

YENEPOYA INSTITUTE OF TECHNOLOGY

Thodar, moodbidri

Details of online classes

Academic Year: 2019-2020

Course and Course Code	Faculty	Module	Topics Covered	Material link (Video/ppt/Notes/ Question Bank etc)
		1	P-N Junction Diode, Equivalent Circuit, How To Solve Diode Circuit Problems In Series and Parallel Using Ohm's Law and KVL	Video link: 1. https://www.youtube.com/watch?v=USrY0JspDEgV https://www.youtube.com/watch?v=OyC02DWq3ml ematerial: https://drive.google.com/drive/folders/1iH0dLm6fkaBYeiNW45AWivEEvHMC1a0o?usp=sharing
		1	Full Wave Rectifier and Capacitor Filter	Video link: 1. https://www.youtube.com/watch?v=74QrYyYsftY 2. https://www.youtube.com/watch?v=ruEYtTYePRk 3. https://www.youtube.com/watch?v=qEMD2F2kGN0 ematerial link: 1. http://uav.ecs.nus.edu.sg/~bmchen/courses/EG1108_Rectifiers.pdf 2. https://slideplayer.com/slide/13172854/ 3. http://vlabs.iitb.ac.in/vlab/electrical/exp2/Theory.pdf
		1	Photo Diode, LED and Photo Coupler	Video link: 1. https://www.youtube.com/watch?v=Pa8_icinxc0 2. https://www.youtube.com/watch?v=4y7p9R2No-4 3. https://www.youtube.com/watch?v=qRFiAQuBNRM ematerial link: 1. http://www.idc-online.com/technical_references/pdfs/electronic_engineering/Photo_Diode.pdf 2. http://www.osioptoelectronics.com/application-notes/AN-Photodiode-Parameters-and-Characteristics.pdf 3. https://www.electronics-tutorials.ws/diode/diode_8.html 4. https://web.phys.ksu.edu/vqm/VQMNextGen/App&ModelBuilding/led.pdf 5. https://electronicscoach.com/optocouplers.html 6. http://www.idc-online.com/technical_references/pdfs/electronic_engineering/Optocoupler_devices_and_application.pdf
			78xx SERIES AND 7805 FIXED IC VOLTAGE REGULATOR	Video link: 1. https://www.youtube.com/watch?v=OAoEWaGtQjs 2. https://www.youtube.com/watch?v=toGiE0rR-mA ematerial link: 1. http://www.ajlontech.com/5.voltage regulator.pdf 2. https://www.electronicshub.org/understanding-7805-ic-voltage-regulator/
		4	Module 4: Introduction to BJT, BJT as a switch.	Video link: 1. https://www.youtube.com/watch?v=-VwPSDQmdjM 2. https://www.youtube.com/watch?v=KFCgel4j-Ig 3. https://www.youtube.com/watch?v=_KXldjWYyXI&list=PLzJaFd3A7DZsA8xZg3tgoshbollBY98cB&index=21 4. https://www.youtube.com/watch?v=5DoYuxDzczQ 5. https://www.youtube.com/watch?v=SmZ2-Fhyoo0 ematerial link: 1. https://www.electronicsforu.com/videos-slideshows/slideshows-presentations/introduction-bipolar-junction-transistor-bjt 2. https://www.electronics-tutorials.ws/transistor/tran_4.html 3. http://homes.et.aau.dk/akh/2011/Analog-elec-actu-2011_files/akbar-analog-electronics-07-2011.pdf 4. http://aries.ucsd.edu/NAJMABADI/CLASS/ECE65/12-W/Slides/ECE65_W12-BJT.pdf 5. https://www.pitt.edu/~qiw4/Academic/ME2082/Transistor%20Basics.pdf

