



Satuan Acara Pengajaran

ENET802005 - Disain RF Lanjut

Pengajar

Ir. Gunawan Wibisono M.Sc., Ph.D.

Minggu 1

Materi	Pendahuluan
Media	LCD
Referensi	1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008 2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000
Aktivitas	Kuliah mimbar, diskusi

Minggu 2

Materi	Rangkaian Transmitter Meliputi perancangan Filter, berbagai jenis filter, dan perancangan mixer up-converter
Media	LCD
Referensi	Cotter W Syare, "Complete Wireless Design," 2nd Edition, Mc Graw Hill, 2008
Aktivitas	Kuliah tatap muka, diskusi, dan assignment

Minggu 3

Materi Rangkaian Transmitter, Lanjutan.
Berisikan berbagai jenis power amplifier dan perancangan PA

Media LCD

Referensi Cotter W Syare, "Complete Wireless Design," 2nd Edition, Mc Graw Hill, 2008

Aktivitas Tatap muka, diskusi, dan assignment

Minggu 4

Materi Perancangan LNA, merancang LNA, evaluasi kinerja

Media LCD

Referensi 1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications', John Willey & Sons, 2000

Aktivitas Tahapan penentuan perancangan LNA, perancangan dengan ADS, evaluasi

Minggu 5

Materi Merancang Down-converter Mixer
Meliputi penentuan parameter, tahap merancang, dan evaluasi kinerja

Media LCD dan ADS

Referensi 1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications', John Willey & Sons, 2000

Aktivitas Mensimulasi rancangan Down-converter Mixer dengan menggunakan ADS

Minggu 6

Materi Multiband RF
Meliputi identifikasi faktor penentu multiband RF, perancangan, dan evaluasi

Media LCD dan ADS

- Referensi**
1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
 2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications', John Willey & Sons, 2000
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Aktivitas Menentukan perbedaan single band dan multiband, menentukan multiband RF, evaluasi kinerja

Minggu 7

Materi Aplikasi RF
Beberapa implementasi RF untuk menunjang dalam kehidupan sehari-hari seperti M2M/IoT

Media LCD

- Referensi**
1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
 2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications', John Willey & Sons, 2000
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Aktivitas Mengimplementasikan RF pada sistem komunikasi, kuliah tatap muka dan diskusi aktif

Minggu 8

Materi UTS

Media Buku dan soal

Referensi Materi kuliah

Aktivitas Menguji kompetensi siswa

Minggu 9

Materi Presentasi Simulasi Perancangan Transmitter

Media LCD dan ADS

- Referensi**
1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
 2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications', John Willey & Sons, 2000
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Aktivitas Merancang dan mensimulasikan rangkaian single band transmitter

Minggu 10

Materi Presentasi simulasi rangkaian receiver RF

Media LCD dan ADS

Referensi

1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas Mensimulasikan rangkaian receiver single band RF

Minggu 11

Materi Presentasi Rangkaian multiband Transmitter RF

Media LCD dan ADS

Referensi

1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas Presentasi hasil rancangan dan simulasi dengan ADS rangkaian multiband transmitter RF

Minggu 12

Materi Presentasi Rangkaian Multiband Receiver RF

Media LCD dan ADS

Referensi

1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas Presentasi hasil rancangan dan simulasi menggunakan ADS rangkaian multiband receiver RF

Minggu 13

Materi Presentasi Rancangan Rangkaian transmitter RF yang baru

Media LCD dan ADS

Referensi 1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas Merancang dan simulasi rangkaian RF yang baru

Minggu 14

Materi Presentasi rangkaian RF receiver yang baru

Media LCD dan ADS

Referensi 1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas Merancang, mensimulasikan rancangan dengan ADS, dan evaluasi kinerja

Minggu 15

Materi Presentasi hasil fabrikasi

Media LCD dan ADS

Referensi 1. Cotter W Syare, "Complete Wireless Design", 2nd Edition, Mc Graw Hill, 2008
2. U.L. Rohde and D.P. Newkirk, "RF/Microwave Circuit Design for Wireless Applications", John Willey & Sons, 2000

Aktivitas merancang fabrikasi sistem RF yang dibuta

Minggu 16

Materi UAS

Media Buiku dan soal

Referensi

Aktivitas Ujian akhir semester
