Publication and Year	**Technology**	**Summary**
TSAI, R. (1984)	Multiframe image restoration and registration	Applied and evaluated the ScSR method for improvement of image quality of magnified MR images (T1-weighted, T2-weighted, FLAIR, and DWI images) in16-bit DICOM format
Tom and Katsaggelos (1996)	Reconstruction of a high-resolution image by simultaneous registration, restoration, and interpolation of low-resolution images	Solution is provided to the problem of obtaining a high resolution image from several low resolution images that have been subsampled and displaced by different amounts of subpixel shifts
Welsh, T., Ashikhmin, M., and Mueller, K. (2002)	Transferring color to greyscale images	Introduced a general technique for colorizing greyscale images by transferring color between a source, color image and a destination, greyscale image
Levin, A., Lischinski, D., and Weiss, Y. (2004)	Colorization using optimization	Used quadratic cost function and were able to generate high quality colorizations.

Yatziv, L. and Sapiro, G. (2006)	Fast image and video colorization using chrominance blending	High Quality colorization results are obtsined at a fraction of the complexity and computational cost using concepts of luminance-weighted chrominance blending and fast intrinsic distance computations
Qu, Y., Wong, T.-T., and Heng, P.-A. (2006)	Manga colorization	Proposed a novel colorization technique that propagates color over regions exhibiting pattern-continuity as well as intensity-continuity
Tola, E., Lepetit, V., and Fua, P. (2008)	A fast local descriptor for dense matching	Introduced a novel local image descriptor designed for dense wide-baseline matching purposes
Goodfellow, I. J., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., Courville, A., and Bengio, Y. (2014)	Generative Adversarial Networks	Proposed a novel approach of implementing Generative Adversarial Networks using two Neural Networks, viz Generator and Discriminator Networks.

Mirza, M. and Osindero, S. (2014)	Conditional generative adversarial nets	Introduced the conditional version of generative adversarial nets, which can be constructed by simply feeding the data, y, to condition on to both the generator and discriminator
He, K., Zhang, X., Ren, S., and Sun, J. (2015)	Deep residual learning for image recognition	Presented 152 layer using residual learning framework for image recognition and an adaptive edge detection based colorization algorithm and its applications.
Long, J., Shelhamer, E., and Darrell, T. (2015)	Fully convolutional networks for semantic segmentation	Showed that convolutional networks by themselves, trained end-to-end, pixels-to-pixels, improve on the previous best result in semantic segmentation.
Simonyan, K. and Zisserman, A. (2015)	Very deep convolutional networks for large-scale image recognition	Investigated the effect of the convolutional network depth on its accuracy in the large-scale image recognition setting
Cheng, Z., Yang, Q., and Sheng, B. (2016)	Deep Colorization	The paper presented a fully-automatic colorization method using deep neural networks

Dahl, R. (2016)	Automatic Colorization	automatically produce multiple colorized versions of a grayscale image
Radford, A., Metz, L., and Chintala, S. (2016)	Unsupervised representation learning with deep convolutional generative adversarial networks	Introduced a class of CNNs called deep convolutional generative adversarial networks (DCGANs), that have certain architectural constraints, and demonstrate that they are a strong candidate for unsupervised learning
Ledig, C., Theis, L., Huszar, F., Caballero, J., Cunningham, A., Acosta, A., Aitken, A., Tejani, A., Totz, J., Wang, Z., and Shi, W. (2017)	Super Resolution using GAN	Photorealistic single image super-resolution using a generative adversarial network.
Isola, P., Zhu, J.-Y., Zhou, T., and Efros, A. A. (2018)	Image-to-image translation with conditional adversarial networks	Pix2Pix is a Conditional-GAN with images as the conditions for colorization.

Zhu, J.-Y.,Krähenbühl, P., Shechtman, E., and Efros, A. A. (2018)	Generative visual manipulation on the natural image manifold	Defined a class of image editing operations ,after learning natural image manifold from data using generative adverserial neural networks, and constrain their output to lie on that learned manifold at all times