Single Image Haze Removal:

GANs Architecture:

1. It is an approach for generative modelling using deep learning methods.
2. It is an unsupervised way of generating new images .
3. It creates new data similar to one in the dataset used for training the model.
4. Here we use 2 models namely generator and discriminator.
5. Generator tries to create the realistic images and discriminator tries to classify the images is fake or not.

So, in case of Hazed removal the generator will produce dehazed image and pass the output to Discriminator. The discriminator tries to predict if the given images is fake or not.

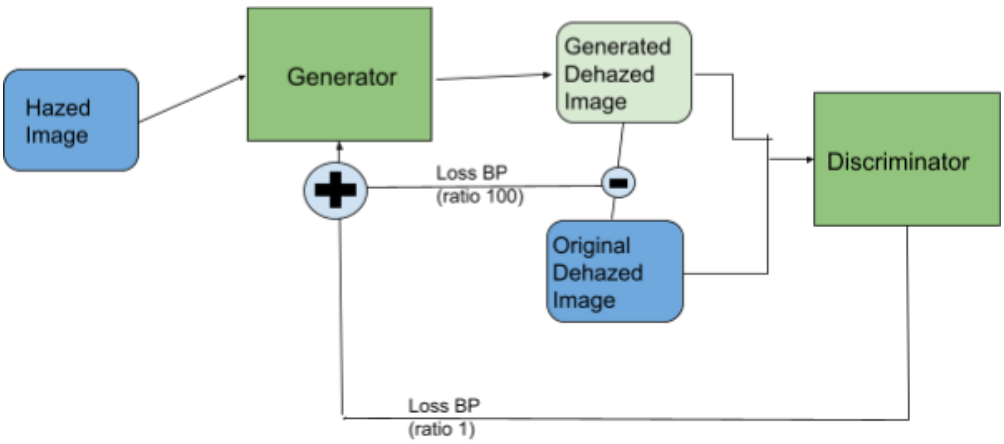
Now, the loss of both generator and discriminator is used to train the respective models.

Over here we are using NYU dataset which consists of video sequences from a variety of indoor scenes in RGB format along with depth information.

Performance Matrix we are planning to use are:

1. **SSIM (Structural Similarity Index Measure)**
   - to measure how similar two images are.
   - Range 0-1 and 2 identical images will have SSIM equal to 1.

2. **Peak to Signal Ratio (identical have value of PSNR value)**



GANs Architecture Diagram.