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**A Comprehensive Study on Design Consideration of Multi Core Processors**

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**Abstract**

Multi core processors are designed to meet the rapidly growing computing demands with optimal power consumption. It is the most preferred choice in cluster computing because of its greater computational power and cost effectiveness. There are many works proposed on design consideration in multi core systems for optimization of power, delay etc. But many of those works need to be extended for the case of multi core systems employed in cluster computing. Multi core cluster presents many design challenges in terms of execution mode, data locality and interconnect to achieve optimality in terms of multiple parameters like delay, power consumption, fault tolerance etc. This work studies those existing solutions to identify open areas of research.

**Keywords:**

Multi core processor, Data locality, delay, Fault tolerance, Power consumption.

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