

Approved by AICTE, New Delhi., Affiliated to JNTUK, Kakinada Kesanupalli Village, Narasaraopet - 522 601. Palnadu Dist. A.P.

Phone No. 9121214708

Email ID: principal@eswarcollegeofengg.org, eswarcollegeofengg@gmail.com

web:eswarcollegeofengg.org

#### Department of Electronics and Communication Engineering

21-01-2019

To The Principal Eswar College of Engineering Narasaraopet

**Through HOD-ECE** 

From B Bhavani Assistant Professor Faculty Coordinator

Sub: Requesting for permission to conduct a value-added course on " Microelectronics Devices from 04-02-2019 to 08-02-2019".

Dear Sir.

The Department of ECE is planning to organize a 1-week value-added course on "Microelectronics Devices" from 04-02-2019 to 08-02-2019.

Total Number of Students registered:

102 No's (III B.Tech II Sem ECE-A and B).

Resource Person:

SK Jilani Noor Basha, Assistant Professor, Department of ECE, RISE Institute of Gandhi,

Ongole

Certificate Criteria:

60% of marks in Evaluation, 80% of attendance

In connection with the programme, we request your approval to organize the same and to make the programme a grand success.

Thanks and regards,

Name:, B Bhavani

Signature Will

B. RHAVANI

Department of ECE

Eswar College of Engineering Kesanupalli (V), Narasaraopet - 522 643.

Approved/Rejected

HOD-Comments Plat Corridor

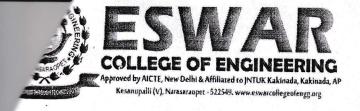
Principal Comments:

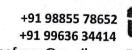
ESWAR COLLEGE OF ENGINEERING

LSWAR COLLEGE OF ENGINEERING NARASARAOPET-522 501, Guntur (DL)

PRINCIPAL

NAMASAMADPET-522 601, Guntur (DI







Email: eswarcollegeofengg@gmail.com Website: www.eswarcollegeofengg.org



Date: 28-01-2019

#### CIRCULAR

All B.Tech III/II ECE students are hereby notified that a value added course titled "Microelectronics:Devices" will be conducted from 04-02-2019 to 08-02-2019It is mandatory for all students to enroll their names with course co-ordination Sk Lal John Basha, Assistant Professor, Department of ECE.

Copy to:

CSE - May

S&H - AK

NARASARAOPET-522 001, Guntur (DL)

Accounts

Exam Cell \_ Ulerug

Class Rooms:

211 A 212 A 213 MA 110 Rem 237 A 232 Chall 113. 869 236 G.D 235 AD 210 D

Kesanupalli (V), Narasaraopet – 522601 PRINCIPAL GUNU (P)

## Objectives:

- and applications of microelectronic devices. fundamental principles, operation, comprehensive understanding participants provide
- To equip participants with practical skills in analyzing and designing microelectronic circuits and systems, enhancing their ability to implement and troubleshoot electronic devices.
  - integrated circuits, emerging technologies, and their impact on modern electronic solving abilities by exploring advanced To foster critical thinking and problemin microelectronics, such systems topics

### Outcomes

including semiconductor materials, diodes, and understanding of microelectronics principles, Participants will gain a comprehensive transistors.

microelectronic circuits and systems, enhancing Participants will develop practical skills in analyzing, designing, and implementing their hands-on experience.

microelectronics, such as integrated circuits Participants will explore advanced topics in (ICs), field-effect transistors (FETs), and emerging nanoelectronic technologies..

real-world engineering problems and challenges. applying microelectronics knowledge to solve Participants will demonstrate proficiency in

# Course Content

- Introduction to Microelectronics
- Semiconductor Diodes
- Bipolar Junction Transistors (BJT)
  - Field-Effect Transistors (FET)
- Integrated Circuits and Future Trends

# Resource Person

SK Jilani Noor Basha, Assistant Professor, Department of ECE, RISE Institute of Gandhi, Ongole

Eligibility:

This course is intended for IV B.Tech I Sem ECE

Scheduled date

04-02-2019 to 08-02-2019

Last date For Receipt of Application

02-02-2019.

