DS1002	Mayank Singh	mayanksingh79@gmail.com	7823998790	Intelligent Image Compression Model On the Basis of Wavelet Transform	 Prof. P.P. Chavan	


PG Project Coordinator
Prof. Pratibha Chavan


Head of Department
Dr. Shubhangi Handore



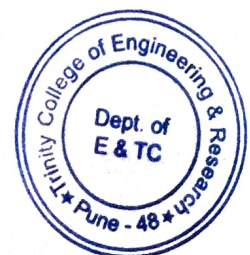
**Project Title : IMPLEMENTATION OF SMART STREET LIGHT
SYSTEM BASED ON LORA TECHNOLOGY**

Name of the Student : MS. ISHANI DHOKALE

Name of Guide : Dr. SHUBHANGI HANDORE

Abstract: The increase in population and the corresponding increase of roads has increased the number of street lights, for the roads and people's safety, which rises investment and energy. Lighting consumes an adequate amount of energy in both outdoors and indoors. However different approaches are being proposed for making systems energy efficient and upgraded with the latest technology. This research gives precise and the best control over energy-efficient street lighting systems. It gives practical implementation using Long Range (LoRa) and Arduino microcontroller using sensors to gather information.

This is the development and implementation of the Smart Street Light control system based on LED lamp and Lora Wireless communication, currently the traditional street light is automatically turned on or off based on a timer or day/night sensor. Recently, conventional light sources are being replaced by LED, which has so many advantages such as energy saving, long life, high reliability, pure light color, fast response and environmental friendliness. In addition, the LED intensity can be easily controlled. In this project, a smart lighting system is designed to control and monitor devices via wireless transmission frequencies below 1 GHz.



Project Title : Intelligent Image Compression Model on the basis of Wavelet Transform and Optimized Fuzzy C-means-based Vector Quantization

Name of the Student : Mayank Singh

Name of Guide : Prof. Mrs Pratibha Pramod Chavan

Abstract: Compressed images are frequently used to accomplish computer vision tasks. There is extensive use of traditional image compression standards including JPEG 2000. However, they would not consider the present solution. We determined a new image compression model that was inspired by the existing research on the medical image compression model. Here the images are filtered at the preprocessing step to eradicate the noises that exist. The images are then decomposed using Discrete Wavelet Transform (DWT). The outcome is then vectored quantized. In this step, we employ Optimisation-assisted Fuzzy c-means clustering for vector quantization with codebook generation. Considering this as an optimization issue, a new hybrid optimization algorithm called Bald Eagle Updated Pelican Optimization with Geometric Mean weightage (BUPOGM) is introduced to solve it. The algorithm is a combination of pelican optimization and bald eagle optimization, respectively. Quantized coefficients are finally encoded via the Huffman encoding process, and the compressed image is represented by the resultant bits. The outcome of the proposed work is satisfactory as it performs better than the other state-of-the-art methods.

Keywords: FCM; VQ; DWT; BUPOGM; Huffman encoding

