

# **Northeastern University**

Department of Electrical and Computer  
Engineering

**EECE2323: Digital Systems Design Lab**

Lecturer: **Dr. Emad Aboelela**

TAs:

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**Lab # 6 - 8: Adding Instruction Decoding to the  
Datapath, Adding Instruction Memory and  
Program Counter to Your Computer, Adding  
Branch Logic to the Datapath to Complete Your  
Computer**

Group # 14:

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Lab Location: 9 Hayden Hall, Northeastern University,  
Boston, MA 02115

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# 1 Introduction

## 2 Design Approach

## **3 Results and Analysis**

### **3.1 Design Simulation**

### **3.2 Hardware Testing**

## 4 Conclusions

# Appendices