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#### DEPARTMENT OF ELECTRONICS MICROELECTRONICS DEVICES ONE WEEK ADD-ON COURSE AND COMMUNICATION Kesanupalli (V), Narasaraopet ESWAR COLLEGE OF ENGINEERING, ENGINEERING Organized by

04-02-2019 to 08-02-2019

Registration Form

Department:\_

Contact No.:

--mail:\_

# About college

strong. The young and dynamic promoters have selected this rural and making the students technologically superior and ethically instill high patterns of discipline in order to set global standards year 2008 -09 and sponsored by Shaik Dada Saheb Charitable Eswar College of Engineering was established during the academic area with lot of foresight. The Institution is spread over 22 acres of Trust, with a vision of Imparting futuristic technical education and

lush green landscape and located at 5th km stone on the places near by are Kotappakonda, Amaravathi, Surylanka Beach. M.Tech-PE&ED, DECS, CSE, CAD/CAM & MBA. The tourist Courses B.Tech-CIVIL, EEE, ECE, CSE, AME, ME, PG Courses Narasaraopet- Chilakaluripet Road. The Institution offers the UG Manipal K12, Bangalore, thevery first college in Andhra Pradesh Hyderabad and introduced CIT Programme for students International Institute of Information Technology IIIT-Eswar College of Engineering is having MOU with Digital Class facility is also provided in association with

# About department

was subsequently raised to 120 over a period of time. It offers was founded. It started with an intake of 60 students which came into existence in 2001 immediately when the institute The Department of Electronics & Communication Engineering Communication Engineering, 2 Year M. Tech degree in Digital 4 year B.Tech degree program Electronics and Communication system with an intake of 18. in Electronics &

research, advocating for ethical principles, and addressing communication engineering by conducting cutting-edge Vision: To excel in the emerging fields of electronics and societal needs

disseminate knowledge by organizing through effective teaching learning To provide strong fundamentals and technical skills Methodologies, seminars, field

visits and workshops.

- collaborations with industry and academia. provide an ambiance for research through
- with high ethical and moral values, who contribute in To develop responsible citizens and professional leaders

# CHIEF PATRONS

SRI.SHAIK.MEERAVALI

Chairman

SRI.SHAIK.KAREEM MOHIDDIN

Secretary & Correspondent

SRI.SHAIK MASTHAN SHARIF

Managing Director

# **PATRON**

DR.G. NAGA MALLESWARA RAO

Principal

## Convener

Dr SK Mirza Shafi shahasavar,

HOD-ECE Department,

The Co-Ordinator.

# ONE WEEK ADD-ON COURSE

MICROELECTRONICS DEVICES

ESWAR COLLEGE OF ENGINEERING

KESANUPALLI (V),

NARASARAOPET (M),

# Declaration:

of my knowledge. I agree to abide by the rules and regulations governing the The above is formation is true to the best course. If selected I shall attend the under take the responsibilities to inform course for the entire the duration. I also the coordinator in case I am unable to attend the course

Place:

Date:

Signature of the applicant

Sponsorship certificate:

Mr/ Mrs./

Is an employee of our institute/ Dr.....

E-mail: www.eswarcollegeofengg.org. Phoper-span selected. organization and is here by sponsored and

Date



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#### **Department of Electronics and Communication Engineering**

Course Name: Microelectronics Devices

Proposed Syllabus

#### Day 1: Introduction to Microelectronics

Basics of Microelectronics, Definition, history, and importance, Overview of microelectronic devices and their applications, Semiconductor Materials, Types of semiconductors: intrinsic and extrinsic, Semiconductor doping and carrier concentrations

#### Day 2: Semiconductor Diodes

PN Junction Diode, Principle of operation, I-V characteristics, Applications: rectifiers, clippers, and clampers, Special Diodes, Zener diode, Schottky diode, LED, and photodiode, Characteristics and applications

#### Day 3: Bipolar Junction Transistors (BJT)

Basics of BJT, Principle of operation, modes of operation, BJT characteristics: alpha, beta, and V-I curves, BJT Amplifiers and Switching Circuits, Common emitter, common base, and common collector configurations, Applications in amplifiers and digital circuits

#### Day 4: Field-Effect Transistors (FET)

Basics of FET, Principle of operation: JFET and MOSFET, FET characteristics and I-V curves, FET Amplifiers and Applications, Common source, common drain, and common gate configurations, Applications in amplifiers, switches, and integrated circuits

