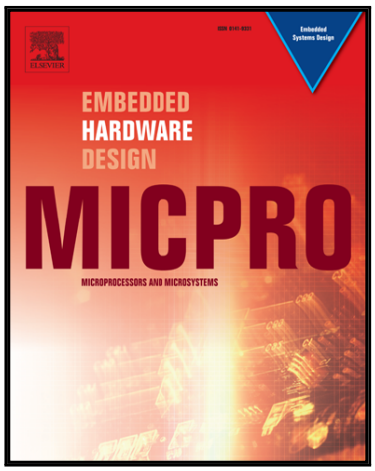

An FPGA-based low-cost VLIW floating-point processor for CNC applications

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Highlights

- Propose a compact floating-point processor design for low-cost FPGAs.
- The floating-point part features a compact 32-bit dual-issue VLIW design.
- Develop a new asynchronous execution mechanism.
- Provide FPGA implementation for the proposed design in a low-cost CNC controller.
- Develop motion planning and interpolation firmware for the processor using parallel computing.