4	RC Phase Shift Oscillator, Wien Bridge Oscillator	<p>Videos:1. https://www.youtube.com/watch?v=kreCXpRYOOA 2. https://www.youtube.com/watch?v=i9754WMGOio 3. https://www.youtube.com/watch?v=dAwUbQ5H8e4 4. https://www.youtube.com/watch?v=4rhy5p2AFi0 Other:1. https://www.electronics-tutorials.ws/oscillator/rc_oscillator.html 2. https://circuitdigest.com/tutorial/rc-phase-shift-oscillator 3. http://vlabs.iitb.ac.in/vlab/electrical/exp7/Theory.pdf 4. https://www.electronics-tutorials.ws/oscillator/wien_bridge.html 5. https://slideplayer.com/slide/6051038/</p>								
4	Module 4: Introduction to BJT, BJT as a switch.	<p>Video link: 1. https://www.youtube.com/watch?v=-VwPSDQmdjM 2. https://www.youtube.com/watch?v=KFCgel4j-Ig 3. https://www.youtube.com/watch?v=_KXldjWyYXI&list=PLzJaFd3A7DZsA8xZg3tgoshb0lIBY98cB&index=21 4. https://www.youtube.com/watch?v=5DoYuxDzczQ 5. https://www.youtube.com/watch?v=SmZ2-Fhyoo0 ematerial link: 1. https://www.electronicsforu.com/videos-slideshows/slideshows-presentations/introduction-bipolar-junction-transistor-bjt 2. https://www.electronics-tutorials.ws/transistor/tran_4.html 3. http://homes.et.aau.dk/akh/2011/Analog-elec-actu-2011_files/akbar-analog-electronics-07-2011.pdf 4. http://aries.ucsd.edu/NAJMABADI/CLASS/ECE65/12-W/Slides/ECE65_W12-BJT.pdf 5. https://www.pitt.edu/~qiw4/Academic/ME2082/Transistor%20Basics.pdf</p>								
4	Transistor switch circuit to switch ON/OFF an LED and lamp in a power circuit using a relay.	<p>1. https://www.youtube.com/watch?v=iJshbz5JYuw 2. https://www.youtube.com/watch?v=ERy8NC_Kzrk 3. https://www.youtube.com/watch?v=8ZEQEV-Stkc https://www.electronicshub.org/transistor-as-a-switch/ 2. https://www.electronics-tutorials.ws/transistor/tran_4.html</p>								
4	Feedback amplifiers –Principle, properties and advantages	1. https://www.youtube.com/watch?v=m4sjTt7rhow 2. https://www.youtube.com/watch?v=4HdsZ1yz_vY 3. https://www.youtube.com/watch?v=hU8								
4	Types of Feedback, voltage series feedback, Gain stability	1. https://www.youtube.com/watch?v=7alcsFiUiqQ 2. https://www.youtube.com/watch?v=6ZO2LLkAMnY 3. https://www.youtube.com/watch?v=6ZO2LLkAMnY								
4	Oscillators – Barkhausen’s criteria for Oscillation	https://www.youtube.com/watch?v=iOI-EYq02W0 2. https://www.youtube.com/watch?v=0yTcqmhYXE0 3. https://www.youtube.com/watch?v=0yTcqmhYXE0								
4	RC Phase Shift Oscillator, Wien Bridge Oscillator	<p>Videos:1. https://www.youtube.com/watch?v=kreCXpRYOOA 2. https://www.youtube.com/watch?v=i9754WMGOio 3. https://www.youtube.com/watch?v=dAwUbQ5H8e4 4. https://www.youtube.com/watch?v=4rhy5p2AFi0 Other:1. https://www.electronics-tutorials.ws/oscillator/rc_oscillator.html 2. https://circuitdigest.com/tutorial/rc-phase-shift-oscillator 3. http://vlabs.iitb.ac.in/vlab/electrical/exp7/Theory.pdf 4. https://www.electronics-tutorials.ws/oscillator/wien_bridge.html 5. https://slideplayer.com/slide/6051038/</p>								
4	IC 555 Timer	1. https://www.youtube.com/watch?v=EGmreVQ-yNM 2. https://www.youtube.com/watch?v=i0SNb_dkYI 3. https://www.youtube.com/watch?v=i0SNb_dkYI								
2	and Astable	<p>Videos: 1. https://www.youtube.com/watch?v=PMOaS967Yus&list=PLHCcQ51UCBxiL2lhroYUL9JSaQS3cNev 2. https://www.youtube.com/watch?v=PMOaS967Yus 3. https://www.youtube.com/watch?v=kVMGZ6_nbP8 4. https://www.youtube.com/watch?v=-rzEsUvo-JY others: 1. https://www.electronicshub.org/transistors-classification-and-types/ 2. https://www.electronics-tutorials.ws/transistor/tran_5.html</p>								