#### Day 5: Integrated Circuits and Future Trends

Basics of Integrated Circuits (ICs), Types of ICs: analog, digital, and mixed-signal, IC fabrication techniques: CMOS, BiCMOS, Emerging Trends in Microelectronics, Nanoelectronics, MEMS, and quantum devices, Future prospects and research opportunities

#### **CO** Statements

CO's	CO Statements
CO1	Participants will gain a comprehensive understanding of microelectronics principles,
COI	including comiconductor materials, diodes, and transistors.
CO2	Portioinants will develop practical skills in analyzing, designing, and implementing
COZ	· 1 density and systems enhancing their hands-on experience.
000	Participants will explore advanced topics in microelectronics, such as integrated circuits
CO <sub>3</sub>	(ICs), field-effect transistors (FETs), and emerging nanoelectronic technologies
	Participants will demonstrate proficiency in applying microelectronics knowledge to
CO <sub>4</sub>	Participants will demonstrate proficiency in applying interoelectromes and
	solve real-world engineering problems and challenges.
CO5	Destining the will collaborate on group projects to design and projectype innovative
COS	microelectronic devices, fostering teamwork and innovation skills.
	Illici delectionic devices, iosternig

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#### Department of Electronics and Communication Engineering

#### Feedback form

Course Name: Microelectronics Devices

#### Please place tick marks at the respective column

S.No	Particulars	Excellent	Very good	Good	Average	Poor
1	How well did you achieve this learning goal in this course?	V				-
2	Does the course contain meet the expectation?		/			
3	Is The lecture sequence was well planned					
4	Does the Lecture content illustrate with adequate examples		<b>/</b>			
5	Do you Level of the course up to the standards?					
6	Does the Course meets the level of new knowledge	/				8
7	Is th lecture clear and easy to understand?	/				
8	Did your expect Teaching aids are effectively used?					
9	Does the resource person interacted well and cleared the doubts.	V				
10	Overall organization of the course		/			

#### Comments

- 1. Basics of microelectronics one explanied very well
- 2. Over view of Ditterent biodes understand

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A.tcastulo Signature of the student



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#### **Department of Electronics and Communication Engineering**

#### Feedback form

Course Name: Microelectronics Devices

#### Please place tick marks at the respective column

S.No	Particulars	Excellent	Very good	Good	Average	Poor
1	How well did you achieve this learning goal in this course?	~				
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4	Does the Lecture content illustrate with adequate examples					
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6	Does the Course meets the level of new knowledge		V			
7	Is th lecture clear and easy to understand?		<b>√</b>			
8	Did your expect Teaching aids are effectively used?					
9	Does the resource person interacted well and cleared the doubts.					
10	Overall organization of the course					

#### Comments

1.	operation	OF BIL	understand	cleary
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2. Basic Things of FET is explained well

By Str. Nagler

Signature of the s

Signature of the student

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#### **Department of Electronics and Communication Engineering**

#### Feedback form

Course Name: Microelectronics Devices

#### Please place tick marks at the respective column

S.No	Particulars	Excellent	Very good	Good	Average	Poor
1	How well did you achieve this learning goal in this course?					
2	Does the course contain meet the expectation?					
3	Is The lecture sequence was well planned	V				
4	Does the Lecture content illustrate with adequate examples					
5	Do you Level of the course up to the standards?					
6	Does the Course meets the level of new knowledge	/				
7	Is th lecture clear and easy to understand?		~			
8	Did your expect Teaching aids are effectively used?		V			*
9	Does the resource person interacted well and cleared the doubts.		V			
10	Overall organization of the course	V				

#### Comments

1.	Brief	explain	about	TCS	15	understand	
----	-------	---------	-------	-----	----	------------	--

2. Trends in micro electronics is explained well

H. Achard. Signature of the student

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# Department of Electronics and Communication Engineering Feedback Analysis

