World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:12, 2020

Detecting and Disabling Digital Cameras Using D3CIP Algorithm Based on Image Processing

Authors : S. Vignesh, K. S. Rangasamy

Abstract : The paper deals with the device capable of detecting and disabling digital cameras. The system locates the camera and then neutralizes it. Every digital camera has an image sensor known as a CCD, which is retro-reflective and sends light back directly to its original source at the same angle. The device shines infrared LED light, which is invisible to the human eye, at a distance of about 20 feet. It then collects video of these reflections with a camcorder. Then the video of the reflections is transferred to a computer connected to the device, where it is sent through image processing algorithms that pick out infrared light bouncing back. Once the camera is detected, the device would project an invisible infrared laser into the camera's lens, thereby overexposing the photo and rendering it useless. Low levels of infrared laser neutralize digital cameras but are neither a health danger to humans nor a physical damage to cameras. We also discuss the simplified design of the above device that can used in theatres to prevent piracy. The domains being covered here are optics and image processing.

Keywords : CCD, optics, image processing, D3CIP
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020