

**Faculty of Engineering and Technology**

**Department of Electrical and Computer Engineering**

**ENCS 2110**

**EXP 8 Post-Lab: Introduction to QUARTUSII Software**

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**Section:** 10

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* **Modules in the Design:**

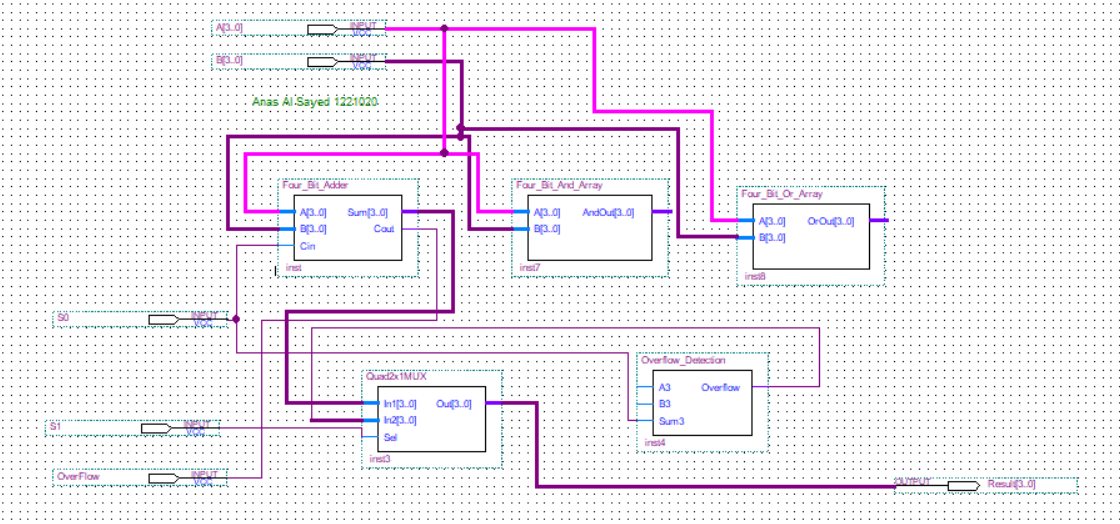
**4-bit Adder** → Adds two 4-bit numbers and outputs sum + carry.

**4-bit AND Array** → Performs bitwise AND on two 4-bit numbers.

**4-bit OR Array** → Performs bitwise OR on two 4-bit numbers.

**Quad 2-to-1 Multiplexer** → Selects between different operations based on control signals.

**Overflow Detection** → Detects overflow in addition.

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