DL-ASSIGNMENT2

SURYA TEJA ACHANTA(S20160010094)

Question

Implement the basic GAN model for Generating the images in the given dataset. The input noise may be approximated by any suitable distribution.

Parameters:

Generator: Contains series of transposed convolutional layers.

Discriminator: Contains series of Convolutional layers.

learning rate Generator: 0.0002

learning rate Discriminator:0.0002

Adam parameters Generator: beta1 - 0.5,beta2 - 0.999

Adam parameters Discriminator: beta1 – 0.5,beta2 – 0.999

No of epochs: 150

Optimizers used: generator – Adam, Discriminator – Adam

Loss function: Binary cross entropy.

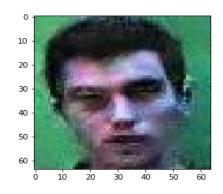
Activation functions used: Tanh, ReLU

Results:

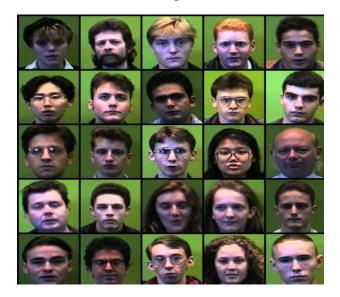
Discriminator Loss : 0.00038(After epoch no 150)

Generator Loss : 0.062(after epoch no 150)

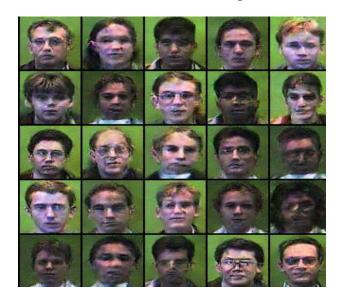
Below is the image generated by the generator, where the input to generator is a 100-dimensional random vector derived from a standard normal distribution.



Real Images



Generated Images



Thank You