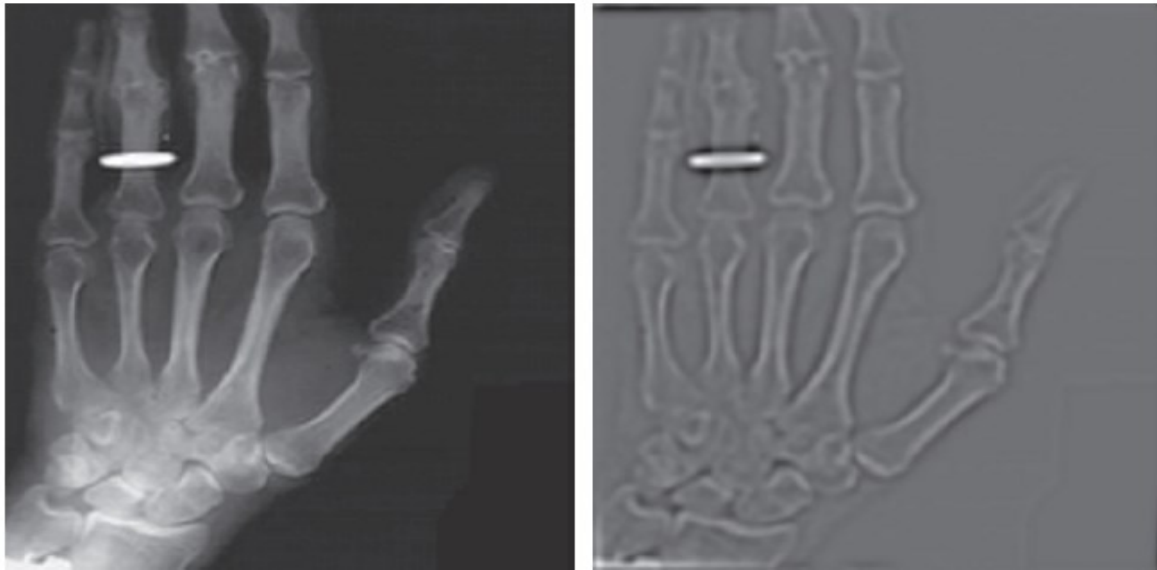**HW3-1:** Consider the hand X-ray images shown below. The image on the right was obtained by lowpass filtering the image on the left with a Gaussian lowpass filter, and then highpass filtering the result with a Gaussian highpass filter. The images are of size 420x 344 pixels and $D0 = 25$ was used for both filter transfer functions.

=> Programming to process and show your results of the highpass filter.

HW3-2: Consider the sequence of images shown below. The image on the top left is a segment of an X-ray image of a commercial printed circuit board. The images are of size 330x 334 pixels, with each pixel being represented by 8 bits of gray. The images following it are, respectively, the results of subjecting the image to 1, 10, and 100 passes of a Gaussian highpass filter with $D0 = 30$.

=> Programming to process and show your results of the highpass filter.