Recommendation List

1. Ballé, Johannes, Valero Laparra, and Eero P. Simoncelli. "End-to-end optimized image compression." *arXiv preprint arXiv:1611.01704* (2016). **(Easy)**
2. Ballé, Johannes, et al. "Variational image compression with a scale hyperprior." *arXiv preprint arXiv:1802.01436* (2018). **(Easy)**
3. Minnen, David, Johannes Ballé, and George D. Toderici. "Joint autoregressive and hierarchical priors for learned image compression." *Advances in Neural Information Processing Systems*. 2018.**(Easy)**
4. Toderici, George, et al. "Full resolution image compression with recurrent neural networks." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2017.**(Easy)**
5. Johnston, Nick, et al. "Improved lossy image compression with priming and spatially adaptive bit rates for recurrent networks." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018. **(Mid)**
6. Toderici, George, et al. "Variable rate image compression with recurrent neural networks." *arXiv preprint arXiv:1511.06085*(2015). **(Easy)**
7. Mentzer, Fabian, et al. "Conditional probability models for deep image compression." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018.**(Mid)**
8. Agustsson, Eirikur, et al. "Generative adversarial networks for extreme learned image compression." *Proceedings of the IEEE International Conference on Computer Vision*. 2019. **(hard)**
9. Agustsson, Eirikur, et al. "Soft-to-hard vector quantization for end-to-end learning compressible representations." *Advances in Neural Information Processing Systems*. 2017.**(hard)**
10. Li, Mu, et al. "Learning convolutional networks for content-weighted image compression." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018.**(Mid)**
11. Baig, Mohammad Haris, Vladlen Koltun, and Lorenzo Torresani. "Learning to inpaint for image compression." *Advances in Neural Information Processing Systems*. 2017.**(Easy)**
12. Rippel, Oren, and Lubomir Bourdev. "Real-time adaptive image compression." *Proceedings of the 34th International Conference on Machine Learning-Volume 70*. JMLR. org, 2017.**(Mid)**
13. Wu, Chao-Yuan, Nayan Singhal, and Philipp Krahenbuhl. "Video compression through image interpolation." *Proceedings of the European Conference on Computer Vision (ECCV)*. 2018.**(Easy)**
14. Lu, Guo, et al. "Dvc: An end-to-end deep video compression framework." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2019.**(Easy)**
15. Rippel, Oren, et al. "Learned video compression." *Proceedings of the IEEE International Conference on Computer Vision*. 2019. **(Easy)**
16. Djelouah, Abdelaziz, et al. "Neural inter-frame compression for video coding." *Proceedings of the IEEE International Conference on Computer Vision*. 2019.**(Easy)**
17. Habibian, Amirhossein, et al. "Video compression with rate-distortion autoencoders." *Proceedings of the IEEE International Conference on Computer Vision*. 2019. (**Mid**)
18. Ilg, Eddy, et al. "Flownet 2.0: Evolution of optical flow estimation with deep networks." *Proceedings of the IEEE conference on computer vision and pattern recognition*. 2017..**(Easy)**
19. Sun, Deqing, et al. "Pwc-net: Cnns for optical flow using pyramid, warping, and cost volume." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018..**(Easy)**
20. Ranjan, Anurag, and Michael J. Black. "Optical flow estimation using a spatial pyramid network." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2017..**(Easy)**

Paper Selection Scope:

If you did not choose any papers listed above, you can choose other papers. However, your paper must meet the following requirements:

1. Your paper has to be **accepted** or **published** by the following conferences: workshop is not included, papers must be listed in the main track
    a. CVPR
    b. ECCV
    c. ICCV
    d. Neurips
    e. ICML
    f. ICLR

   Or journals :
    a. TPMAI
    b. TIP
    c. IJCV
2. Your paper must with following topics:
    a. Compression (image, data, medical image, video etc...)
    b. Video Understanding (Captioning, Tracking, Detection etc….)
    c. Video Processing （Super Resolution，Deblur, De-noise etc ...）
3. Your paper for **ELEC5306** must be different from your paper for **ELEC5304**
4. **Different group can’t choose identical paper.**

You have to decide your paper before **2rd April 2020.**