

**Computer Architecture and Organization Laboratory**  
Department of Computer Science and Technology, IEST

**Experiment No: 5** (Implementation of data movement instructions)

*Objective:* To realize data movement instructions in a CPU having four 2-bit registers.

Utilize the following components:

1. 2-bit registers.
2. 4 to 1 multiplexers
3. 1 of 4 decoder

The design

There are four 2-bit registers A, B, C and D. Realize implementation of data movement instructions

*MOV dest reg addr, source reg addr*

as shown in Figure 1, where *dest* and *source* registers can be chosen from the set of registers {A, B, C, D}. Set a register address manually.

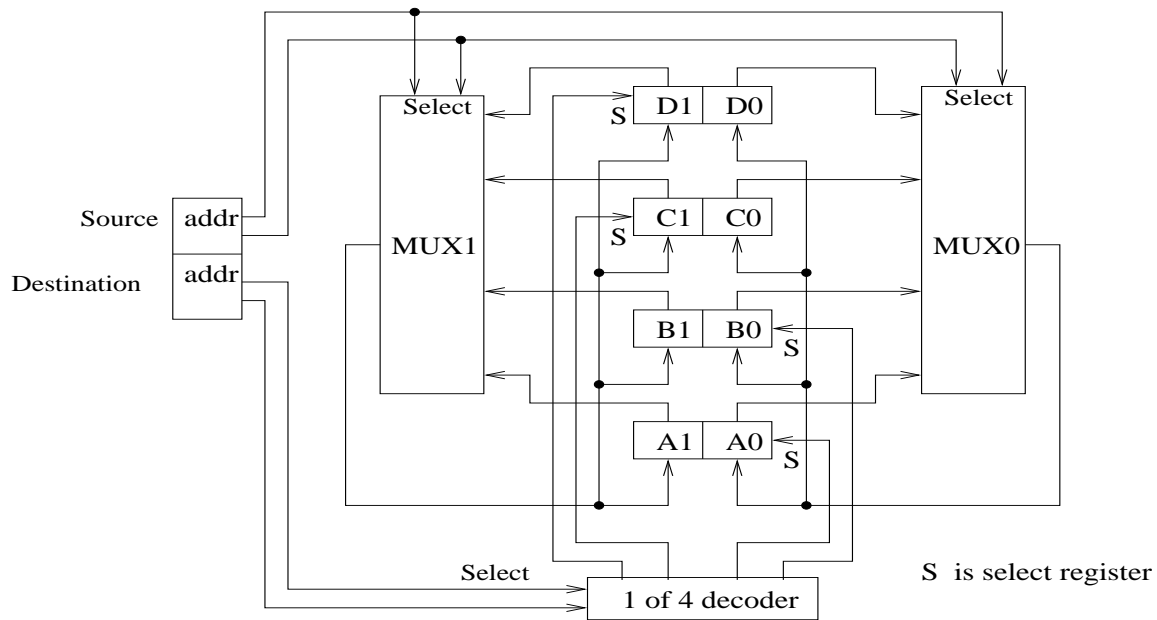


Fig. 1. Circuit diagram