

Weekly Report

Week 16: 01/06/2015 - 05/06/2015

Work Developed

This week, the testing of the final BM3D implementation was started, with the extraction of results. The testing is done by adding noise to a set of predefined images and then sending the image to the ZYNQ board. Then, on the board, the C program runs on the ARM processor, which in turn works with the BM3D co-processor implemented on the programmable logic. The graph bellow shows the speedup achieved by the BM3D hardware implementation with respect to execution on a CPU, for increasing image resolutions. 1 - 256x256; 2 - 512x512, 3 - 1280x720, 4 - 1280x1024, 5 - 1920x1080, 6 - 2048x1536, 7 - 2560x1920, 8 - 3264x2448.

Challenges

Next Tasks

Next week, work will be focused on starting the writing of the MSc Thesis.

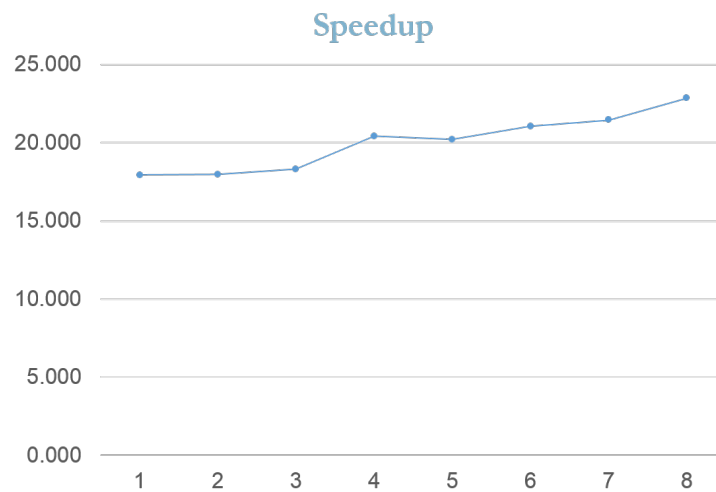


Figure 1: Speedup of hardware implementation for increasing resolutions