

CAP5415 Computer Vision Fall 2013
Homework Assignment # 2
(Due 10/17/13; just before the class)

1. Derive the expression on slide 13, Lecture 9, GlobalMotion by minimizing the sum of squares differences of optical flow constraint equations.
2. Derive the equation on slide 35, Lecture 9 GlobalMotion by minimizing the sum on slide 30 in Man-Picard weighted method.
3. Derive equations on slide 37, Lecture 9 GlobalMotion by finding Taylor series for Pseudo perspective transformation.
4. Derive the expression on slide 40, Lecture 9, GlobalMotion by minimizing the sum of squares differences of optical flow constraint equations on slide 35 using Pseudo perspective and bi-linear transformations.