COE 203: Digital Logic Design Lab
Project: Term 082
Scrolling Text System

Description:

Part A:
You are required to build a circuit which displays a scrolling text message using the seven-segments displays. Each character in the message enters from the right and scrolls (shifts) from right to left at a speed of 1Hz. When the message scrolls completely, it re-appears again after 3 spaces. In this project, the message to be displayed is "***COE203 LAb ProJECt***".

Part B:
When you complete part A, extend your circuit as follows:

- Scroll Speed: Add an input (*speed*) which allows to scroll the message at a speed of either 1Hz or 2Hz.
- Scroll Direction: Add an input (*direction*) which allows to scroll the message in either direction; i.e. right ← left or left → right.

Requirements:

You are required to design and implement the above system using a modular design approach. You need to identify the main modules and specify their interfaces. Also, you need to decide how to implement each module*. To complete the project on time, it is important to prepare a good design and divide the work properly among the team members (maximum 3). Upon completion, you need to demonstrate your project and submit a full report describing all aspects of your design from modules to the complete design.

** The top-level module is to be implemented as a schematic one.*

Evaluation:

Criteria	Points
Circuit part A (50) part B (20)	**/70**
Report design (10) overall (15)	**/25**
Teamwork	**/5**
Total	**/100**