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Advance Intelligent Video Surveillance System Using OpenCV

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Abstract: In today's society, video surveillance for observing a particular area which includes hospitals, establishments, public parks, and buildings has become a need, where in each person desires to keep their belongings safe and relaxed. The growth in the urban population has ended in an increase in crime. For citizens, video surveillance has had a tremendous influence. Closed-circuit television (CCTV) is the most extensively used machine, but it's miles extra expensive and makes use of more strength and a garage. To address this trouble, we developed a complicated wise video surveillance device for places where human presence is abnormal. It isn't important to constantly screen the area with cameras in such situations. This consumes both the electricity and the storage space required for the footage. Open CV, a device gaining knowledge of software library, is used to put in force this gadget. The proposed gadget operates in such a manner that it captures video then processes frame by frame and starts recording whilst it detects human presence. The surveillance device can be activated if the cameras hit upon any movement. The counseled system gathers information and stores it in a neighborhood database. The video that becomes captured and stored can be utilized to identify the intruder and aid in his seizure. It could be useful in places where human presence is irregular, which includes bank vaults and houses.

Keywords: Surveillance; Intruder; Open CV; Face Recognition

REFERENCES

- [1]. A. Renjith and Aishwarya, "Enhanced home security Using IoT and raspberry pi," International Research Journal of Engineering and Technology (IRJET), vol. 4, 2017.
- [2]. W. F. Abaya, J. Basa, M. Sy, A. C. Abad, and E. P. Dadios, "Low-cost smart security camera with night vision capability using raspberry pi and OpenCV," 2014.
- [3]. M. Pervaiz, Y. Y. Ghadi, M. Gochoo, A. Jalal, S. Kamal, and D.-S. Kim, "A smart surveillance system for people counting and tracking using particle flow and modified som," Sustainability, 2021.
- [4]. M. Rashmika, "Motion sensor and face recognition based surveillance system using raspberry pi," International Journal of Advanced Research in Computer Science, vol. 8, no. 5, 2017.
- [5]. A. CobParro, L. Gutierrez, Marron-Romera, Gardel- Vicente, and Bravo-Munoz, "Smart video surveillance system based on edge computing," 2021.
- [6]. T. Shivprasad, B. Shivani, A. P. Singh, and Deepak, "Survey paper on smart surveillance system," International Research Journal of Engineering and Technology (IRJET), vol. 3, 2016.Fig 6: BGR to Gray Conversion

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