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Virtual Spy (Automating the Role of Third Umpire in the Game of Gully Cricket)

Mr. Vijendra Kumar Sharma and Prof. Manoj Kumar Yadav
Assistant Professor, Department of Computer Science and Engineering
Dronacharya Group of Institutions, Greater Noida, Uttar Pradesh, India

Abstract: *The conclusion of the game might induce any incorrect decision owing to a person's misunderstanding. In book reviews that employed many cameras to display, computer vision and image processing techniques were mentioned. This study focuses on a system that employs a high-quality smartphone camera to assist the umpire in making judgments such as no ball, running, and out. The Decision Review System (DRS) intends to offer run-out and stump-out rulings. Tkinter is used to create DRS's graphical user interface. The Histogram of Gradients (HOG) and Support Vector Machine are used to classify and recognise objects (SVM). Using the OpenCV library, we optimised and applied frame subtraction, contour detection, and minimal enclosing circle methods to detect the cricket ball from the video. To monitor and forecast the motion of the ball from a video source, linear regression and quadratic regression are utilised. The visual depiction is done with VPython..*

Keywords: Virtual Spy

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