Abstract

Reversible logic is one of the emerging fields of research in the areas of low power computation, Optical information processing, Fault tolerant system, bio information, quantum computation and nanotechnology. ALU is the most vital component of any processing system and need to consume as much less energy as possible in the mean while must be resistant to faults. In this paper the design of a fault tolerant function generator is brought out that can generate up to 16 different Boolean Functions. This unit is the logical unit of an ALU.
Design of Fault Tolerant Reversible Multiplexer based Multi-Boolean Function Generator using Parity Preserving Gates


Index Terms

Computer Science

Digital Circuits

Keywords
Design of Fault Tolerant Reversible Multiplexer based Multi-Boolean Function Generator using Parity Preserving Gates

Reversible Logic  Parity Preserving Gates  Multi-Boolean Function Generator

Logic Unit

Nanotechnology