Course Name: MICROELECTRONICS DEVICES

Number of students attended/ given feedback

		Dynollont	Very good	Good	Average	Poor	levels
S.No	Particulars	Excellent	111 8000		0		1
1	How well did you achieve this learning	62	20	18			0.84559
	goal in this compet.			10	Y		0.85049
2	The course contain meet the expectation	04	44				
	ment le de la company de la co	89	20	16	2		0.84804
<b>(</b>	The recture sequence was wen prainted						
7	Lecture content illustrated with adequate	62	20	17	2		0.84314
	examples		A Property of the Property of				
v.	Level of the course up to the mark?	99	20	13	2		0.86275
	Course highlights the level of new	2)	30	7	2		0.88235
9	knowledge	CO	OC .				
	Til 1. 4 sing alone and easy to				4		0 83333
7	The lecture was creat and casy to	62	21	77			
	unuenstanu :						7.000
∞	Teaching aids are effectively used?	61	20	18	2		0.83824
	Land House Laborate						0.0000
•	The resource person interacted well and	99	12	22	7		0.84804
_	cleared the doubts.						
10	Overall organization of the course	70	20	4	···	m	0.8652
O.T.			Right				0.85172

3.406862745 ESWAR COLLEGE OF ENGINEERING

Over all feedback value:



A) Zener diode

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web:eswarcollegeofengg.org

#### Department of Electronics and Communication Engineering

**Course Name:** MicroelectronicsDevices Evaluation of the Value-Added Courses

Answer all the Questions Each Question Carry 1 Mark

**Total Marks: 20M** Min Marks: 12 Marks Name of the Student H.T.No: Marks obtained: 1. What is the primary function of a PN junction diode? 1 A) Signal amplification B) Rectification C) Switching D) Oscillation 2. Which semiconductor material is used in an N-type semiconductor? B) Germanium A) Silicon C) Boron D) Phosphorus 3. What does BJT stand for? A) Bipolar Junction Transistor B) Bi-directional Junction Transistor C) Binary Junction Transistor D) Base-Junction Transistor 4. What type of diode is used as a voltage regulator? A) Zener diode D) Schottky diode B) LED C) Photodiode 5. Which FET configuration has the highest input impedance? A) Common source B) Common drain C) Common gate D) Common collector 6. What is the main advantage of CMOS technology over other IC fabrication techniques? 1 A) Higher speed B) Lower power consumption C) Larger die size D) Higher cost 7. What is the primary purpose of a photodiode? 1 A) Emit light B) Detect light C) Amplify signals D) Store data 8. Which semiconductor device acts as a current-controlled device? 1 A) Diode B) BJT C) MOSFET D) Zener diode 9. What is the main function of a capacitor in a rectifier circuit? 1 A) Voltage regulation B) Current amplification C) Energy storage D) Signal filtering 10. What is the main principle behind the operation of a JFET? A) Bipolar junction B) Field effect C) Avalanche breakdown D) Tunneling effect

11. Which type of diode has a forward-biased voltage drop of approximately 0.7V?

C) LED

D) Photodiode

B) Schottky diode

1

12. What does MOSFET stand for?		1
A) Metal-Oxide Semiconductor Field-Effect Transistor  Transistor C) Metal-Silicon Field-Effect Transistor D) Mono-Silicon Oxide Transistor		et
13. Which semiconductor device is used for switching applications due to its fast switchi	ng spee	d?
A) LED B) BJT C) IGBT D) Zener diode	[	]
14. What is the primary function of an operational amplifier (Op-Amp) in microelectronic	c circui	its?
A) Voltage amplification B) Current amplification	1	]
C) Power amplification D) Energy storage		
15. What is the main advantage of using a Schottky diode compared to a standard PN jurdiode?	ection	]
A) Lower forward voltage drop B) Higher breakdown voltage		
C) Faster switching speed D) Larger capacitance		
16. Which of the following is NOT a type of semiconductor material?	1	]
A) Silicon B) Germanium C) Copper D) Gallium arsenide		
17. What is the primary function of a capacitor in a microelectronic circuit?	[	1
A) Energy conversion B) Voltage regulation C) Signal storage D) Current amplification	tion	
18. Which semiconductor device is commonly used as a voltage-controlled oscillator (V	CO)?[	]
A) BJT B) FET C) Schottky diode D) Varactor diode		
19. What is the main advantage of using a MEMS-based sensor over traditional sensors	? [	]
A) Higher cost B) Larger size C) Lower power consumption D) Mechanical flexion	ibility	e.
20. Which of the following materials is commonly used as an insulator in semiconducto	r device	es?
A) Silicon B) Copper C) Glass D) Aluminum	]	]

