EEE 515: Machine Vision and Pattern Recognition
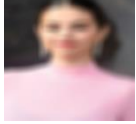
Assignment 1

RESULT 1: Humans can recognize familiar faces in very low-resolution images.

Kernel Size: 20X20.

Test Image	Image after Blur (Kernel Size: 20X20)	Result from Subjects
		S1: Can Recognize S2: Can Recognize
		S1:Can Recognize S2:Can Recognize
		S1:Can Recognize S2:Can Recognize
		S1:Can Recognize S2:Can Recognize
		S1:Can Recognize S2:Can Recognize
		S1:Can Recognize S2:Can Recognize
		S1:Cannot Recognize S2:Cannot Recognize
		S1: Can Recognize S2: Can Recognize
		S1: Can Recognize S2: Can Recognize
		S1: Can Recognize S2: Can Recognize

RESULT 3: High-frequency information by itself is insufficient for good face recognition performance.

Test Image	High Frequency Image	Result from Subjects
		S1:Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize
		S1: Cannot Recognize S2: Cannot Recognize

Summarized Results from test subjects are in accordance with Result 1 and 3.