A PIPELINE PROCESSOR EMPLOYING HEXAGONAL SAMPLING FOR SURFACE INSPECTION.

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1   ABSTRACT

The simulation of a pipeline image processor is presented. The pipeline is comprised of a series of common hardware processor elements, each individually programmable to provide a separate function. This architecture results in real-time system implementation at low cost, making it suitable for industrial vision applications.

A comparison is made between processes operating on square and hexagonaly sampled images and an industrial example of surface defect detection is discussed. This work will eventually lead to a VLSI implementation of the processor element.