# Continuous Evaluation 1 (CE1)

Submit only one python file containing code (“yourname.py”).

The input image is “skeleton.tif.” The image is a nuclear whole body scan, used to detect diseases such as bone infection and tumors. Our objective is to enhance this image by sharpening it and by bringing out more of the skeletal detail.

Smooth the image using a Gaussian filter. Use appropriate sigma. This gives image I. Now find the Laplacian Image (Image II). Scale the Laplacian image by k and add the result to original image (Which gives Image III). You may choose an appropriate k value for sharpening. In this whole process, take care of overflow or underflow errors which may lead to abnormally high or low intensity levels. Apply a power law transformation to image III. Using pyplot, plot original image and the final output image.

Your code should also print the value of order of Gaussian filter, sigma, k and gamma.

Reference: Section 3.8 (Combining Spatial Enhancement methods) of DIP book by Gonzalez and Woods

Output plot: