

➤ *Xori Instruction*

- **Description:** Xori immediate instruction format is:

✓ xori rt, rs, immediate

001110 (14)	xori rt, rs, imm	xor immediate
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The working principle of this instruction is the following, an Xor operation is done between the rs register and the immediate and the result is stored into rt. Generally, as we know, there will be no access or need for the data memory.

❖ Datapath:

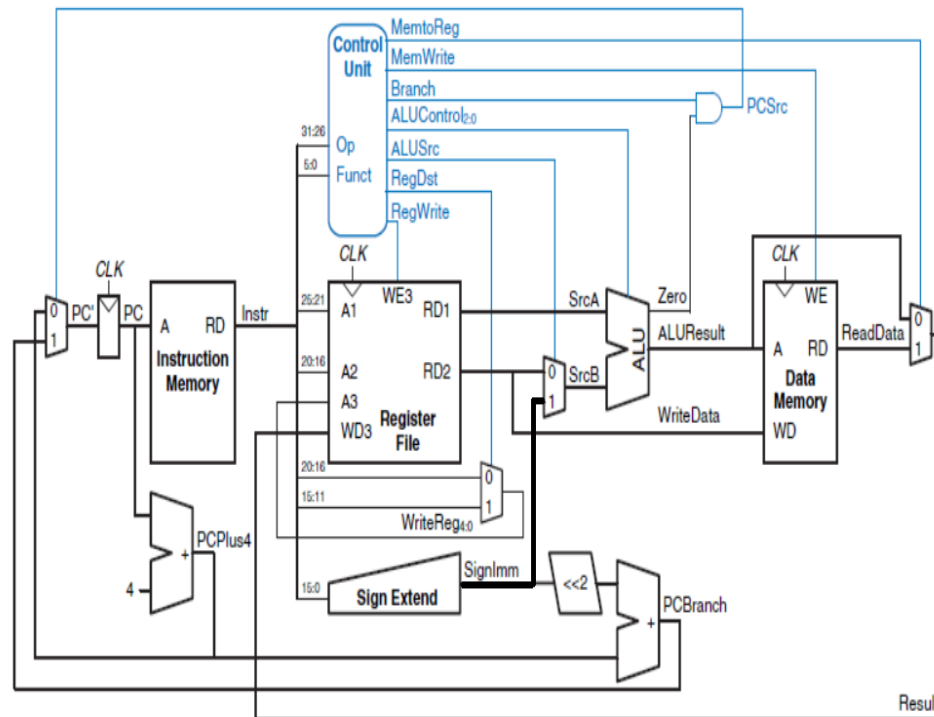


Figure 7.11 Complete single-cycle MIPS processor

There will be no changes to the datapath, as the instruction will be fetched to the Instruction Memory, decoded in the Register File and an Alu operation will be done to XOR both the register and the immediate. The result is sent back to the register file

❖ **Control Unit:**

MemToReg	MemWrite	Branch	AluControl	AluSrc	RegDst	RegWrite
0	0	0	0100	1	0	1