

Feedback, Revision & Sample Exam Question

G54ACC – IP and Up

Lecture 11

SET/SEM Feedback Feedback

- 20 SEM forms, 24 SET forms – thanks!
- Main points concerned:
 - Lab exercises and assessment process
 - Workload
 - Theory vs. Practice
 - Content
 - L8 – Programming?
 - Assumed prior knowledge/Overlaps
 - Reading, delivery

Exercises & Assessment

- Apologies about Exercise 1
 - Will remove or fix for next year
- Intend to restructure exercises for next year
 - More “bite sized chunks”
 - Possibly making some assessed, as “ticks”
- Assessment is still going to be largely exams
 - Although will have more past questions
 - Have prepared a sample for you today

Workload

- Split wasn't intended to be theory vs. practice
 - Both halves have practical and theoretical sides!
- It *is* a broad course covering *advanced* topics
 - Tried to ensure that the wide range of material was structured to help you make sense of it
- Intended to extend and build upon G52CCN

Prerequisites & Overlaps

- G52CCN is a prerequisite course
 - Who has done it?
 - Who feels they haven't previously covered equivalent material?
- Did any particular lectures overlap significantly with other modules?
 - E.g., have had at least one comment re L8-Programming

Reading & Delivery

- Ok, ok, I'll try to speak more loudly and slowly
 - Always open to questions in person or by email
- Several books were not available at the start
 - ...but the library has now acquired copies
- Will consider pointing to related (book) reading a bit more directly next year
 - There *are* already links in the slides to papers and other materials
- WebCT should point to all related materials at:
 - <http://www.cs.nott.ac.uk/~rmm/teaching/2010-g54acc/>
 - <http://www.cs.nott.ac.uk/~rmm/teaching/>

Sample question

This is a question about IP on Ethernet.

- a) What is ARP and what function does it perform?
[2 marks]
- b) What is an IP subnet and what function does it serve? [2 marks]
- c) Illustrate the operation of ARP on a simple wired Ethernet with 3 hosts on the same IP subnet connected via a hub. [5 marks]
- d) Replace the hub with a device operating as an IP router and DHCP server. One of the existing connected hosts is a web server. Describe the sequence of operations and protocol interactions that takes place between a new host being connected to the device and it successfully retrieving a web page from the web server. Assume zero packet loss.
[12 marks]
- e) Imagine that the network in (d) is now a wireless Ethernet. Describe how your answer to (d) would change based on whether the two communicating devices are on the same IP subnet or are on different IP subnets. [4 marks]

Requested Revision Topics

- TCP congestion control
- Web RPC
- RESTful web services
- ...contact me if you have any more