IERG 6154: Network Information Theory

Prof. Chandra Nair

Office: SHB 811
e-mail: chandra@ie.cuhk.edu.hk
web: chandra.ie.cuhk.edu.hk

Department of Information Engineering
The Chinese University of Hong Kong

Spring 2019
Lectures

The course will be given by Prof. Chandra NAIR.

Venue details

- **Mondays** from 9:30 am to 11:15 pm, in SHB 833
- **Tuesdays** from 9:30 am to 11:15 pm, in SHB 833

My office hours for this class (SHB 811)

- **Tuesday** from 2:00 pm to 3:00 pm
Course material

- Class Notes
- Reference: Network Information Theory
  - By Abbas El Gamal and Young-Han Kim
  - Cambridge University Press
  - Highly recommended
Course Outline

1. Introduction
2. Review of basic information theory
3. Point-to-Point Information Theory
4. Multiple Access channels
5. Degraded broadcast channels
6. Interference channel
7. Channels with State
8. General broadcast channel
9. Gaussian vector channels
10. Distributed lossless source coding
Online resources

Direct your browser to

http://elearn.cuhk.edu.hk/

and login using your CUHK Computing ID and CWEM password.

You should then be able to select

2018-19 Term 2 - Network Information Theory

Main communication channel between teacher and students

- PIAZZA - all discussions will be hosted there
  - Signup link: piazza.com/cuhk.edu.hk/spring2019/ierg6154
  - Class link: piazza.com/cuhk.edu.hk/spring2019/ierg6154/home
Percentages

The final mark will be a weighted sum of three items

- Homeworks 20%
- Written examination (take home) 40% - third week of April !!
- Project 40%
Written examination

Examination details

- Take home, multi day examination
  - Give-out: Wednesday, Hand-in: Monday
- Please refrain from using internet
- No collaboration

Projects

- List of topics handed out in late-February
- Self-suggested topics also welcome
- We will reserve a day for project presentations
- You are welcome to talk to me