Poolice - A stool recognition neural network mobile application for colorectal cancer detection

Disclosed herein is Poolice, a mobile application system that determines if there is blood in one's stool (which indicates a possible risk of colorectal cancer) from an image of it. The system comprises a user interface for one to take a photo of his/her stool sample, a trained stool recognition neural network (deep learning algorithm) deployed in the application that makes a prediction on the image, and an output screen which displays the classification results and a message to the user. Disclosed herein is also a method of generating synthetic images using a generative adversarial network and adding the synthetic images to the stool recognition neural network's training set in order to improve classification accuracy.

No suitable figure