

EE303: Communication Systems

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Topics & Course Information

Topics

Topics

- ① **Introductory Concepts**
- ② **Information Sources**
- ③ **Communication Channels & Criteria and Limits**
- ④ **Wireless Communications (SISO)**
- ⑤ **Constellation Diagram and Digital Modulators/Demodulators**
- ⑥ **Decision Theory**
- ⑦ **PN-codes, PN-signals and Basics of Spread Spectrum Comms**
- ⑧ **Principles of PCM**
- ⑨ **Principles of 3G (CDMA), 4G (OFDMA) and 5G**

Useful Connections

- Professor Manikas:
<http://skynet.ee.imperial.ac.uk/manikas.html>
- Lecture Notes:
<http://skynet.ee.imperial.ac.uk/notes/notes.html>
- Blackboard:
<https://bb.imperial.ac.uk>
- Panopto (video recordings of the Lectures):
<https://imperial.cloud.panopto.eu>
directory: [EE3-03 18-19](#)
- OneNote - Class Notebook

Coursework and other Important Information

- Coursework = compulsory
- Coursework = 20%.; Examination=80%
- Examination Date: 5th Dec 2018
- [Past Examination Papers](#) are **not** available for this course.
- [More than](#)
 - ▶ 50 representative [problems](#) and their solutions
 - ▶ 30 MCQ

are available and support this course

Course Academic Weeks & Deadlines

- Table-1 shows the Autumn Term academic weeks (A1-A11) and the deadlines of the various parts of the coursework

Table-1			
Academic Weeks - Autumn Term			Comments
Week-A1	1 Oct. 2018	7 Oct. 2018	Lectures
Week-A2	8 Oct. 2018	14 Oct. 2018	Lectures
Week-A3	15 Oct. 2018	21 Oct. 2018	Lectures
Week-A4	22 Oct. 2018	28 Oct. 2018	Lectures
Week-A5	29 Oct. 2018	4 Nov. 2018	Lectures
Week-A6	5 Nov. 2018	11 Nov. 2018	Lectures
Week-A7	12 Nov. 2018	18 Nov. 2018	Lectures
Week-A8	19 Nov. 2018	25 Nov. 2018	Classes
Week-A9	26 Nov. 2018	2 Dec. 2018	Classes
Week-A10	3 Dec. 2018	9 Dec. 2018	Exam
Week-A11	10 Dec. 2018	16 Dec. 2018	AM will be away (Conference)
			Coursework Deadline : 7th January 2019, 5:30pm

Books



Bernard Sclar

"Digital Communications - Fundamentals and Applications"

Prentice-Hall, 1988 or a more recent version.



I. A. Glover & P.M. Grant,

"Digital Communications",

Pearson and Prentice Hall, 2004.



S. Haykin,

"Communication Systems",

J. Wiley & Sons, 4rd edition, 2001.



R.E. Ziemer & R.L. Peterson,

"Introduction to Digital Communications",

MacMillan, 2nd edition, 2001.



R.L.Peterson, R.E.Zierner, D.E. Borth,

"Introduction to Spread Spectrum Communications",

Prentice Hall, 1995.