Electronics 18	Mr. Bharatesh, Mr. Shashank M. Gowda and Mr. Naveena Pai	2	Oscillator using	Videos: 1. https://www.youtube.com/watch?v=_DZ7baOhNFQ 2. https://www.youtube.com/watch?v=2l_8YNVgbEw Others: 1. https://circuitdigest.com/tutorial/what-is-jfet-basics-construction-working-and-biasing 2. https://electronicspost.com/explain-the-construction-and-working-of-a-jfet-what-is-the-difference-between-a-jfet-and-a-bjt/						
		2	IC555	Videos: 1. https://www.youtube.com/watch?v=Dd4im8TMAk0 2. https://www.youtube.com/watch?v=h9WIHNVHZ84 3. https://www.youtube.com/watch?v=Vw4V0hRg0oE Others: 1. https://electronicscoach.com/characteristics-of-jfet.html 2. http://www.circuitstoday.com/characteristics-of-jfets 3. https://coefs.uncc.edu/dlsharer/files/2012/04/J3a.pdf 4. http://websupport1.citytech.cuny.edu/faculty/mseip/files/ee/docs/ET212/PP T/FETs.ppt						
		2	Square law expression for ID, Input resistance	Videos: 1. https://www.youtube.com/watch?v=kVMGZ6_nbP81 . Others: 1. https://www.slideshare.net/yordibautista/jfet-electronica-2 2. http://www.kennethkuhn.com/students/ee351/jfet_basics.pdf 3. https://www.slideshare.net/chinkitkit/latest-topic-5-fieldeffecttransistors						
		2	FET: Depletion and Enhancement type MOSFET constru	Videos: 1. https://www.youtube.com/watch?v=I9LBly9Ioxo 2. https://www.youtube.com/watch?v=XqGBNyhlmV4 ematerials: 1. https://www.electronicshub.org/mosfet/ 2. https://www.electronics-tutorials.ws/transistor/tran_6.html 3. https://www.slideshare.net/ishwarbhoge/mosfets-75340394						
		2	Silicon Controlled Rectifier(SCR) – Two transistor Mode	Videos: 1. https://www.youtube.com/watch?v=klVAL3WsRFQ 2. https://www.youtube.com/watch?v=fW9NwCt7DI ematerials: 1. https://www.slideshare.net/Hamayun14373Liaqat/thyristor-characteristics-two-transistor-model-of-thyristor-thyrisror-turn-on-and-off 2. https://pnpntransistor.com/two-transistor-analogy-of-scr/ 3. https://learnabout-electronics.org/Semiconductors/thyristors_60.php						
		2	SCR switching action.	Videos: 1. https://www.youtube.com/watch?v=NnMsazNWmkg 2. https://www.youtube.com/watch?v=lwiRKD20rvI 3. https://www.youtube.com/watch?v=KvbsrvLQzDM ematerials: 1. https://www.slideshare.net/9276325/een-315 2. http://www.circuitstoday.com/sr-principle-of-operation						
		2	SCR Characteristics, Phase Control Applications	Videos: 1. https://www.youtube.com/watch?v=9h7_vDUE908 2. https://www.youtube.com/watch?v=M7sTj8syKNQ 3. https://www.youtube.com/watch?v=Fa1fC76YluU 4. https://www.youtube.com/watch?v=5Aa_IUCCTy8 ematerials: 1. https://www.brighthubengineering.com/commercial-electrical-applications/58051-characteristics-and-applications-of-scr-thyristors/ 2. https://electronicspost.com/draw-and-explain-the-v-i-characteristics-of-an-scr/ 3. http://www.circuitstoday.com/sr-control-circuits 4. https://www.electronicshub.org/sr-applications/						

