

EE525: EE Senior Design Project (Spring 2003)

Objective:

To design and implement Ethernet Passive Optical Network EPON MAC protocol

Prerequisites:

- Familiarity with OPNET (required)
- C/C++ programming skills (required)
- LAN course (EE460 or familiarity with Layer2 protocols) (required)
- Communication courses (recommended)
- Familiarity with UNIX (recommended)

Lecture Component Covers :

- Advanced network simulating concepts and tutorials
- Advanced Linux programming tutorials

Course Assignment Description:

- Simulate the student proposed EPON MAC protocol using OPNET (4 weeks)
- Develop the student proposed protocol using Linux (10 weeks)
- Testing the protocol under various traffic loads and writing report (2 weeks)

Course Organization:

- Students are divided into 3 groups (each with 4 members)
- Each student in the group is responsible for various aspect of the project.
 - Simulation: 1 student
 - Linux Development: 2 students
 - Testing and Final Report: 1 student
- Tutorials are presented during class meetings
- Students are expected to meet and develop their protocol outside class hours