Title: Human Activity Detection, Recognition, and Prediction for Crime Scene Analysis in Surveillance Video Footage.

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Abstract:

Forensic research in surveillance videos involves the scientific analysis of video footage from
CCTV systems. Crime scene analysis in surveillance videos is used to systematically examine and interpret crimes in scenes to reconstruct the events of a crime, identify potential suspects, and ultimately support the prosecution of offenders. It involves meticulous documentation, evidence collection, and analysis to determine which types of crimes occurred and who might be responsible. This field utilizes specialized Artificial Intelligence (AI) techniques to enhance and interpret evidence from crime scenes, playing a crucial role in criminal investigations, security assessments, and accident reconstructions.

The research on Human detection, Human motion detection, recognition, and prediction of different crime activities with weapons, from surveillance video footage, involves using computer vision and machine learning techniques to identify, classify, and forecast criminal behaviors. The technology can be crucial for crime scene analysis by enabling automated identification of suspicious activities and potential threats.

In this article, we explore the drawbacks of traditional video scene analysis and discuss potential solutions and strategies for video scene analysis to recognize different crimes by using advanced technologies like Artificial Intelligence (AI), Computer Vision (CV), Machine Learning (ML), Deep Learning (DL), Pattern Classification (PC), Recursive Bayesian techniques, and Template Matching Statistical (TMS) techniques.

Biography:

Y.V.K Durga Bhavani has been working as an Associate Professor in the Department of Information Technology at Vijaya Institute of Technology for Women (VITW), Vijayawada, AP, India. She has a total of 16 years of experience in teaching. She is an AICTE QIP Ph.D Full-Time Research Scholar on deputation in Computer Science Engineering at Basaveshwar Engineering College Research Centre, Affiliated to Visveswaraya Technological University, Belagavi, Karnataka, India. She has published numerous research articles in reputed Journals. Her Research interests include Machine Learning, Video Processing, Pattern Classification, Cyber Security, and Deep Learning.