Abstract

As billions of transistors can easily get manufactured on small chips, multiple processing elements are also getting fabricated on these chips. This type of chip manufacturing caught the attention of researchers from the domains like Parallel and Distributed Computing, Computer Aided Chip Manufacturing, Computer Design etc. Many researchers tried to utilize the boosted capacity of multiprocessor chips to implement time consuming, bulky, parallel algorithms. A strong communication network, which is reliable, robust and reusable is very much needed to achieve expected performance. This paper proposes a new Gamma Interconnection Network variant, namely NoCGIN, which acts as an interconnection network for Networks-on-Chip. The paper further gives information about the topology of NoCGIN and a simple routing algorithm for routing packets.

References


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Index Terms

Computer Science

Networks

Keywords

Networks-on-chip, Gamma Interconnection Network, Systems-on-chip, Parallel Computing