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Synthesis of a parallel data stream processor from data flow process networks

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Propositions (Stellingen)

by Claudiu Zissulescu-Ianculescu, author of

Synthesis of a Parallel Data Stream Processor from Data Flow Process Networks

1. The Look-up table implementation of Read/Write control units is not optimal for image processing algorithms such as Optical Flow algorithm. (This Dissertation, Chapter 3)
2. The upper bound capacity of a Compaan Data Flow Process Network communication channel can be determined using the Bounding Box technique. (This Dissertation, Chapter 5)
3. The First In First Out (FIFO) channel capacity of a self-loop in a Compaan Data Flow Process Network can be precisely determined. (This Dissertation, Chapter 5)
4. The control of a Laura processor can be implemented with only look-up tables, adders, and selectors. (This Dissertation, Chapter 6)
5. The architecture generated by the Laura tool is suited for algorithms that make use of complex (non-trivial) Intellectual Property (IP) cores. (This Dissertation, Chapter 8)
6. In a Process Network, the First In First Out (FIFO) channel capacities dictate the execution schedule of the processes.
7. The Process Network model of computation is suited for the mapping of an application onto heterogeneous platforms.
8. In spite of Moore's Law, communication remains the bottleneck of current architectures.
9. The less wildlife locations a country has, the more national parks it has.
10. If someone in a negotiation replies to your proposal by saying "I will think about it", then in many cases this means your proposal does not fit his planning.