

Development of a demonstrator of a stack-based FPGA architecture using 3D technology process

Mots clés :

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- **Domaine scientifique principal**: Divers

Résumé du projet de recherche (Langue 1)

Field Programmable Gate Arrays (FPGA) become important actors in the computational device domain that was originally dominated by microprocessors and ASICs. FPGA designs big challenge is to find a good trade-off between flexibility and performances. Three factors combine to determine the characteristics of an FPGA: quality of its architecture, quality of the CAD tools used to map circuits into the FPGA, and its electrical technology design. This research proposal aims at exploring a development methodology of stacked FPGA architecture to improve area, density, power consumption and performance.