



ESTD : 2007

# Sri Indu Institute of Engineering and Technology (Autonomous)

(Formerly RVR Institute of Engineering & Technology )

**An Autonomous Institution Under UGC**

NAAC Accredited. Recognized Under 2(f) of UGC Act 1956

EAMCET CODE: INDI

Approved by AICTE, New Delhi, & Affiliated to JNTUH, Hyderabad.

JNTUH CODE: X3



## COURSE FILE

ON

## ELEMENTS OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Course Code - EC101ES**

**I B. Tech Semester-I  
A.Y. 2022-2023**

Prepared by

**Dr. S.SURESH**

**Professor**

Head of the Department  
Department of H&S  
SRI INDU INSTITUTE OF ENGG & TECH  
Sheriguda(VIII) Ibrahimpatnam (M) R.R. Dist-501 510

PRINCIPAL  
Sri Indu Institute of Engineering & Tech.  
Sheriguda(VIII), Ibrahimpatnam  
R.R. Dist. Telangana-501 510.



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JNTUH CODE: X3

<b>Name of the Physical laboratory:</b>	ELEMENTS OF ELECTRONICS AND COMMUNICATION ENGINEERING
<b>Course code</b>	EC101ES
<b>Room No</b>	A-113
<b>Name of the lab incharge</b>	Mrs. A. SINDHUJA
<b>Name of the faculty incharge</b>	Dr. S. SURESH

## Index of Lab File

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## INSTITUTE VISION & MISSION

### Vision:

To become a premier institute of academic excellence by providing the world class education that transforms individuals into high intellectuals, by evolving them as empathetic and responsible citizens through continuous improvement.

### Mission:

- **IM1:** To offer outcome-based education and enhancement of technical and practical skills.
- **IM2:** To Continuous assess of teaching-learning process through institute-industry collaboration.
- **IM3:** To be a centre of excellence for innovative and emerging fields in technology development with state-of-art facilities to faculty and students' fraternity.
- **IM4:** To Create an enterprising environment to ensure culture, ethics and social responsibility among the stakeholders.

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# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

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Khalsa Ibrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana – 501 510

Website: <https://siiet.ac.in/>

## PROGRAMME OUTCOMES

**PO1: Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem Analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3: Design / Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4: Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5: Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6: The Engineer & Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7: Environment & Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9: Individual & Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instructions.

**PO11: Project Management & Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-Long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Head of the Department  
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## SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

### B.Tech. in ELECTRONICS AND COMMUNICATION ENGINEERING

### COURSE STRUCTURE

### I YEAR SYLLABUS (BR22 Regulations)

Applicable from Academic Year: 2022-23 Batch

#### I Year I Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1.	MA101BS	Matrices and Calculus	3	1	0	4
2.	AP102BS	Applied Physics	3	1	0	4
3.	CS102ES	C Programming for Engineers	3	0	0	3
4.	ME102ES	Engineering Workshop	0	1	3	2.5
5.	EN104HS	English for Skill Enhancement	2	0	0	2
6.	EC101ES	Elements of Electronics and Communication Engineering	0	0	2	1
7.	AP105BS	Applied Physics Laboratory	0	0	3	1.5
8.	EN107HS	English Language and Communication Skills Laboratory	0	0	2	1
9.	CS105ES	C Programming for Engineers Laboratory	0	0	2	1
10.	*MC101ES	Environmental Science	3	0	0	0
11.		Induction Programme				
<b>Total</b>			<b>14</b>	<b>3</b>	<b>12</b>	<b>20</b>

#### I Year II Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1.	MA201BS	Ordinary Differential Equations and Vector Calculus	3	1	0	4
2.	CH203BS	Engineering Chemistry	3	1	0	4
3.	ME201ES	Computer Aided Engineering Graphics	1	0	4	3
4.	EE201ES	Basic Electrical Engineering	2	0	0	2
5.	EC201ES	Electronic Devices and Circuits	2	0	0	2
6.	CS202ES	Applied Python Programming Laboratory	0	1	2	2
7.	CH206BS	Engineering Chemistry Laboratory	0	0	2	1
8.	EE202ES	Basic Electrical Engineering Laboratory	0	0	2	1
9.	EC202ES	Electronic Devices and Circuits Laboratory	0	0	2	1
<b>Total</b>			<b>11</b>	<b>3</b>	<b>12</b>	<b>20</b>



