**“Python - Based Species classification wireless camera for forest survey and monitoring”.**

We have used a Raspberry Pi with a camera module. The Raspberry Pi gets the video using the camera, then using the Open CV module it cuts the video in frames. Next, using Open CV and other modules it process the image detection of the species in the image and it tries to map it with a category and pre-trained detection model. It then shows the result of the detected species. If the detected species in the image is not available in category list then it gives the output as {none} and save that image with data and timestamp in database folder so that it can later be studied. If the detected species is available in the category list, it gives the output with name and ID of detected species and saves that data in text format with date and time in a text file named survaydb.txt and at the same time saves the image with detected named label the database folder for reference. So, in this way, our smart camera keeps track and creates a database with pictures of all species present in the forest. It can also be helpful in studying animal behaviour and can help us in studying the growth and flow of flora and fauna in the forest.