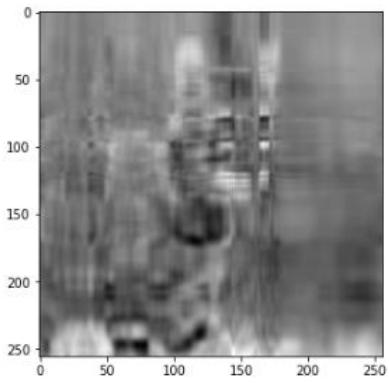
1) **8x8 auto encoder Vs. 8 component:**

- **Noised image:**

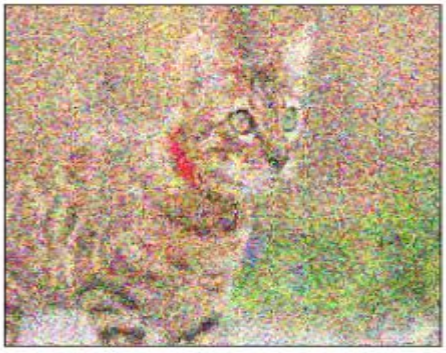
- **Noised encoded vector:**

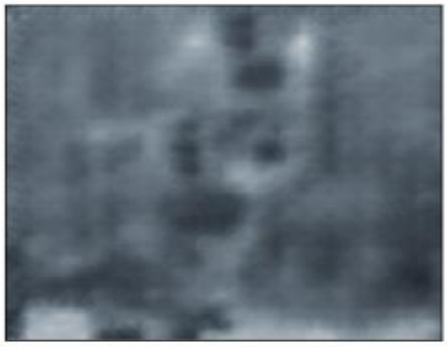
- **8 components:**



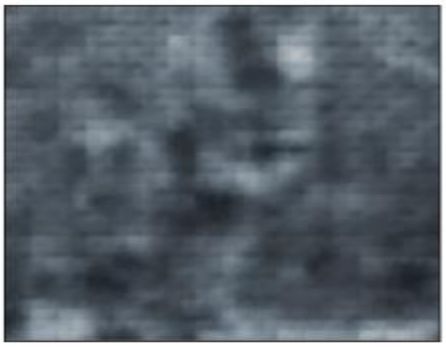
## 2) 16x16 auto encoder Vs. 16 component:

- **Noised image:**

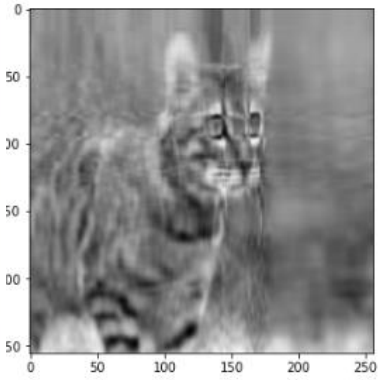




- **Noised encoded vector:**



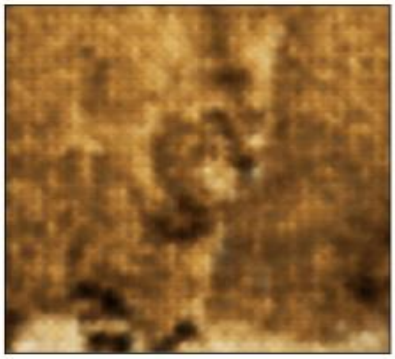
- **16 components:**



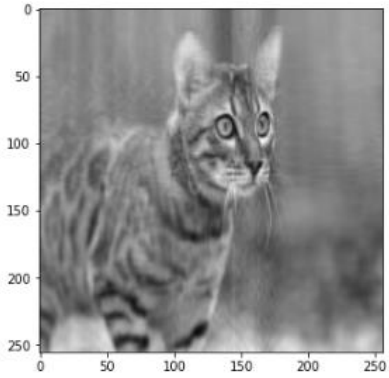
## 3) 32x32 auto encoder Vs. 32 component:

- **Noised image:**

- **Noised encoded vector:**



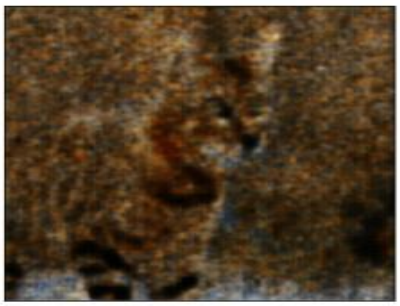
- **32 components:**



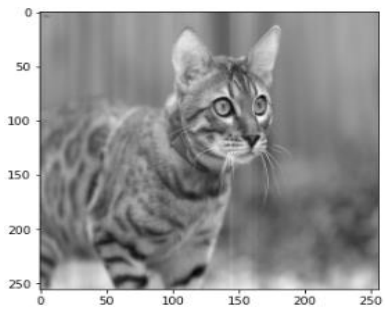
## 4) 64x64 auto encoder Vs. 64 component:

- **Noised image:**

- **Noised encoded vector:**



- **64 components:**




**Conclusion: The PCA is better than the autoencoder because it returns the image clearer than the autoencoder**