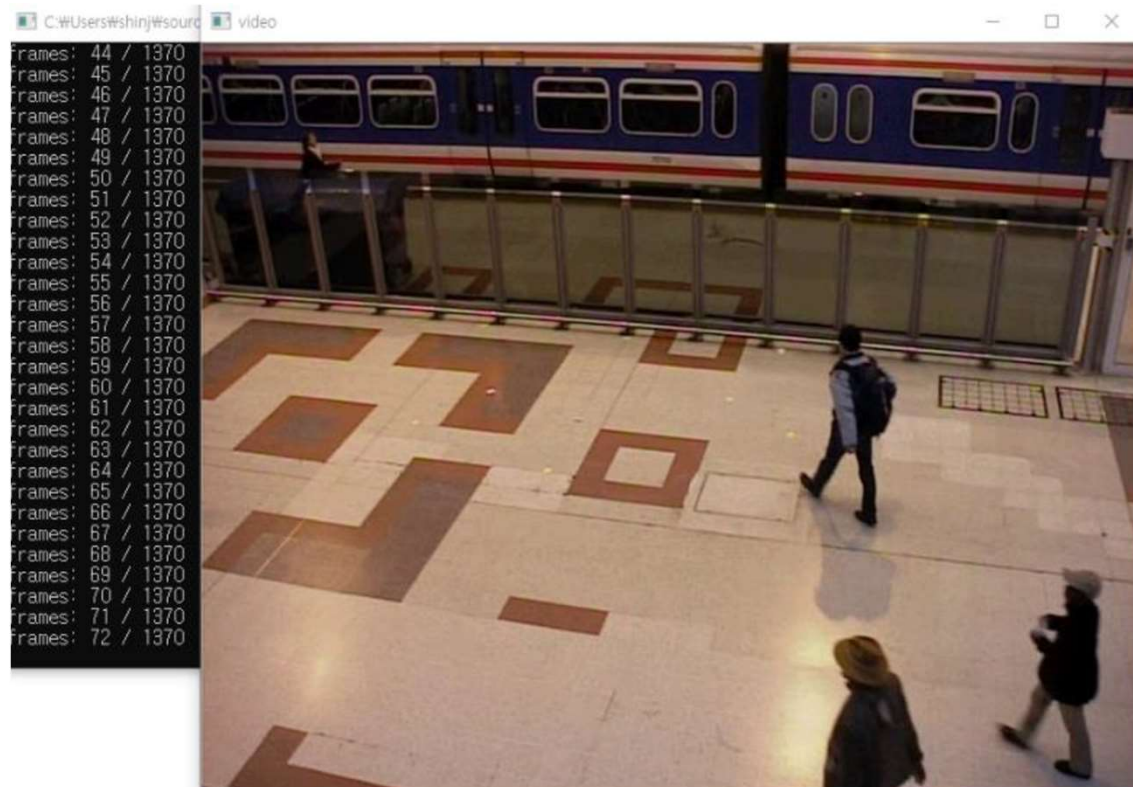# HW1

❖ **Please follow the instructions below.**

- ✓ Read a video "background.mp4"
- ✓ Display video for the first 3 seconds
- ✓ Find out the proper input parameter for waitKey()
- ✓ Print out the number of the current frame and the total number of frames

❖ **Please follow the instructions below.**

  ✓ Read an image "lena.png"

  ✓ Perform the following operations

    – Negative transformation (Result mat: negative_img)

    – Log transformation (Result mat: log_img)

      » Use log(mat a) function to perform log operation

      » To use log function, pixel type of input should be floating point

      » Also use normalize(img, img, 0, 255, NORM_MINMAX)

        • normalize img to (0~255)

    – Gamma transformation with gamma as 0.5 (Result mat gamma_img)

      » Make sure you normalize pixel values from 0 to 1.0