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#### Department of Electronics and Communication Engineering

Course Name: MicroelectronicsDevices Evaluation of the Value-Added Courses

Answer all the Questions Each Question Carry 1 Mark  Total Marks: 20M  Name of the Student G, ARUN H.T.No: 1636/ACYOMarks obtained:
1. What is the primary function of a PN junction diode?
A) Signal amplification B) Rectification C) Switching D) Oscillation
2. Which semiconductor material is used in an N-type semiconductor?
A) Silicon B) Germanium C) Boron D) Phosphorus
3. What does BJT stand for?
A) Bipolar Junction Transistor  B) Bi-directional Junction Transistor
C) Binary Junction Transistor  D) Base-Junction Transistor
4. What type of diode is used as a voltage regulator?
A) Zener diode B) LED C) Photodiode D) Schottky diode
5. Which FET configuration has the highest input impedance?
A) Common source B) Common drain C) Common gate D) Common collector
6. What is the main advantage of CMOS technology over other IC fabrication techniques?[ 1]
A) Higher speed B) Lower power consumption C) Larger die size D) Higher cost
7. What is the primary purpose of a photodiode?
A) Emit light B) Detect light C) Amplify signals D) Store data
8. Which semiconductor device acts as a current-controlled device?  A) Diode B) BJT C) MOSFET D) Zener diode
9. What is the main function of a capacitor in a rectifier circuit?

A) Voltage regulation

B) Current amplification

C) Energy storage

D) Signal filtering

10. What is the main principle behind the operation of a JFET?

NARASARAOPET-522 601, Gurtur 10

A) Bipolar junction

B) Field effect

C) Avalanche breakdown

D) Tunneling effect

11. Which type of diode has a forward-biased voltage drop of approximately 0.7V? A) Zener diode

B) Schottky diode

C) LED

D) Photodiode

12. What does MOSFET stand for?	1	[B	]
A) Metal-Oxide Semiconductor Field-Effect Transistor  Transistor C) Metal-Silicon Field-Effect Transistor D) Mono-Silicon Oxide	Field	l-Effect	
13. Which semiconductor device is used for switching applications due to its fast sw	vitchii	ng spee	d?
A) LED B) BJT C) IGBT D) Zener diode	1	10	1.
14. What is the primary function of an operational amplifier (Op-Amp) in microelec	etronic	c circui	ts?
A) Voltage amplification B) Current amplification	(	17	]
C) Power amplification D) Energy storage			1
15. What is the main advantage of using a Schottky diode compared to a standard P diode?	'N jun	ction 1 C	]
A) Lower forward voltage drop B) Higher breakdown voltage			
C) Faster switching speed D) Larger capacitance			
16. Which of the following is NOT a type of semiconductor material?	(	/[ C	]
A) Silicon B) Germanium C) Copper D) Gallium arsenide			7. · ·
17. What is the primary function of a capacitor in a microelectronic circuit?		10	]
A) Energy conversion B) Voltage regulation C) Signal storage D) Current amp	lificat	tion	1
18. Which semiconductor device is commonly used as a voltage-controlled oscillate	or (V	co):[[	)]
A) BJT B) FET C) Schottky diode D) Varactor diode			/
19. What is the main advantage of using a MEMS-based sensor over traditional sen	isors?	M	1
A) Higher cost B) Larger size C) Lower power consumption D) Mechanical	flexib	oility	
20. Which of the following materials is commonly used as an insulator in semiconor	luctor	device	es?
A) Silicon B) Copper C) Glass D) Aluminum		1 C	_ ]

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A) Zener diode

B) Schottky diode

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#### **Department of Electronics and Communication Engineering**