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## ELEMENTS OF ELECTRONICS AND COMMUNICATION ENGINEERING

(Course Code: EC101ES)

**B.Tech. I Year I Sem.**

L	T	P	C
0	0	2	1

**Course Outcomes:** Student will be able to:

1. Identify the different components used for electronics applications
2. Measure different parameters using various measuring instruments
3. Distinguish various signals used for analog and digital communications

**List of experiments:**

1. Understand the significance of Electronics and communications subjects
2. Identify the different passive and active components
3. Color code of resistors, finding the types and values of capacitors
4. Measure the voltage and current using voltmeter and ammeter
5. Measure the voltage, current with Multimeter and study the other measurements using Multimeter
6. Study the CRO and measure the frequency and phase of given signal
7. Draw the various Lissajous figures using CRO
8. Study the function generator for various signal generations
9. Study of Spectrum analyzer and measure the spectrum
10. Operate Regulated power supply for different supply voltages
11. Study the various gates module and write down the truth table of them
12. Identify various Digital and Analog ICs
13. Observe the various types of modulated signals.
14. Know the available softwares: PSpice, Multisim & MATLAB etc. for Electronics and Communication applications.



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## COURSE OUTCOMES

**Course Name:** ELEMENTS OF ELECTRONICS AND COMMUNICATION ENGINEERING (C116)

At the End of the course, student will be able to

CO	DESCRIPTION
C116.1	Understand the subjects of Electronics and Communication Engineering and Identify Active and Passive components, Digital ICs, Analog ICs(Knowledge)
C116.2	Measure Resistance of Resistors and different parameters using various measuring instruments. (Evaluation)
C116.3	Generate Various signals using Function Generator. (Application)
C116.4	Determine Spectrum of signal by using Spectrum analyzer (Evaluation)
C116.5	Write truth tables of various logic gates (Knowledge)
C116.6	Distinguish various signals used for analog and digital communications and know various softwares(Analysis)

## COs and POs & PSOs Mapping

Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
C116.1	3	2	-	1	1	-	-	-	-	-	-	1	-	-
C116.2	3	2	-	1	1	-	-	-	1	-	1	1	-	-
C116.3	2	2	1	1	1	-	-	-	3	-	3	1	-	-
C116.4	2	3	-	1	1	-	-	-	-	-	3	2	-	-
C116.5	3	2	1	1	1	-	-	-	3	-	-	2	-	-
C116.6	3	2	-	1	1	-	-	-	1	-	2	2	-	-
Avg	2.6	2.16	1	1	1	-	-	-	2	-	2.25	1.5	-	-

3-High

2-Medium

1-Low



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## LIST OF EXPERIMENTS AND THEIR CO, PO MAPPING

S. No	Name of The Experiment	CO	PO
1	Understand the significance of Electronics and communications subjects	1	1, 2, 4, 5, 12
2	Identify the different passive and active components	1	1, 2, 4, 5, 12
3	Color code of resistors, finding the types and values of capacitors	2	1, 2, 4, 5, 9, 11, 12
4	Measure the voltage and current using voltmeter and ammeter	2	1, 2, 4, 5, 9, 11, 12
5	Measure the voltage, current with Multimeter and study the other measurements using Multimeter	2	1, 2, 4, 5, 9, 11, 12
6	Study the CRO and measure the frequency and phase of given signal	3	1, 2,3, 4, 5, 9, 11, 12
7	Draw the various Lissajous figures using CRO	3	1, 2,3, 4, 5, 9, 11, 12
8	Study the function generator for various signal generations	3	1, 2,3, 4, 5, 9, 11, 12
9	Study of Spectrum analyzer and measure the spectrum	4	1, 2, 4, 5, 11, 12
10	Operate Regulated power supply for different supply voltages	4	1, 2, 4, 5, 11, 12
11	Study the various gates module and write down the truth table of them	5	1, 2,3, 4, 5, 9, 12
12	Identify various Digital and Analog ICs	1	1, 2, 4, 5, 12
13	Observe the various types of modulated signals	6	1, 2, 4, 5, 9, 11, 12
14	Know the available softwares: PSpice, Multisim & MATLAB etc. for Electronics and Communication applications	6	1, 2, 4, 5, 9, 11, 12





