1. ECE429- Computer Communications Laboratory

2. Credits: 2 points
Time and room: Tuesday, 8:30 am- 11:25 am, Room FHM101-C

3. Instructor:
Roberto Rojas-Cessa
Office: FMH 220
Email: rojas@ njit.edu

4. Textbook:
No textbook. Laboratory notes (available in the laboratory).

5. Prerequisites:
Courses on networking protocols

6. Goals:
CLO: Students will have hand-on skills on networking design, TCP/IP protocols and troubleshooting experiences in Linux OS, network design, and administer a network.

ABET: In addition, students will learn and develop:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
(6) an ability to design and conduct experiments, as well as to analyze and interpret data

7. Laboratory Experiment will be assigned in class.
Three students will form each team.

Reports
A report of the experiment must be submitted in the session following the completion of the experiment. The format of the report is
-Presentation page (Experiment number and title, Names of team member, course number and date when experiment was performed)

Office Hours:
T: 3:00pm-4:00pm
F: 11:00am-12:00pm

Grading Policy:
Lab reports: 70%
Attendance: 30%

**Only successfully completed experiments will be considered (students must demo their experiments to Instructor). Reports will be reviewed and graded. The average grade of the reports will be used to set the final grade. Class attendance is required.

Experiment Outline

Chapter 1. Introductions to the computing equipment and Linux (week 1)
Chapter 2. Tools for examination of computer communication (weeks 2)
Chapter 3. Data-Link Layer protocols (weeks 2-3)
Chapter 4. Network Layer protocols (weeks 4 to 7)
Chapter 5. Dynamic routing with Cisco routers (week 8-9)
Chapter 6. Transport Layer Protocols (weeks10-11)
Chapter 7. Socket programming (weeks 12-13)
Extra. Make up week (week 14)