**Course Name:** MicroelectronicsDevices Evaluation of the Value-Added Courses

Answer all the Questions Each Question Carry 1 Mark

Name of the Student B FSWIR H.T.No: 16,5E140 Marks obtained:	
1. What is the primary function of a PN junction diode?	31
A) Signal amplification B) Rectification C) Switching D) Oscillation	
2. Which semiconductor material is used in an N-type semiconductor?	0.1
A) Silicon B) Germanium C) Boron D) Phosphorus	
3. What does BJT stand for?	R) I
A) Bipolar Junction Transistor B) Bi-directional Junction Transistor	
C) Binary Junction Transistor D) Base-Junction Transistor	,
4. What type of diode is used as a voltage regulator?	$\mathcal{C}^{\chi}$
A) Zener diode B) LED C) Photodiode D) Schottky diode	N.
5. Which FET configuration has the highest input impedance?	61
A) Common source B) Common drain C) Common gate D) Common collector	
6. What is the main advantage of CMOS technology over other IC fabrication techniques?[	BA
A) Higher speed B) Lower power consumption C) Larger die size D) Higher	er cost
7. What is the primary purpose of a photodiode?	RY
A) Emit light B) Detect light C) Amplify signals D) Store data	2 159 -
8. Which semiconductor device acts as a current-controlled device?	R
A) Diode B) BJT C) MOSFET D) Zener diode	
9. What is the main function of a capacitor in a rectifier circuit?	DI
A) Voltage regulation B) Current amplification	
C) Energy storage D) Signal filtering ESWAR COLLEGE OF ENGINE	RING
10. What is the main principle behind the operation of a JFET? NARASARAOPET-522 601, Guntu	108
A) Bipolar junction B) Field effect C) Avalanche breakdown D) Tunneling et	ffect
11. Which type of diode has a forward-biased voltage drop of approximately 0.7V?	çi

C) LED

D) Photodiode

12. What does MOSFET stand for?	4	
- 2) 1120 000 0 000 0 0000 0 0000 0 0000 0 0000 0	B) Mono-Oxide Silicon Field D) Mono-Silicon Oxide Tran	
13. Which semiconductor device is used for switching applic	cations due to its fast switchi	ng speed?
A) LED B) BJT C) IGBT D) Zener diode	, j	191
14. What is the primary function of an operational amplifier	(Op-Amp) in microelectroni	c circuits?
A) Voltage amplification B) Current amplification	on /	[ A ]
C) Power amplification D) Energy storage		
15. What is the main advantage of using a Schottky diode co diode?	ompared to a standard PN jun	iction [ ]
A) Lower forward voltage drop B) Higher break	kdown voltage	
C) Faster switching speed D) Larger capac	citance	
16. Which of the following is NOT a type of semiconductor	material?	$[ \ \ \ \ ]$
A) Silicon B) Germanium C) Copper l	D) Gallium arsenide	X
17. What is the primary function of a capacitor in a microele	ectronic circuit?	
A) Energy conversion B) Voltage regulation C) Signal storage	ge D) Current amplificat	tion ]
18. Which semiconductor device is commonly used as a volt	tage-controlled oscillator (Vo	CO)?[ <b>4</b> ]
A) BJT B) FET C) Schottky diode D) Vara	actor diode	
19. What is the main advantage of using a MEMS-based sen	sor over traditional sensors?	
A) Higher cost B) Larger size C) Lower power consumpt	tion D) Mechanical flexib	oility
20. Which of the following materials is commonly used as a	n insulator in semiconductor	devices?
A) Silicon B) Copper C) Glass D) Alur	minum	
		A 1

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#### **Department of Electronics and Communication Engineering**

#### **Marks Sheet**

#### 1 Week Add-On Course on "Microelectronics Devices"

Dates: 04-02-2019 to 08-02-2019.

