

## Lecture 7 Project

- 1-1. Load and show L7P-boy.tif and L7P-lena.tif.
  - 1-2. Compute its Fourier transform, spectrum, and phase angle. Display the spectrum.
  - 1-3. Using the amplitude of boy and the phase angle of lena, compute inverse Fourier transform and show the resultant image.
  - 1-4. Using the amplitude of lena and the phase angle of boy, compute inverse Fourier transform and show the resultant image.
  - 1-5. Repeat 1-3 and 1-4 only using the phase angle.
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- 2-1. Load and show L7P-thumb-print.tif.
  - 2-2. Enhance edges by applying a Butterworth highpass filter of order 4 with a cutoff frequency of 50 in the frequency domain. Then show.
  - 2-3. Apply thresholding with 5% of the maximum amplitude. Then show.
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- 3-1. Load and show L7P-car-moire-pattern.tif.
  - 3-2. Compute its Fourier transform. Display the spectrum
  - 3-3. Remove(minimize) the moire pattern using a notch reject filter.