

The attached dataset contains 6862 images of different types of weather, it can be used to implement weather classification based on the photo. The pictures are divided into 11 classes: dew, fog/smog, frost, glaze, hail, lightning , rain, rainbow, rime, sandstorm and snow.

A. Design the following models:

1- Simple CNN model without residual connections

2- CNN model with residual connection and image augmentation

3- Apply the concept of Transfer Learning using the pretrained model in Keras. Use ResNet101 and EfficientNetB7

B. Compare the performance (Accuracy) of the above trained models