

BLINDBOT: VISIONGUIDE ASSIST USING RASPBERRY PI

ABSTRACT:

A smart cap which reduces the complexity of living of visually impaired people by using the deep learning and its algorithm. For 20% of the world population who were blind, not all of them getting access to the assistive technology. By using smartcap we can provide a necessary assistive technology which can improve the living for visually impaired people.

In this project, using raspberry pi we are going to design smartcap which reduces the complexity living of visually impaired people by using the deep learning. Our approach is to neglect the minimum difficulties faced by every blind individuals. In this project we will be using three modules which are face recognition module, image captioning module and online newspaper module by structuring these modules using python, we will integrate these modules in raspberry pi.

KEYWORDS:

1. Raspberry pi
2. For face recognition (dlibs HOG + linear SVM based model, RCNN)
3. For Image Captioning (BLIP (Vision-Language Model) and ViT)
4. For online newspaper (RSS) and JSON file