

Seminar

Approximate Computing for FPGA-based Image Processing

Digital image processing in professional applications places ever-higher demands, so that the computing power and power consumption of FPGA devices reach their limits. Approximate Computing refers to a set of methods that are based on not performing calculations exactly, but only approximated. As a result, fewer resources are used in the FPGA, more functions can be implemented in the existing FPGA devices, and the energy efficiency of the calculations is improved. However, approximate computing always degrades the quality of the application, so an optimization process must be found that maximizes utility and keeps degradation below a tolerable limit.

Advisors

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