

Course Intro

Fall 2010
Dr. Michele Weigle

<http://www.cs.odu.edu/~mweigle/CS795-F10/>

Outline

- Course Overview
- Important Info
- Expectations
- Grading
- Class Policies
- Introductions

Course Overview

- Topics
 - overview of vehicular networks
 - government initiatives
 - important applications
 - network protocols
 - data dissemination and aggregation
 - security

Course Overview

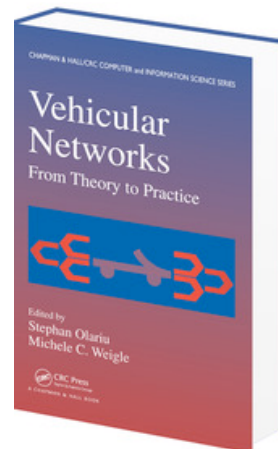
- Student presentations
 - 2 research paper presentations
 - groups of 2
 - I will assign groups and papers
 - final project presentation
 - groups of 3

Important Info

- Course website
 - <http://www.cs.odu.edu/~mweigle/CS795-F10/>
 - announcements, syllabus, schedule, papers, useful links
 - check frequently!
- Blackboard course page
 - used for posting grades, submitting assignments
- Email list
 - <http://list.odu.edu/mailman/listinfo/cs795-mcw>

Textbook

- *Vehicular Networks: From Theory to Practice*
 - focus on Chapters 3, 4, 6, 9, 10, 12
- <http://www.cs.odu.edu/~mweigle/Main/VehicularNetworks-Book>
- Available at ODU bookstore or amazon.com



Expectations

- Prerequisites:
 - basic networking course (CS 555)
 - some wireless (like CS 752/852) and security (like CS 772/872)
 - familiarity with Unix programming environment and C++
- Be a full participant in the class
 - some lectures will be given, but I expect them to be interactive (ask questions, offer opinions)
 - keep up with assigned reading (*not optional!*)
- Read, present, and lead discussions on research papers

Expectations

- Read research papers
 - we will read a *lot* of papers (20 papers presented, plus papers for lecture background)
- Write and talk about research papers
- Implement protocols/systems in a simulator
- Perform original research

Research Project

- Groups of 3
 - start thinking about group members now
- Topic must be chosen by Sep 30
 - topics will be suggested, but you can propose your own
- Weekly meetings with me to discuss progress
- Project milestones must be met

Grading

- | | |
|---------------------------------|-----|
| • Discussion Participation/Quiz | 10% |
| • Programming Assignments | 10% |
| • Written Assignments | 15% |
| • Paper Presentations | 15% |
| • Project and Paper | 25% |
| • Exams | 25% |

Letter grades assigned A, B, C on a 10-point scale

Class Policies

- Academic Integrity
- Attendance
- Late Policy
- Other Policies
- Seeking Help

Academic Integrity

- Any evidence of cheating or plagiarism will result in a 0 grade for the assignment/exam, and the incident will be submitted to the department for further review
 - guilty finding could result in notation on your transcript

What is Cheating/Plagiarism?

- Turning in another student's work
- Copying a paper from a source text without proper acknowledgment
- Copying material from a source text, supplying proper documentation, but leaving out quotation marks
- Paraphrasing material from a source text without appropriate documentation

When in doubt, ask!

Example

Original (Wikipedia)

- A Vehicular Ad-Hoc Network, or VANET, is a form of Mobile ad-hoc network, to provide communications among nearby vehicles and between vehicles and nearby fixed equipment, usually described as roadside equipment.
- The main goal of VANET is providing safety and comfort for passengers. To this end a special electronic device will be placed inside each vehicle which will provide Ad-Hoc Network connectivity for the passengers. This network tends to operate without any infrastructure or legacy client and server communication. Each vehicle equipped with VANET device will be a node in the Ad-Hoc network and can receive and relay others messages through the wireless network. Collision warning, road sign alarms and in-place traffic view will give the driver essential tools to decide the best path along the way.

Plagiarism

- A Vehicular Ad-Hoc Network is a form of a Mobile Ad-Hoc Network that provides communication among nearby vehicles. It also provides communication between vehicles and fixed equipment, usually described as roadside equipment.
- The goal of VANET is to provide safety and comfort for passengers. A special electronic device will be placed inside each vehicle which will provide Ad-Hoc Network connectivity for the passengers. This network operates without any infrastructure. Each vehicle equipped with a VANET device will be a node in the Ad-Hoc network. Each vehicle can receive and relay others messages through the wireless network. Collision warning, road sign alarms and in-place traffic view will give the driver tools to decide the best path.

Attendance

- Arrive on time to class
 - your grade will be affected if you are consistently tardy
- If you are absent, check the course webpage for missed notes and/or assignments

Policies

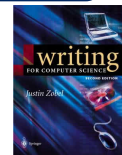
- ***No late assignments accepted***
- Turn off cell phones before coming to class
- Make-up work is only given with a written medical or university excuse

Seeking Help

- Course website is your first reference
- Come to office hours
 - if you can't make office hours, send me an email to setup another time
- Send email
 - but only for short, clarifying questions

Seeking Writing Help

- Buy two inexpensive books
 - *Writing for Computer Science* by Justin Zobel
 - *The Elements of Style* by Strunk and White
- Look at online information from ODU's Writing Tutorial Services
 - <http://al.odu.edu/wts/students/>
- Contact ODU's Graduate Writing Assistance Program
 - <http://al.odu.edu/gwap>



Outline

- Course Overview
- Important Info
- Expectations
- Grading
- Class Policies
- **Introductions**