

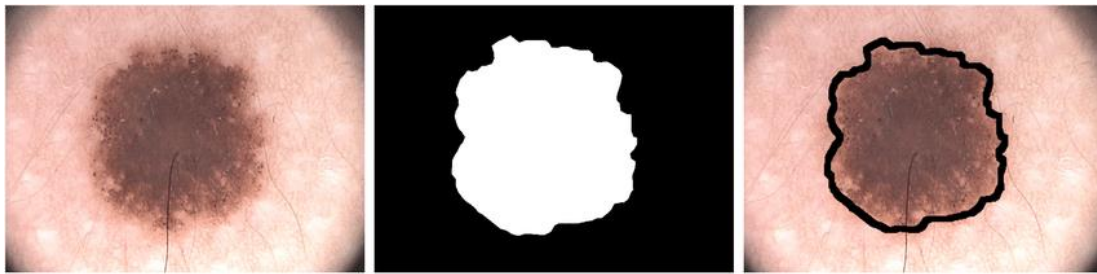
Assignment-2

Digital Image Processing (Fall 2019)

Submission deadline: 19 DEC 2019

Skin Lesion Feature extraction and visualization from Dermoscopic Images

Dermoscopy imaging is used for analysis of skin lesions. There are three major types: Atypical Nevus, Common Nevus and Melanoma.



Dermoscopy imaging is used for analysis of skin lesions. There are three major types: Atypical Nevus, Common Nevus and Melanoma. The basic properties that can be used to differentiate the aforementioned three types are **ABCD**:

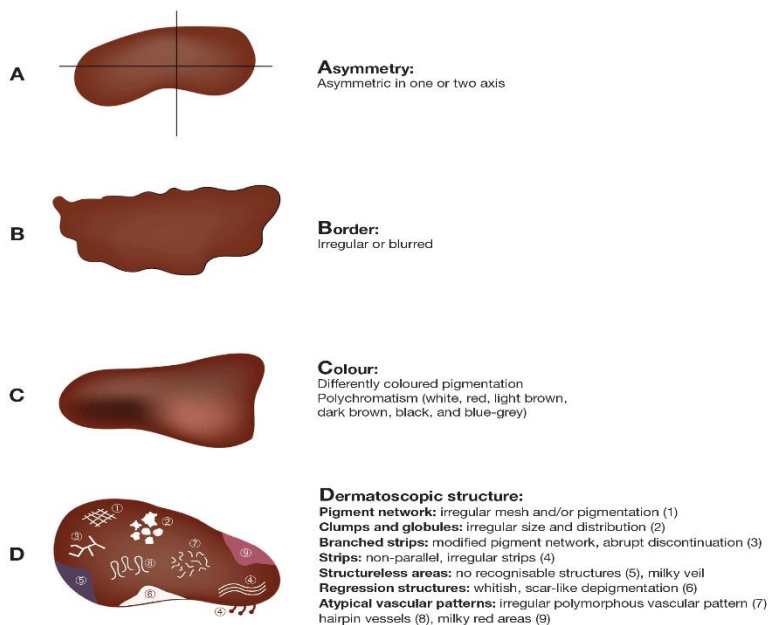
Asymmetry: Asymmetric in one or two

axis.

Border: Irregular or blurred

Color: Differently colored pigmentation

Dermatoscopic structure.



However, these are not the only properties that can be used to differentiate the three major types.

The purpose of this assignment is to make you familiar with the process of feature extraction, selection and visualization.

Use your knowledge of image processing acquired so far in the course and do following things

- Extract best features suitable for this application
- Save features for all images in a file
- Evaluate features and highlight features which are more discriminating in terms of their mean and standard deviation values for all classes
- Visualize these features with help of Box plots and Scatter plots

Do also make a flow diagram for your technique. The evaluation would be done in a relative manner