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<https://siiet.ac.in/>

Class: ECE

Semester: I

W.E.F: 14-11-2022

LH: -D-209

	I 9:40- 10:30	II 10:30 - 11:20	III 11:20- 12:10	12:10- 12.45	IV 12.45- 1.35	V 1.35- 2.25	VI 2.25- 3.15	VII 3.15-4.00
MON	CPE	ES	M&C	<b>L U N C H</b>	AP	ENG	M&C	LIB
TUE	AP	M&C	ENG		CPE LAB			PPS(T)/AP(T)
WED	EWS/ELCS LAB				M&C	AP	CPE	ENG(T)/M&C(T)
THU	AP LAB				CPE	ENG	ES	AP(T)/CPE(T)
FRI	AP	CPE	ES		EWS/ELCS LAB			M&C(T)/ENG(T)
SAT	ENG	E-ECE LAB			CPE	M&C	AP	E-ECE(T)

Course Code	Course Name	Name of the Faculty	Course Code	Course Name	Name of the Faculty
MA101BS	Matrices and Calculus	T.THIRUPATHI REDDY	ME102ES	EWS LAB	M.V.B. KALYAN/B.SRINU NAIK
AP102BS	Applied Physics	B.SANTHI	AP105BS	Applied Physics - Lab	B.SANTHI/M.JANAIAH/ R. YADAGIRI RAO /M.MANISHA
CS102ES	C Programming for Engineers	B.RAJASHWARI	CS105ES	C Programming for Engineers Lab	B.RAJASHWARI/ D.SWAPNA
EN104HS	English for Skill Enhancement	G.VENKAT REDDY	EN107HS	English Language and Communication Skills Lab	G.VENKAT REDDY/E.PRARTHANA
MC101ES	Environmental Sciences	V.MOUNIKA	EC101ES	Elements of Electronics and Communication Engineering	Dr.S.SURESH/Dr.K.SRINIVAS A REDDY

*B. Santhi*  
Class In-Charge

*Ch. Saritha*  
Time Table Coordinator



*[Signature]*  
Head of The Department  
**Dr. R. YADAGIRI RAO**  
M.Sc., B.Ed., M.Tech(CSE), Ph.D.  
Head of the Department  
Department of H&S  
SRI INDU INSTITUTE OF ENGG & TECH  
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**X3**

**BR22**

## Lab Internal-I Question paper

Year & Semester: I-II

Branch: ECE

Subject Name: Elements of ECE Lab

Faculty Name: Dr.S.SURESH

### S. No.

### QUESTIONS

1. Identify the different passive and active components?
2. Find the Color code of Various resistors & their types?
3. Measure the voltage and current using voltmeter and ammeter?
4. Measure the voltage, current with Multimeter and study the other measurements using Multimeter?
5. Study the CRO and measure the frequency and phase of given signal?
6. Draw the various Lissajous figures using CRO?





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BR22

## TIME TABLE

I B.TECH I SEMESTER - I-MID TERM EXAMINATIONS DECEMBER-2022/JANUARY-2023  
(for the Admitted Batch 2022-23, BR22 Regulations)

