DVS third assignment

Due time: 1/9/1383

- Solve problems number 1, 2, 3, 4, 5 and 6 from chapter 5.
- Develop code and compose a brief report for following problems. Do not omit any valuable points such as your innovation and memory saving politics.

1. **Conversion of sampling lattice**– It is demanded to resample an image sequence sampled by \(v_1\), by new lattice \(v_2\) where sampling matrices are defined as:

\[
v_1 = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}, \quad v_2 = \begin{pmatrix} 1 & 1 & 0 \\ 1 & -1 & 0 \\ 0 & 0 & 2 \end{pmatrix}
\]

Design and apply appropriate filters on 70 burst frames of image sequence claire.avi from frame 11 to 80. Construct the new sequence sampled from sequences 11–18.