

# Computer Organization

## Spring 2024

### Homework #3

In the simulator, write a MIPS assembly program that calculates the GCD (greatest common divisor) of two positive integers entered from the console (one number in one line). Verify that the program is correct by simulation. You can use any algorithm in your code but we give an example in the following for your reference. The program should employ recursive procedure call in your code. The modulo operator (%) can be implemented using a function. Print out the result on the console. Describe your algorithm in the beginning of the text file as comments.

```
int gcd(int n1, int n2) {  
    if (n2 != 0)  
        return gcd(n2, n1 % n2);  
    else  
        return n1;  
}
```

Submit the text file with programs to e-learning by the due day.

Notes : Do your homework on your own. No copying is allowed.