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Lectures

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01-Lecture-Basic Circuits-Jan 12



01-Hello and Analog Basics-handout

PowerPoint Presentation



02-Lecture-Impedance Combination-Jan 14



02-Impedance Combination-handout-2

PowerPoint Presentation



03-Lecture-Standard Waveforms-Jan 21



03-Calculations with Waveforms-handout

PDF document



03-Key Waveforms

PDF document



04-Lecture-Capactors and Inductors in the Time Domain-Jan 26



04-Capacitor and Inductors in the Time Domain-handout

PDF document



05-Lecture-RC Circuits with Differential Equations-Jan 28



05-RC with Differential Equations-handout

PDF document



06-Lecture-RL with Differential Equations-Feb 2



06-RL with Differential Equations-handout

PDF document



07-Lecture-Exam 1-Feb 4



Exam -1 -solutions - 2025

PDF document



08-Lecture-Laplace Transforms-Feb 9



08-Intro to Laplace-handout-Nixon

PDF document



08b-Laplace Transforms Table-Nixon

PDF document



09-Lecture-RC Circuits with Laplace Transforms-Feb 11



09 - Laplace First Order - handout

PDF document



RC-V-tf

M File



CR-V-tf

M File



Laplace-seed

MS14 File



RC-Laplace

MS14 File



Transient Analysis with Multisim

PDF document



10-Lecture-RL Circuits with Laplace Transforms-Feb 16



11- RL Laplace-handout

PDF document



LR-V-seed-tf

M File



LR-V-tf

M File



LR-Laplace

MS14 File



LR-Laplace-component

MS14 File



RL-Laplace

MS14 File



RL-Laplace-component

MS14 File



11-Lecture-CLR Series Circuits-Feb 18



11 - Laplace second Order - Series RLC-
handout

PDF document



11-SecondOrderRLCSeries-seed

M File



11-SecondOrderRLCSeries

M File



RLC Laplace

MS14 File



RLC Components

MS14 File



12-Lecture-2nd Order Parameters-Feb 23



12-RLC Series - 2-slides

PDF document



12-SecondOrderRLCSeries

M File



SettlingTime Itiview

PDF document



Second Order Laplace-seed

MS14 File



13-Lecture-LC Filters-Feb 25



13- Laplace LC Low Pass Filter-handout

PDF document



13-LaplaceLCLowPass

M File



2nd Order LP Laplace

MS14 File



14-Lecture-Exam 2



Exam -2 -solutions - 2025



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15-Lecture-Introduction to Filtering-Mar 4



16-Class-Intro to Filtering s and the Bode Plot-handout



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16-Class-RC-seed



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16-Class-RC



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Low Pass Filter Example

MS14 File



16-Lecture-Second Order Sallen-Key Filter-Mar 9



16a-Butterworth 2nd order lp-handout-1

PDF document



2nd order ButterworthLP-Bode Plot options

M File



2ndOrderLP-seed

MS14 File



16-AC Analysis with Multisim

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17-Lecture-Filter Order and Types-Mar 11



17-Lecture-Filter Types-handout



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Expanded Damping and fLP factors



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2nd order Bessel



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2ndOrderBessel



MS14 File

2nd order ChebyLP



M File

2ndOrderChebyshev



MS12 File

3rd order Bessel LP



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3rdOrderBesselLP

MS14 File



18-Lecture-Filter Design Project-Mar 23



18-Project Design Example-handout

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4thorderLowPass-4th 2dB Cheby

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4thOrder2dBChebyLP-seed-1

MS14 File



19-Lecture-Banspass Filters-Mar 25



19-2nd Order BP-Multifeedback-handout (2)

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2nd order BP-seed

M File



2nd Order BP - Multisim - seed

MS14 File



20-Lecture-Bandpass Design Project-Mar 30



20-Lecture-4thOrderBP-handout

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2ndorder-1BP-seed

M File



4th order BP-seed

M File



23-4th Order BP - Multisim - seed

MS14 File



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