

Analog IC Design Roadmap

Arabic Resources

No.	Course	Link	Material
1	Physics of Semiconductors PHM122	Videos Slides	Textbook Assignments
2 (VI)	Electronics ECE211 (Dr. Hesham Omran)	Videos Assignments Labs	Textbook 1 Textbook 2
3	Solid State Electronic Devices ECE213	Videos Slides Labs	Textbook Problem Sets
4	Digital Circuits ECE212 (Dr. Sameh Ibrahim)	Videos Assignments	Textbook Project (VI)
5 (Optional)	Analog Circuits 1 ECE312	Videos Assignments	Textbook 1 Textbook 2
6 (VI)	Analog IC Design (Dr. Hesham Omran)	Videos 1 Videos 2 Cadence Tutorials	Textbook Labs (VI) Slides
7	Digital IC Design (Dr. Hesham Omran)	Videos 1 Videos 2 Videos 3	Textbook Labs (VI) Slides
8	Fabrication and Layout Technology	Videos (Dr. Hani Ragaai) Videos (Dr. Sameh Ibrahim)	Textbook
Advanced Topics			
9 (Optional)	Modern VLSI Devices ECE317	Videos Slides Assignments	Textbook Other References
10	Analog IC Design ECE412	Videos Assignments	Textbook
11	Analog RF IC Design (Dr. Mohamed El-Nozahi)	Videos 1 Videos 2	Textbook Slides Assignments
12	Analog Integrated Systems Design ECE486	Videos Slides	Textbook Labs
Very Advanced Topics			
13	Power Management Units ECE639	Videos (Dr. Sameh Ibrahim) Videos (Dr. Faisal (CUFE)) Textbook 1	Slides Slides Textbook 2
14	High-Speed Serial Links (Dr. Sahmeh Ibrahim)	Videos	Slides
15	Introduction to MEMS Design	Videos	

English Resources

No.	Course	Link	Material
1	Integrated Circuit Devices EE130	Videos	Textbook Assignments
2 (Optional)	Solid State Devices EE230	Lecture Notes	References Assignments
3 (VI)	Razavi Electronics 1	Videos Assignments (ASU)	Textbook 1 Textbook 2
3.1 (Optional)	Microelectronic Devices and Circuits EE105	Videos	Textbook 2
4 (VI)	Razavi Electronics 2	Videos	Textbook Assignments (ASU)
5	Analog Integrated Circuits EE140	Videos	Textbook Assignments
6	Digital Integrated Circuits EE141	Videos Assignments (ASU) Cadence Tutorials	Textbook Assignments Labs
7	Microfabrication Technology EE143	Videos Labs	Textbook Assignments
8	Integrated Circuits for Communication (RF) EE142	Lecture Notes	Textbook Labs
Advanced Topics			
9	Advanced Analog Integrated Circuits EE240	Videos (Elad) Videos (Simone) Videos (Hajmiri)	Textbook 1 Textbook 2 Slides Assignments
10	Advanced Digital Integrated Circuits EE241	Videos Assignments	Textbook 1 Textbook 2
Very Advanced Topics			
11	High-Speed Electrical Interface Circuit Design EE290C (Serial Links)	Videos Textbook 2	Textbook1 Textbook 3
12	Analog-Digital Interface Integrated Circuits EE247	Videos Lecture Notes	Textbooks Assignments
13	CMOS and BiCMOS Data Conversion Circuits EE505	Videos Lecture Notes	Textbooks Assignments Labs
14	Introduction to MEMS Design EEC247B	Videos	Textbook Assignments