

Circuits & Systems for Communication

Course Syllabus

ZHAO BO

2024.09

Brief

■ Name: Circuits & Systems for Communication

■ Credit: 3

■ Time: Autumn-Winter Term

Friday, 11,12,and 13 class

■ Class Room: Yuquan Teaching Room #7-308

■ [射频电路与系统 - 学在浙大 \(zju.edu.cn\)](http://zju.edu.cn)

Teacher & TA



Teacher: Zhao Bo
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TA: Sun Junhong
jhsun@zju.edu.cn

Zhao Bo received Ph.D. degree from Tsinghua University, Beijing, China, in 2011. He worked in NUS and UC Berkeley from 2013 to 2018. Since 2018, he has been with Zhejiang University. He has authored or coauthored more than 60 articles and book chapters, and he holds 30 patents. His research interests include miniature radios, wireless power transfer, and wearable/implantable radios. He was a recipient of the Darlington Award, as well as the Design Contest Award of the 2013 IEEE International Symposium on Low Power Electronics and Design. He serves as an Associate Editor for the IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS, as well as an Associate Editor for the IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I: Regular Papers. He also serves as a Committee Member of IEEE/C/SM. He was the Publication Chair of the 2016 IEEE Biomedical Circuits and Systems Conference. In 2022, he was elected to be the Chair Elect of Biomedical and Life Science Circuits and Systems Society.

Outline

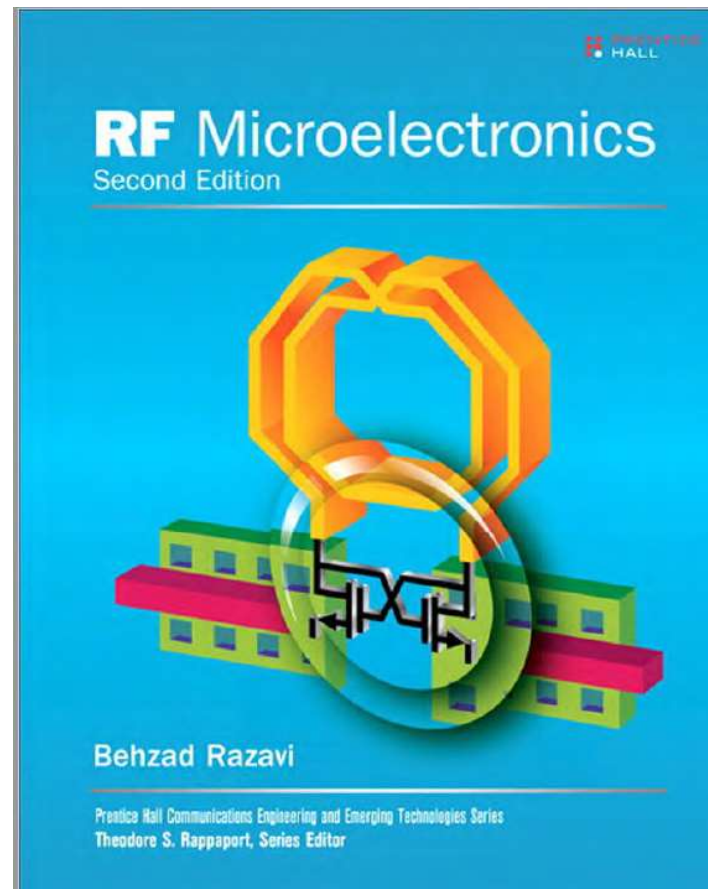
Class	Content	Homework
1	Introduction to RF Circuits & Systems	√
2	Transceiver Architectures (1/2)	√
3	Transceiver Architectures (2/2)	√
4	Low-Noise Amplifiers (1/2)	√
5	Low-Noise Amplifiers (2/2)	√
6	Mixers (1/2)	√
7	Mixers (2/2)	√
8	Passive Devices	√

Outline

Class	Content	Homework
9	Oscillators	✓
10	Phase-Locked Loops	✓
11	Frequency Synthesizers (1/2)	✓
12	Frequency Synthesizers (2/2)	✓
13	Power Amplifiers (1/2)	✓
14	Power Amplifiers (2/2)	✓
15	Summary	✓
16	Recent Advances	

Reference Book

1. 《RF Microelectronics》, 2nd Edition, **Behzad Razavi**



Examination

- 100 Points totally
- The final points include
 - 30 points for class attending and homework
 - 20 points for presentation
 - 30 points for the project
 - 20 points for final exam