**DESIGN AND IMPLEMENTATION OF TEXT FILE ENCRYPTION AND DECRYPTION IN MEDICAL FIELD USING AES ALGORITHM.**

**ABSTRACT**

In recent years, there is a tremendous demand for healthcare systems that establishes a framework to reduce the time required to complete the work and the expensive procedures used to recover a patient’s medical report, along with the constant integration of various sets of medical data to furnish it to the healthcare industry. EHRs (Electronic Health Records) widely permit the insurance companies, patients, and healthcare providers to launch, manage and process the healthcare information of the patients from anywhere at any time. We propose an efficient cryptosystem for data encryption and authentication. Some of data might be transmitted through insecure channel from sender to receiver. Cryptography is one of the most significant and popular techniques to secure the data from attackers by using two vital processes that is Encryption and Decryption. Cryptography algorithms uniquely define the mathematical steps required to encrypt and decrypt messages in a cryptographic system. Shortly, they protect data from unauthorized access. Advanced Encryption Standard (AES) is the most commonly used algorithm for data encryption and widely symmetric block cipher algorithm. In this project, AES algorithm can be applied on text file, it perception of binary-coded form and generating of cipher keys is used to encrypt the data file. Encryption is the process of encoding data to prevent it from intruders to read the original data easily. This stage has the ability to convert the original data (Plaintext) into unreadable format known as Cipher text. Encryption is the process of converting the plaintext into cipher text using a key. In this system **GAN** used to provide both security and safe to encrypted and decrypted of the data effectively. After a brief literature review, we compared and analyzed the complexity of several existing methods in order to provide efficient results. Various studies regarding this concern have been performed to ensure these requirements by hybridizing different domains, such as spatial and transform domains. The results indicate that the proposed cryptosystem provides high performance and enhanced security.

**DIABETES PREDICTION USING MACHINE LEARNING ALGORITHMS WITH FEATURE SELECTION AND DIMENSIONALITY REDUCTION**

**ABSTRACT**

In today’s world diabetes has become one of the most life threatening and at the same time most common diseases not only in India but around the world. Diabetes is seen in all age groups these days and they are attributed to lifestyle, genetic, stress and age factor. Whatever be the reasons for diabetics, the outcome could be severe if left unnoticed. Currently various methods are being used to predict diabetes and diabetic inflicted diseases. In the proposed work, we have used the Machine Learning algorithms Support Vector Machine (SVM) that would help to identify the potential chances of getting affected by Diabetes Related Diseases. After pre-processing the data, features which influences the prediction are selected by implementing step forward and backward feature selection. The Principle Component Analysis (PCA) dimensionality reduction method is analyzed after the selection of specific features and the accuracy of the prediction is 83% implementing which is significant in comparison with Support Vector Machine (SVM) with accuracy of 81.4%.

**DETECTION OF BANK ROBBERY USING DEEP LEARNING APPROACH**

**ABSTRACT**

Tracking is an important component in various traffic monitoring systems and detection of various web applications, security infrastructures, safety monitoring, and recognition of objects for mobile devices etc. One major application area of this process is that the detection of robbery. Deep learning is the segment of artificial intelligence which is involved with imitating the learning approach that human beings utilize to get some different types of knowledge. There are some concepts which is also used in Deep learning as a basic problems of computer vision and multi-media content analysis in video analysing. The real time weapon detection system with the ability to automatically recognize the video images and the images will be capture and send to police station with the help of SMTP protocol. The ability is to automatically analyse the video images and the images with weapon and knife object is detected alerts are automatically. A digital surveillance system where the CCTV camera and target for small-scale user is developed. The latest technologies are to find the thefts activities and destruction used by video surveillance system. By using this, it is possible to capture and monitor by the user at each and every moment and each and every second of the area coverage. The up-to date technologies used are user-friendly for the environment, for example the monitoring systems which is to identify the human behaviour in detecting the crime not to actively participate in stopping the crime. Therefore, the proposed methodology is to detect the motion in a live video stream environment and it generate alert by sending alert message to nearest Police station (or) Security service.

**DESIGN AND DEVELOPMENT OF APPLICATION FORCRIME SCENE INVESTIGATION USING CONVOLUTIONAL NEURAL NETWORK**

**ABSTRACT**

Deep convolutional Neural Networks (CNNs) are a special type of Neural Networks, which have shown state-of-the-art performance on various competitive benchmarks. The powerful learning ability of deep CNN is largely due to the use of multiple feature extraction stages (hidden layers) that can automatically learn representations from the data. Crime Investigation, with special reference to homicide cases, involves intensive and phase wise collection of data. In this project, we discuss a technique for comparing previously available data of the homicide cases with the current one. The system to be developed here is based upon convolutional neural network and is intended to be used by homicide detectives and other special task personnel for providing improved reports. The objective is thus to provide an automated crime analysis system (ACS) which is based upon an convolutional neural network (CNN). The system also provides a crime visualization feature that gives the user a pictorial representation of crime details. This feature uses an incremental approach to represent the suspects and their concerns. Thus an elaborated visual description is achieved.