

# Lecture #3: DFA Design and Verification — Part One

## Lecture Presentation

### Problem To Be Solved

Let  $\Sigma = \{a, b\}$  and let  $L \subseteq \Sigma^*$  be the following language:

$$L = \{w \in \Sigma^* \mid w \text{ ends with } abb\}.$$

### A First Attempt

What Must the DFA Remember?

Representation Using Subsets of  $\Sigma^*$

**Initial Sanity Checks**

**Identifying Transitions**

## **Getting Ready to Continue**

**What Went Wrong — Which Tradition was Not Well Defined? Why?**