

## **Resource Links**

### **Title: Real-Time Human Detection for Aerial Captured Video Sequences via Deep Models**

**Link:** <https://www.hindawi.com/journals/cin/2018/1639561/>

**Abstract:** In this paper, we utilize automatic feature learning methods which combine optical flow and three different deep models (i.e., supervised convolutional neural network (S-CNN), pretrained CNN feature extractor, and hierarchical extreme learning machine) for human detection in videos captured using a nonstatic camera on an aerial platform with varying altitudes.

### **Autonomous Rover Navigation Using GPS Based Path Planning**

**Link:** <https://ieeexplore.ieee.org/document/8424312>

**Abstract:** The rover capturing its own GPS signal generates a path between the current location and the destination location on its own. It then finds the deviation in its current course of direction and position. And eventually it uses Proportional Integral Derivative control loop feedback mechanism (PID control algorithm) for compensating the error or deviation and thus following that path and reach destination.

### **Research on UAV Multi-Obstacle Detection Algorithm based on Stereo Vision**

**Link:** <https://ieeexplore.ieee.org/document/8729183>

**Abstract:** According to the multi-obstacle detection algorithm proposed in this paper, the results show that the algorithm can detect at most five obstacles in 15m and has practical application value.

### **Architecture of a Rover and its Navigation System Based on Artificial Vision**

**Link:** <https://ieeexplore.ieee.org/document/8988026>

**Abstract:** Purpose of this work is to present the design of a Rover and its autonomous navigation system based in the StereoLSD SLAM algorithm for reconstruction of 3D environments using solely artificial vision and its implementation in the rover type mobile robot for lunar surface exploration named Dereumbot.

### **Evidence Summary: Hiking/Mountaineering**

**Link:** <https://activesafe.ca/wp-content/uploads/2018/04/Hiking.pdf>

Abstract: Injury rates have been reported as 6.1 injuries/1000 participant days (95%CI: 1.2-18.7) for mountaineering. Another study reports injuries at a rate of 0.56 injuries/1000 hours, and fatality rates at 0.13/1000 hours).