George Washington International Law Review
ISSN-1534-9977, E-ISSN-0748-4305

Article Received: 12th May, 2021; Article Revised: 31th May; Article Accepted: 10th June, 2021

VISUAL BASED HUMAN ACTION RECOGNITION USING MACHINE LEARNING ALGORITHMS

Dr. R. Santhoshkumar
Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College,
santhoshkumar.aucse@gmail.com

Dr. B. Rajalingam
Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College,
rajalingam35@gmail.com

Dr. G. Govinda Rajulu
Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College

Dr. R. Vasanthselvakumar
Assistant Professor, Sir Vishveshwaraiah Institute of Science and Technology
Department of Computer Science and Engineering, St. Martin's Engineering College

Dr. G. JawaherlalNehru
Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College

Dr. P. Santosh Kumar Patra
Principal, Department of Computer Science and Engineering, St. Martin's Engineering College

Abstract -- This paper proposes a system which will detect action of a human by extracting the movement cues from the body. This system is helpful to detect suspicious activity in public places. Detection of action will be based on body parts not on facial expression. In this paper, we utilized a technique for object description in view of k-means grouping calculations and speeded up Robust Feature (SURF) strategy for key points identifications. This calculation requires one input parameter like K-means (k, number of items). The experiments are completed utilizing openly accessible activity recognition dataset, and the separated movement feature is demonstrated by Random Forest and Naive Bayes which are utilized to classsify the human activity. Exploratory outcomes demonstrate that Random Forest is proficient in perceiving the human activity with a general recognition exactness of 91.69 %, when contrasted with Naive Bayes.

Keywords: Activity recognition, K-means clustering, Dynamic time wrapping, Random Forest, Naive Bayes object detection