		Dates: 04-02-2017 to 00 02	Marks
S.No		Name of the Student Signature	13
	10,1110 10 -	DASARI ADI LAKSHMI	13
	TUJLITIO 102	VEMULA ALEKHYA	14
3	TUJLITIO TO	THUMU ANURADHA	15
4	16JE1A0404	KOMMU ANUSHA	16
5	16JE1A0405	CHERUKULA ANUSHA	16
6	16JE1A0406	GUNDA ARUN KUMAR	17
7	16JE1A0407	TAPPETLA ASWANI	19
8	16JE1A0408	KANDULA BALA NAGENDRA KUMAR	13
9	16JE1A0409	CHINTA BHAVANI	14
10	16JE1A0410	BATTULA BHAVANI	15
11	16JE1A0411	SHAIK BIKARI	13 *
12	16JE1A0412	MUNTHA DEEPTHI	16
13	16JE1A0413	LOYA DHANA SEKHAR	18
14	16JE1A0414	ORSU DURGA PRASAD	15
15	16JE1A0415	BANDI ESWAR	16
16	16JE1A0416	MAILA ESWARAMMA	17
17	16JE1A0417	ALURI GANESH	17
18	16JE1A0418	PALEPU GAYATHRI	18
19	16JE1A0419	UPPALAPATI GEETHA PAVANI	13
20	16JE1A0420	SIVADI GOPI	14
21	16JE1A0422	DUDDU HEMA SRI	13
22	16JE1A0423	SHAIK IZADBASHA	14
23	16JE1A0424	JAFRIN SHAIK	13
24	16JE1A0425	GANAPAVARAPU JAN BABU	15
25	16JE1A042	6 SK JANI BASHA	15
26		7 MAKKENA JAYAPAUL	16
27		8 DARGA JHONY SHAHID	15
28		0 SHAIK KANDIPATI JAN SAIDA	

	4 CVD4 A 0 4 2 4	SHAIK KARIMULLA	12
	TO) BIII TO	SYED KARISHMA KAREEM	12
30	10,11110 101	PATAN KHAJA VALI	13
31	10,11110 100	SINDIRI LAKSHMI MANASA	14
32	10,1110101	THOTAPALLI LAKSHMI PATHI	15
33	TO DITTO TO	SEKHAR LALITHA	16
34	TOJETHO TO	DAVULURI LEELA UMAMAHESWARA RAO	15
35	10)2222		16
36	16JE1A0440	MUKKADALA LENIN	13
37	10,1110111	BOBBALA MADHURI	13
38	16JE1A0443	KOTHA MANOJ KUMAR	14
39	16JE1A0444	MEGHAVATHU MEENAKSHI MANI BAI	13
40	16JE1A0445	SYED MIRSHAD	14
41	16JE1A0446	SHAIK MOHAMMAD VALI	16
42	16JE1A0447	SHAIK MUBEEN KOUSAR	16
43	16JE1A0448	SHAIK NADIYA	15
44	16JE1A0450	MENTHULA NAGA LAKSHMI	13
45	16JE1A0451	ADDANKI NAGA TRIVENI	
46	16JE1A0452	POLISETTY NAGA VENKATA MOHANA SAI SESANK	13
47	16JE1A0453	LINGALA NAGAMOUNIKA	13
48	16JE1A0454	PASUPULETI NAGAVASU	14
49	16JE1A0455	GODUGUNURI NARENDRA REDDY	14
50	16JE1A0457	SHAIK PARVEEN BOBBY	13
51	16JE1A0458	JAVVAJI PAVAN KUMAR	13
52	16JE1A0459	GOLLA PAVAN KUMAR	14 *
53	16JE1A0460	KANYADHARA PAVAN KUMAR	14
54	16JE1A0462	SHAIK RAHEEMA	12
55	16JE1A0464	SHAIK RASOOL	12
56	16JE1A0465		12
57	16JE1A0467		13
58	16JE1A0469		14
59	16JE1A0470		13
60	16JE1A0471		16
61	16JE1A0472		16
62	16JE1A0473		13
63	16JE1A0474		16
64	16JE1A0475	THE CASE ALCOURAGE	15
65	16JE1A0476		13
	16JE1A0477		13
66	16JE1A0477		14
67		THE COLUMN	13

