

Publications



7. NPQuant: A Robust Quantum Inspired Computation Algorithms as an efficient solution to NP-Complete Problems (Under Review)
6. Exploring the Impact of Generative AI on Future of Businesses (International Conference on Legal and Economic Synergy for an Equitable Society| University Institute of Laws, Panjab University Regional Centre, Ludhiana)
5. AttriML: An Intelligent Approach to Predict Employee Attrition Using Exploratory Machine Learning (Conference paper published in International Conference on Self Sustainable Artificial Intelligence Systems| IEEE Xplore)
4. Unveiling Vulnerabilities: Evading YOLOv5 Object Detection through Adversarial Perturbations and Steganography (Accepted | Multimedia Tools and Applications)
3. Predicting the Severity of Epilepsy -Under Review| Malaysian Journal of Computer Science)
2. Application of Deep Learning in Epilepsy: A Catalyst in Better Diagnosis of Epileptic Seizures and Prevention (IGI Global)
1. Impact of IoT on Web Design and Development (Conference Paper published in UGC-sponsored National Seminar)

Projects



7. Impact of Generative AI on Future of Businesses| Jan 2024 -Current

6. Deepfake Detection| Feb 2023-June2023

Analysed various approaches and models like YIX(YOLOv5- InceptionResNet-XGBoost), Blinking, Remote photoplethysmography (RPPG), Liveness Detection (SIFT, LBP, Gray Level co-occurrence matrix), Multi-Identity Size Invariant Timesformer for Deepfake Detection.

5. Evading YOLOv5 Object Detection through Adversarial Perturbations and Steganography| June 2022-Aug 2022

Developed machine learning attack for object misclassification (for fooling the YOLOv5 model) using image in image steganography. Also did steganalysis using Xiao Steganography to prove the effectiveness of the attack.

4. Predicting Severity of Epilepsy| Feb 2022-May2022

Predicting the Severity of Epilepsy using EEG data through spike rate and analysing it using a Global assessment of the severity of epilepsy (GASE) scale.

3. Impact of Social Distance and Vaccination on Covid-19| Aug 2021-Oct 2021

Developed Extended SEIR epidemiological that aids in understanding the Impact of Social Distancing and Vaccination on COVID-19. This project could be a breakthrough in

field of epidemiology when studying infectious diseases. This is achieved through analysing various stages of infection, hospital resources and vaccination rates.

2. Breast Cancer Detection| Aug 2020 - Aug 2020

Early Breast cancer detection, diagnosis and its possibility using ANN.

1. MUJ ON TRACK| Aug 2019 - Jan 2020

Android application that focuses on navigation in the various blocks of the university campus using Maps SDK for Android.