Computer Networking (CN)
2017/18, Semester 2

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Overview

• This is a follow-on course to introductory Computer Communications & Networks (COMN) course for 3rd year UG students
  – In fact, COMN is a prerequisite for this course

• Focus largely on wireless and mobile networks

• Basic programming experience assumed
  – Will be handy for one of the coursework assignments

• Taking this course will be beneficial for UG4/UG5/MSc students who are (or will be) doing a project in the networks area
Administrative Details

- Course descriptor:  
  - [http://www.drps.ed.ac.uk/17-18/dpt/cxinfr11049.htm](http://www.drps.ed.ac.uk/17-18/dpt/cxinfr11049.htm)

- Course webpage:  
  - [http://www.inf.ed.ac.uk/teaching/courses/cn/](http://www.inf.ed.ac.uk/teaching/courses/cn/)
  - Schedule w/ lecture slides, assignments, TA contact info, past exam papers, etc.

- Lecturer:  
  - Mahesh Marina ([mahesh@ed.ac.uk](mailto:mahesh@ed.ac.uk)), Informatics Forum room 1.20

- Lectures: Semester 2  
  - Times: Tuesdays 1410-1600hrs
  - Venue: G.06, High School Yards
Administrative Details (contd.)

• Teaching Assistant:
  – Mr Mohamed Kassem (M.M.M.Kassem@sms.ed.ac.uk), Informatics Forum room 1.17

• Out-of-class communication:
  – Course related announcements and Q&A on mailing list: cn-students@inf.ed.ac.uk
  – Meetings with Lecturer and TAs, by appointment
Activities & Assessment

• Usual two lectures per week, but back-to-back this year
• No formal tutorials

• **Coursework (25% of course mark): two assignments**
  - Assignment 1: 15% of course mark / 60% of coursework mark
    - Simulation based performance study of network protocols
    - Period: Tue, 30th Jan – Fri, 2nd Mar
  - Assignment 2: 10% of course mark / 40% of coursework mark
    - Survey a cutting edge topic in networking based on a set of recent research papers
    - Period: Fri, 2nd Mar – Fri, 23rd Mar

• **Exam (75% of course mark)**
  - Past exam papers: [http://www.inf.ed.ac.uk/teaching/exam_papers/](http://www.inf.ed.ac.uk/teaching/exam_papers/)
  - Examinable material will be primarily based on lecture slides
Syllabus

• Aim to cover the following topics:
  – Overview of wireless networks and communications
  – Wi-Fi or Wireless Local Area Networks (LANs) based on IEEE 802.11 standard
  – 2G/3G/4G Mobile Networks
  – Short-range wireless technologies (Bluetooth, RFID)
  – Mobility Management
  – Power Management
  – TCP over Wireless
Text Books and References


• Additional readings (in the form of other reference texts and research papers) will be indicated as needed.