TPA 12: Detection of tampered videos

Problem Statement: The goal of this project is to create a new video sequence where the motion between frames (or parts of a frame) due to camera shake, jitter has effectively been removed..

Input:

- Video shots containing camera shake and jitter.

Expected Output:

- Same video shot without the unwanted shaky motion from video.

Dataset: To be created synthetically.

References

1. "Full-frame Video Stabilization", Yasuyuki Matsushita et al., CVPR 2005

2. "Content-Preserving Warps for 3D Video Stabilization", Feng Liu, Michael Gleicher, Hailin Jin and Aseem Agarwala, SIGGRAPH 2009

3. "Subspace Video Stabilization", Feng Liu, Michael Gleicher, Jue Wang, Hailin Jin and Aseem Agarwala, ACM Transactions on Graphics, 2011

4. "Spatially and Temporally Optimized Video Stabilization", Yu-Shuen Wang, Feng Liu, Pu-Sheng Hsu, and Tong-Yee Lee, IEEE Transactions on Visualization and Computer Graphics, 2013