69	16JE1A0480	BATTULA SIVA PARVATHI	13
70		RAVULA SIVA SATYANARAYANA	13
71		YAGANTI SIVA TEJA	14
72		VIRIGINENI SIVAKALYANI	13
73	16JE1A0484	DRONADULA SIVASANKAR REDDY	13
74	16JE1A0485	AMBATI SOWJANYA	14
75	16JE1A0487	SIKHAKOLLI SRI GIRIDHARA VENKATESH	13
76		PALAPARTHI SRI KAMALA	16
77	16JE1A0489	DEVARAPU SUNEEL	15
78	16JE1A0490	GOWDAPERI SUNEETHA	14
79	16JE1A0491	SYED SUNERIA	13
80	16JE1A0492	SHAIK THOTA DARIYAVALI	14
81		TIRUMALASETTY UMA BHAVANI	13
82	16JE1A0494	KONDAPATI VAASAVI	16
83	16JE1A0495	PALLAPATI VAMSI SAI	16
84		GARLAPATI VAMSI VARDHINI	16
85	16JE1A0498	BELLAMKONDA VEERA NARAYANA	4713
86	16JE1A0499	RAVIPATI VENKATA CHAKRADHAR	13
87	16JE1A04A0	KOTHA VENKATA KARTHIK	14
88	16JE1A04A1	YECHURI VENKATA NAGA GANGA AKHIL	13
89	16JE1A04A2	KANIGIRI VENKATA NARASIMHA AKHILA	12
90	16JE1A04A3	UPPALAPATI VENKATESH	12
91	16JE1A04A4	MAADISETTY VIJAY SANKAR	13
92	16JE1A04A5	KOMARA VIJAYA DHARANI	12
93	16JE1A04A6	KOLLA VIJAYA NAGENDRA RAO	14
94	16JE1A04A7	TUMMALACHARLA VINAY KUMAR	16
95	16JE1A04A8	TIRUMALASETTY VINEETHA	12
96	16JE1A04A9	SHAIK AYESHA	13
97	16JE1A04B0	PATTAN AYESHAA PARVEEN	14
98	16JE1A04B1	NANDAM PRAMEELA	13
99	16JE1A04B2	MANCHALA PAVANI	13
100	17JE5A0401	KAYALA K V N RAJ KUMAR	14
101	17JE5A0402	PARLAPALLI SRICHANDANA	13
102	15A45A0405	KORAMPALLI TRIVENI (Trasfer from Litam)	12

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#### Department of Electronics and Communication Engineering

#### Summary of the Program

Course Name: Microelectronics Devices

The primary objective of this 1-week value-added course is to provide students with comprehensive knowledge and practical skills in microelectronic devices. The course aims to bridge the gap between theoretical concepts and real-world applications, making students industry-ready and enhancing their career prospects in the field of Electronics and Communication Engineering. 102 (III B.Tech II Sem ECE-A and B) number of students participated.

#### **Evaluation Criteria for Certification:**

- Marks: Students were required to secure a minimum of 60% marks in the evaluation.
- Attendance: A minimum of 80% attendance was mandatory for certification.

#### Objective of the Course:

- To provide participants with a comprehensive understanding of the fundamental principles, operation, and applications of microelectronic devices.
- To equip participants with practical skills in analyzing and designing microelectronic circuits and systems, enhancing their ability to implement and troubleshoot electronic devices.
- To foster critical thinking and problem-solving abilities by exploring advanced topics in microelectronics, such as integrated circuits, emerging technologies, and their impact on modern electronic systems.

#### Course Delivery Method:

- The course consisted of lectures, and practical sessions, conducted SK Jilani Noor Basha,
   Assistant Professor, Department of ECE, RISE Institute of Gandhi, Ongole
- Interactive sessions encouraged active participation and engagement from the students to
  ensure effective learning and understanding of the concepts.

#### Benefits for Students:

Enhanced Skillset: Students will acquire specialized knowledge in microelectronics, equipping them with the skills required to design, analyze, and troubleshoot electronic circuits and systems.

Career Advancement: With a solid foundation in microelectronic devices and systems, students will be better positioned to pursue careers in industries such as semiconductor manufacturing, electronics design, and research and development.

Hands-on Experience: Through practical exercises and projects, students will gain valuable hands-on experience, enhancing their problem-solving, analytical, and teamwork skills.

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Innovation and Research Opportunities: The course will inspire students to explore emerging trends and technologies in microelectronics, fostering a culture of innovation and encouraging them to contribute to advancements in the field.

In conclusion, the Microelectronics Devices course offers students a comprehensive understanding of microelectronic principles and practical skills essential for modern electronic design. Through hands-on experience and exposure to emerging technologies, students are equipped to innovate and excel in diverse electronic industries. This program not only enhances students' technical proficiency but also fosters critical thinking and prepares them for rewarding careers in the rapidly evolving field of microelectronics.

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