

1.1 Organization and Architecture Computer architecture refers to those attributes of a system visible to a programmer or, put another way, those attributes that have a direct impact on the logical execution of a program. Function: The operation of each individual component as part of the structure. The ISA defines instruction formats, instruction opcodes, registers, instruction and data memory; the effect of executed instructions on the registers and memory; and an algorithm for controlling instruction execution. Examples of architectural attributes include the instruction set, the number of bits used to represent various data types (e.g., numbers, characters), I/O mechanisms, and techniques for addressing memory. Data processing 2. Data movement. Data storage 3. 4. Control