**1. Noise Family**

* Add Gaussian Noise
* Add Rician Noise
* Add Speckle Noise
* Add Poisson Noise

**2. Geometric Transformations Family**

* Spatial Cropping
* Rotate Image
* Axis-Aligned Flips (Horizontal/Vertical)
* Perspective Transformations
* Zoom and Crop
* Elastic Deformations
* Random Occlusions

**3. Intensity Transformations Family**

* Apply Gamma Adjustment
* Brightness Adjustment
* Contrast Adjustment
* Histogram Shifting
* Intensity Warping
* Intensity Clipping

**4. Blurring and Sharpening Family**

* Gaussian Blur
* Motion Blur
* Defocus Blur
* Radial Blur
* Sharpening (Gaussian Sharpening)

**5. Advanced Image Adjustments Family (Split into Two Classes)**

**Part 1:**

* Bias Field Simulation
* Gradient Masking
* Circular Cropping
* Patch Shuffling

**Part 2:**

* Histogram Equalization
* Random Grids
* Inversion
* Edge Detection Emphasis
* Boundary Smoothing