TIME:- FN: 10.00 AM TO 12.00 Noon

BRANCH	DATE AND DAY				
	29-12-2022 THURSDAY	30-12-2022 FRIDAY	31-12-2022 SATURDAY	02-01-2023 MONDAY	03-01-2023 TUESDAY
CIVIL ENGINEERING (01-C E)	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	C Programming and Data Structures (CS101ES)	English for Skill Enhancement (EC101ES)	Elements of Civil Engineering (CE101ES)
ELECTRONICS & COMMUNICATIONS ENGINEERING (04- ECE)	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	C Programming for Engineers (CS102ES)	English for Skill Enhancement (EC101ES)	Elements of Electronics and Communication Engineering (EC101ES)
COMPUTER SCIENCE & ENGINEERING (05- CSE)	Matrices and Calculus (MA101BS)	Engineering Chemistry (CH103BS)	Programming for Problem Solving (CS103ES)	Basic Electrical Engineering (EE101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY) (62-CSE(CS))	Matrices and Calculus (MA101BS)	Engineering Chemistry (CH103BS)	Programming for Problem Solving (CS103ES)	Basic Electrical Engineering (EE101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING) (66-CSE(AI&ML))	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	Programming for Problem Solving (CS103ES)	English for Skill Enhancement (EC101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (DATASCIENCE) (67-CSE(DS))	Matrices and Calculus (MA101BS)	Engineering Chemistry (CH103BS)	Programming for Problem Solving (CS103ES)	Basic Electrical Engineering (EE101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (IOT) (69-CSE(IOT))	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	Programming for Problem Solving (CS103ES)	English for Skill Enhancement (EC101ES)	Elements of Computer Science & Engineering (CS106ES)
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE (72- AIDS)	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	Programming for Problem Solving (CS103ES)	English for Skill Enhancement (EC101ES)	Elements of Computer Science & Engineering (CS106ES)

*Kotipati*  
ACE



*[Signature]*  
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X3

BR22

## TIME TABLE

I B.TECH I SEMESTER - II-MID TERM EXAMINATIONS MARCH-2023  
 (for the Admitted Batch 2022-23, BR22 Regulations)

TIME:- FN: 10.00 AM TO 12.00 Noon

BRANCH	DATE AND DAY				
	03-03-2023 FRIDAY	04-03-2023 SATURDAY	06-03-2023 MONDAY	08-03-2023 WEDNESDAY	09-03-2023 THURSDAY
CIVIL ENGINEERING (01-C E)	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	C Programming and Data Structures (CS101ES)	English for Skill Enhancement (EN104HS)	Elements of Civil Engineering (CE101ES)
ELECTRONICS & COMMUNICATIONS ENGINEERING (04- ECE)	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	C Programming for Engineers (CS102ES)	English for Skill Enhancement (EN104HS)	Elements of Electronics and Communication Engineering (EC101ES)
COMPUTER SCIENCE & ENGINEERING (05- CSE)	Matrices and Calculus (MA101BS)	Engineering Chemistry (CH103BS)	Programming for Problem Solving (CS103ES)	Basic Electrical Engineering (EE101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY) (62-CSE(CS))	Matrices and Calculus (MA101BS)	Engineering Chemistry (CH103BS)	Programming for Problem Solving (CS103ES)	Basic Electrical Engineering (EE101ES)	Elements of Computer Science & Engineering (CS106ES)
COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING) (66-CSE(AI&ML))	Matrices and Calculus (MA101BS)	Applied Physics (AP102BS)	Programming for Problem Solving (CS103ES)	English for Skill Enhancement (EN104HS)	Elements of Computer Science & Engineering (CS106ES)
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*K. K. Reddy*  
 ACE

ADDITIONAL CONTROLLER OF EXAMINATIONS  
 Sri Indu Institute of Engineering and Technology  
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*K. K. Reddy*

CONTROLLER OF EXAMINATIONS

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*[Signature]*  
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Website: <https://silet.ac.in/>

## LAB OCCUPANCY CHART

### ELECTRONIC DEVICES AND CIRCUITS LAB

A.Y : 2022-23

SEM-I

	I 9:40-10:30	II 10:30 -11:20	III 11:20-12:10	IV 12:10-1:00	1:00-1:30	V 1:30-2:20	VI 2:20-3:10	VII 3:10-4:00
MON			EDC Lab II ECE-A		L U N C H			
TUE							EDC Lab II ECE-B	
WED	MAINTENANCE							
THU								
FRI			EDC Lab II ECE-B					
SAT		EECE I ECE						EDC Lab II ECE-A

