**Laboratory Work 4 Report**

**ISA & Datapath Design for Multi-Cycle CPU**

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The report consists of four main parts.

The first part is answers of the preliminary work part as hard-copy. Hardcopy contains ISA configurations and the design.

The second part is verification results of the changed modules in wvf platform of Quartus.

The third part is the simulation result of the experimental part. Testbench is applied on the Modelsim.

The last part contains the codes of the Datapath design and its testbench.

1. **Preliminary Work Part(Hard-copy)**