**ISA Instruction Set Architecture**

- Memory Organization
- Registers
- Instruction Set
  1. Opcodes
  2. Data Types
  3. Addressing Modes

**LC-3 Memory Organization**

64K words
Addressability = 16 bits
Address space = $2^{16}$

**LC-3 Registers**

8 16-bit General Purpose
R0, R1, .., R7

**LC-3 Instruction Set**

16 bit Instructions
15 Operations
2’s Complement Integer
Immediate / Literal
Register
Memory Reference
  PC-Relative
  Base+Offset
  Indirect