* Heterogeneous Multicore Processor: A single computing component comprised of 2 or more non-identical cores.
* Object: A particular instance of a class, an object can be a combination of variables, functions and data structures.
* Die: An integrated circuit produced in large batches on a single wafer of electronics grade silicon.
* Bias Scheduling: influencing the scheduler to select one type of core that best suits a particular application.
* Power Gaiting: A technique used on integrated circuits to reduce power consumption by shutting off currents to parts of the circuit not in use.
* Pollack’s Rule: Microprocessor performance increase due to microarchitecture advances is roughly proportional to to the square root of the increase in complexity.
* Composed Processor: Splits the message up, routes the sub messages to their appropriate destinations and then re-aggregates the responses back into a single message.
* Hot Carrier Injection: phenomena in solid state electronics where an electron “hole” gains enough kinetic energy to overcome the potential barrier to break an interface state.
* Negative Bias Temperature Instability(NBTI): is the key reliability issue in a MOSFET, it is an increase in the threshold voltage and therefore a decrease in drain current and trans conductance of the MOSFET.
* Cartesian Product: The product of two sets of ordered pairs.
* Instantiation: Creation of a real instance or particular realization of an abstraction or template such as a class of objects or computer process.
* Feature Vector: is an n-dimensional vector of numeric features that represents some object.
* Thread: is an independent path of execution within a program.
* Buffer: a region of physical memory storage used to temporarily store data while it is being moved from one location to another or between processes.
* Crossbar: A collection of switches arranged in a matrix also known as a switched-medium network.
* Arbiter: Electronic device that allocates access to shared resources.
* Flit(Flow control digITs): large network packets are into smaller pieces called flits.
* Network Packet: formatted unit of data carried by a packet-switched network.
* Virtual Channel: is a means of transporting data over a packet switched computer network such that appears as though there is a dedicated physical layer link between the source and destination end systems of this data.
* Cache: a portion of memory made of high-speed static RAM(SRAM) used to quickly recall data or instructions that must be used repeatedly.
* Virtual Memory: memory that appears to be stored in main storage although most of it is supported by data in secondary storage.
* Page Coloring: a process of trying to allocate free pages that are near each other from the CPU cache’s point of view, in order to maximize the total number of pages cached by the processor.
* DRAM: A memory chip that depends n an applied voltage to keep stored data; stores each bit of data in a capacitor on an integrated chip.
* Time-Division Multiplex Access: A technique for transmitting two or more signals over the same medium/channel, each signal is sent as a series of pulses or “packets” which are interweaved with those of the other signal and transmitted as a continuous stream.