Abstract

For rigorous computer vision applications for image processing on embedded platforms is still a very challenging task. For a customized hardware Field-programmable gate arrays (FPGAs) offer a suitable technology to accelerate image processing. Most recent available image processing frameworks are concentrated on pixel-based modules for simple preprocessing tasks which are mainly defined using MATLAB. This presented paper deals with the aims to implementation of image/digital data into real time hardware using HDLs with the motto of
relatively inexpensive and adaptable technology. Thus, it offers modules and interfaces to perform operations and incorporate software defined operations. This paper will show how the digital image (of any source/formats) can be stored into a memory (RAM/ROM) onto the FPGA and how it can be further processed for larger display onto the TV (i.e. VGA).

References

- Carlos Gonzalez et. al., "Use of FPGA or GPU-based architectures for remotely sensed hyper spectral image processing"; INTEGRATION, the VLSI journal 46(2013)89–103.
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Index Terms

Computer Science  Image Processing
Keywords
Fpga  Simulation  Synthesis  Core Generation  Vga  Hdl  Xilinx