  
LAB INCHARGE

  
HOD

**Head of the Department**  
Electronics and Communication Engg. Dept, Indu Institute of Engineering & Tech  
**SRI INDU INSTITUTE OF ENGG & TECH** Sheriguda(V), Ibrahimpatnam(M),  
Sheriguda(V), Ibrahimpatnam(M), R.R.Dist-501 510 R.R. Dist. Telangana -501 510

  
PRINCIPAL

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## ELEMENTS OF ECE LAB

### Do's & Don'ts

- All students must observe the dress code while in the laboratory
- Foods, drinks and smoking are NOT allowed
- All bags must be left at the indicated place.
- The lab time table must be strictly followed.
- Be PUNCTUAL for your laboratory session.
- Experiment must be completed within the given time.
- Noise must be kept to minimum.
- Workspace must be kept clean and tidy at all time.
- Handle all apparatus with care.
- All students are liable for any damage to equipment due to their own negligence.
- All equipment, apparatus, tools and components must be RETURNED to their original place after use.
- Students are strictly PROHIBITED from taking out any items from the laboratory.
- Report immediately to the lab supervisor if any injury occurred.
- Report immediately to the lab supervisor if any damages to equipment.

### BEFORE LEAVING LAB

- Place the stools under the lab bench.
- Turn off the power to all instruments.
- Please check the laboratory notice board regularly for updates.

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Khalsa Ibrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana-501510

