

**EE 5379 Network Protocols**  
**Programming Assignment #1: Computation Application**  
**Due Date: March 4, 2020 (before Midnight)**

**Objective:**

- 1) To develop a network application that performs computation.

**Instructions:**

- 1) Develop client and server applications using the C programming language that implement the following protocol.
- 2) The client sends a computation request to the server which contains 10 double-precision floating point (real) numbers along with an integer that specifies the operation to be performed (OP\_SUM=0, OP\_MEAN=1, OP\_MIN=2, OP\_MAX=3). The following data structure should be used:

```
#define OP_SUM 0
#define OP_MEAN 1
#define OP_MIN 2
#define OP_MAX 3
```

```
typedef struct
{
    int operation;
    double numbers[5];
}
```

- 3) The server performs the requested computation and returns the double-precision floating point (real) number to the client.
- 4) Submit, via Blackboard, the deliverables described below. Use all lower case characters for your file names.

**Deliverables:**

- 1) Submit clientApp.c and serverApp.c **with good comments** in a compressed tar file: firstinitiallastname\_lab1.tgz.

**Scoring:**

Operation/Successful Demonstration	50%
Adherence to Specifications	40%
Quality of Comments	10%
Lateness	-10% per day (including weekends and holidays)