Friday	**Assignment-4**	Due on:
April 9, 2021	**EE 309: MicroProcessors**	April 16, 2021
	Spring Semester 2021	Before 23:50

Q–1 We have developed software for scanning a keyboard using FSMs earlier with an 8051. We now want to do it using a MIPS processor. In this case, we want to write the operation of FSM as a callable function, which will be called at intervals of 50 ms. (Timer operation and interrupt handling is not to be implemented here).
Assume that there is an external chip, which responds to a memory address 0xE0A00000, with the same functionality as 8051 port 0. (The external chip connects to MIPS like a memory and on the output side, has 8 open collector outputs like 8051 port0, connected the same way to the keyboard with external pullups). Thus, writes and reads to/from Port0 of 8051 are equivalent to unsigned byte store and unsigned byte load to/from the memory address 0xE0A0000.

Write the equivalent keyscan FSM function with the same state diagram, using MIPS assembly language.

Your code should not be a literal translation of the 8051, but should make full use of resources and conventions used for MIPS.

Your submission should have an asm file with code and a pdf file for text answers.

Assignment Ends