

ELEC 6026/ ELEC 8004 - Digital Signal Processing

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I. COURSE OUTLINE

Objective: To appreciate the fundamental concept, techniques and applications of DSP.

- DISCRETE-TIME SIGNALS AND SYSTEMS
- MULTI-DIMENSIONAL SIGNALS AND SYSTEMS
- RANDOM PROCESSES AND APPLICATIONS
- D ADAPTIVE SIGNAL PROCESSING



REFERENCES:

- A.V. Oppenheim and R. W. Schafer,
 Discrete-time signal processing.
 Prentice Hall, 1989 (new edition available).
- D.E. Dudgeon and R.M. Mersereau, Multidimensional digital signal processing. Prentice Hall, 1984.
- J. Lim Ed.
 Advanced topics in Signal Processing.
 Prentice Hall. 1988.
- J. Proakis et al.
 Advanced Digital Signal Processing.
 Macmillan, 1992 (new edition available).



COURSE ADMINSTRATION

<u>Assessment</u>

ELEC6026

■ 80% examination + 20% assignment.

ELEC8004

■ 60% examination + 20% project + 20% assignment.

Details will be announced later.



Lecture hours

- 2 hours lecture + half an hour tutorial.
- 30 hours for MSc. and 40 hours for RPG students.
- Extra 10 hours will be assigned to cover advanced DSP topics for RPG students (ELEC8004).
- T.A.: Mr. H. J. Tan (hjtan@eee.hku.hk)

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Mr. X. G. Wei (xgwei@eee.hku.hk)