3	Module 3: Introduction to Op-Amp	<p>videos: 1. https://www.youtube.com/watch?v=s5jUxDrBfkk 2. https://www.khanacademy.org/science/electrical-engineering/ee-amplifiers/ee-opamp/v/ee-opamp-intro ematerials: 1. https://www.electronics-tutorials.ws/opamp/opamp_1.html 2. https://www.electronics-notes.com/articles/analogue_circuits/operational-amplifier-op-amp/op-amp-basics.php 3. https://www.analog.com/media/en/training-seminars/design-handbooks/Basic-Linear-Design/Chapter1.pdf</p>				
3	Op-Amp input modes, Op-Amp parameters-CMRR	<p>videos: 1. https://www.youtube.com/watch?v=NO_UbnkL_bs 2. https://www.youtube.com/watch?v=3RhjBwmXZdc 3. https://www.youtube.com/watch?v=hpCu3HbAiWg&list=PLwjK_eyJ4LLDBB1E9MFbxGCEnmMMOAXOH&index=10 4. https://www.youtube.com/watch?v=SRR4XNIOkCU ematerials: 1. https://www.daenotes.com/electronics/devices-circuits/operational-amplifier-modes-operation 2. https://www.quora.com/p/33327/explain-input-modes-cmrr-for-op-amp-1/ 3. https://learnabout-electronics.org/Amplifiers/amplifiers61.php</p>				
3	set voltage and current, Input bias current, Input and output	<p>videos: 1. https://www.youtube.com/watch?v=hUu3SqRSYyA 2. https://www.youtube.com/watch?v=c3X7_ohCTSw 3. https://www.youtube.com/watch?v=wfkzz1rg-xk 4. https://www.youtube.com/watch?v=2DFIr6t1hbc&list=PLwjK_eyJ4LLDBB1E9MFbxGCEnmMMOAXOH&index=9 5. https://www.youtube.com/watch?v=j7INuJnNVdY ematerials:1. https://www.slideshare.net/SATHEESHMONIKANDAN/2opamp-parameters 2. https://pdfs.semanticscholar.org/6bf7/9b7d75c6fb3c9373ea9aa931201fa3c90998.pdf 3. http://www-inst.eecs.berkeley.edu/~ee105/fa14/lectures/Lecture06-Non-ideal%20Op%20Amps%20(Offset-Slew%20rate).pdf 4. https://www.slideshare.net/SiddiquiMahboob/op-amp-53203882</p>				
3	Applications of Op-Amp: Inverting Amplifier	<p>Videos: 1. https://www.khanacademy.org/science/electrical-engineering/ee-amplifiers/ee-opamp/v/ee-inverting-opamp 2. https://www.youtube.com/watch?v=AuZ00cQ0UrE ematerials: 1. https://www.electronics-tutorials.ws/opamp/opamp_2.html 2. https://www.electronics-notes.com/articles/analogue_circuits/operational-amplifier-op-amp/inverting-amplifier.php 3. https://circuitdigest.com/tutorial/inverting-operational-amplifier-op-amp</p>				

			<p>videos: 1. https://www.youtube.com/watch?v=uyOfonR_rEw 2. https://www.khanacademy.org/science/electrical-engineering/ee-amplifiers/ee-opamp/v/ee-noninverting-opamp 3. https://www.youtube.com/watch?v=jsKSfaFQ4d4 4. https://www.khanacademy.org/science/electrical-engineering/ee-amplifiers/ee-opamp/v/ee-summing-opamp ematerials:1. https://www.electronicshub.org/non-inverting-operational-amplifiers/ 2. https://www.electronics-tutorials.ws/opamp/opamp_3.html 3. https://www.electronics-notes.com/articles/analogue_circuits/operational-amplifier-op-amp/non-inverting-amplifier.php 4. https://www.electronicdesign.com/resources/ideas-for-design/article/21799355/efficiently-design-an-opamp-summer-circuit 5. https://www.electronics-tutorials.ws/opamp/opamp_4.html 6. https://www.electronicshub.org/summing-amplifier/ 7. https://www.slideshare.net/lqwanMuhammad/operational-amplifier-13871534</p>					
	3	Applications of Op-Amp : Non-inverting amplifier, Sum						
	3	Applications of Op-Amp : Voltage follower, Integrator	<p>Videos: 1. https://www.youtube.com/watch?v=gtJPeh3HvHU 2. https://www.youtube.com/watch?v=ZjcLIHcsDZs 3. https://www.youtube.com/watch?v=OPvs7A554Rw 4. https://www.youtube.com/watch?v=GVEIk0B3ky0 ematerials: 1. http://resource.download.wjec.co.uk.s3.amazonaws.com/vtc/2016-17/16-17_1-9/gce-electronics-book-chapter-4.pdf 2. https://www.allaboutcircuits.com/video-tutorials/op-amp-applications-voltage-follower/ 3. https://www.electrical4u.com/voltage-follower/ 4. https://www.electronicshub.org/operational-amplifier-as-integrator/ 5. https://www.electronics-tutorials.ws/opamp/opamp_6.html</p>					
	3	Applications of Op-Amp : Differentiator, comparator	<p>1. https://www.youtube.com/watch?v=aU24RWlgJV8 2. https://www.youtube.com/watch?v=k9zQjEaKtfk 1. https://www.electronicshub.org/operational-amplifier-as-differentiator/ 2. https://www.electronics-tutorials.ws/opamp/opamp_7.html 3. https://www.electronics-tutorials.ws/opamp/op-amp-comparator.html 4. https://www.electronics-notes.com/articles/analogue_circuits/operational-amplifier-op-amp/comparator.php</p>					