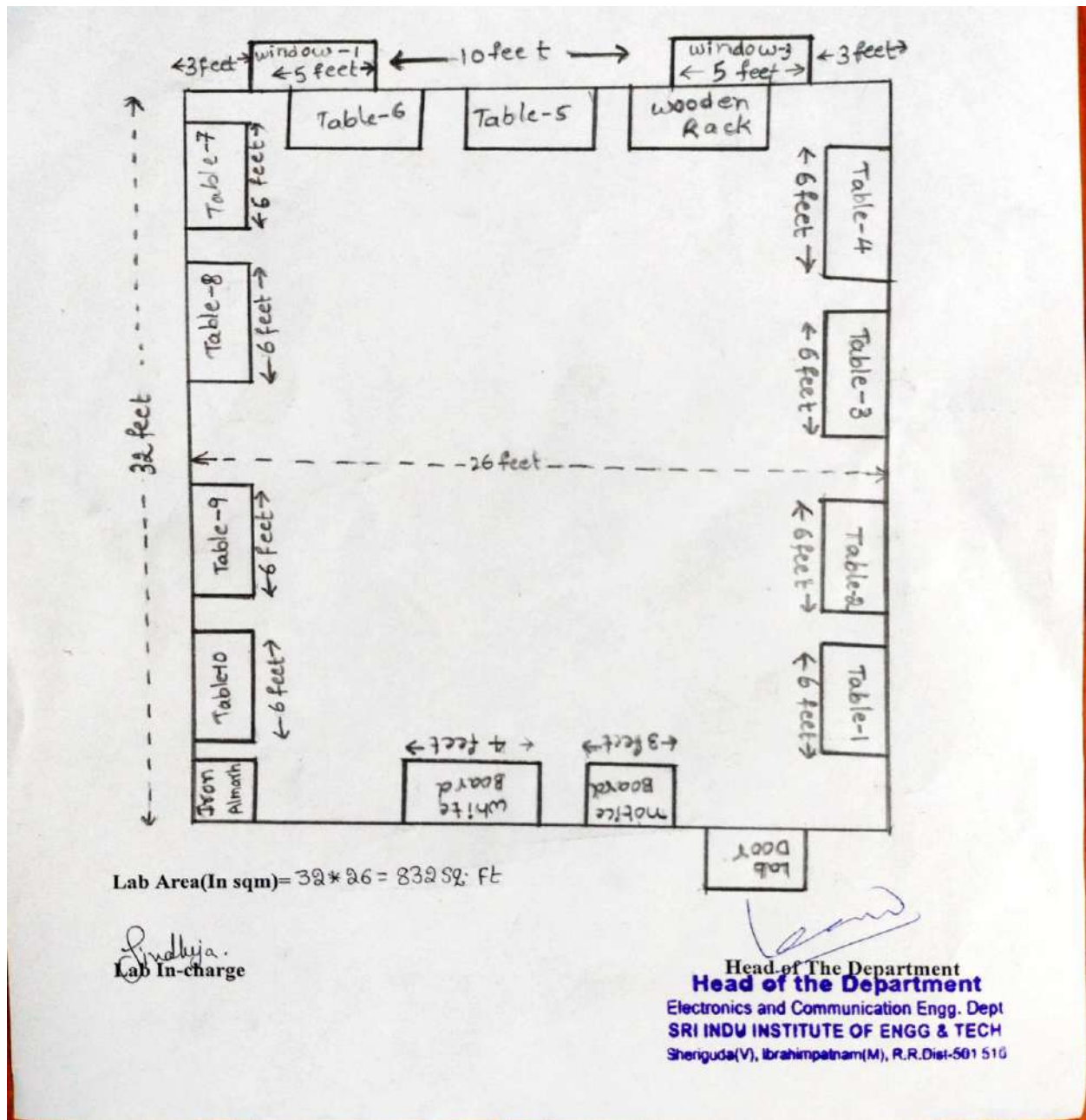
Website: <https://siiet.ac.in/>

## PHYSICAL LAB FLOOR PLAN

ROOM NO: A-113

BLOCK: A

FLOOR: I





# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution under UGC)

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Khalsa Ibrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana-501510

Website: <https://siiet.ac.in/>

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## LAB MANUAL LINK

[https://drive.google.com/file/d/1fVoEk1KOMZkUb3EsdY3xhqvSxRFC\\_FnU/view?usp=sharing](https://drive.google.com/file/d/1fVoEk1KOMZkUb3EsdY3xhqvSxRFC_FnU/view?usp=sharing)

**SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY**

Department of Humanities and Sciences

**Course Outcome Attainment (Internal Examination-1)**

Name of the faculty : Dr.S.Suresh

Academic Year: 2022 - 23

Branch &amp; Section: ECE

Examination: LAB INTERNAL-I

Lab Course Name: ELEMENTS OF ECE

Year/semester I/I

S.No	HT No.	R+O+A	V+V	E+E+R	PPT
<b>Max. Marks ==&gt;</b>		<b>10</b>	<b>10</b>	<b>15</b>	<b>15</b>
1	22X31A0401	9	9	13	14
2	22X31A0402	9	9	14	14
3	22X31A0403	9	9	13	14
4	22X31A0404	10	10	14	14
5	22X31A0405	8	9	15	14
6	22X31A0406	9	9	13	14
7	22X31A0407	7	8	12	13
8	22X31A0408	8	9	15	14
9	22X31A0409	10	10	14	15
10	22X31A0410	10	10	14	14
11	22X31A0411	10	9	15	14
12	22X31A0412	9	10	15	15
13	22X31A0413	9	9	14	14
14	22X31A0414	8	10	15	14
15	22X31A0415	10	9	15	14
16	22X31A0416	9	9	14	14
17	22X31A0417	9	9	13	14
18	22X31A0418	8	9	15	14
19	22X31A0419	9	8	14	15
20	22X31A0420	9	9	13	14
21	22X31A0421	8	9	13	15
22	22X31A0422	9	9	13	14
23	22X31A0423	9	9	14	14
24	22X31A0424	7	8	12	13
25	22X31A0425	7	8	12	13
26	22X31A0426	9	9	14	14
27	22X31A0427	9	9	13	14
28	22X31A0428	6	8	13	13
29	22X31A0429	10	10	14	14
30	22X31A0430	7	8	12	13
31	22X31A0431	7	8	13	13
32	22X31A0432	8	9	12	13
33	22X31A0433	9	9	13	14
34	22X31A0434	10	10	15	14
35	22X31A0435	8	9	15	14
36	22X31A0436	10	10	14	14
37	22X31A0437	A	A	A	A
38	22X31A0438	A	A	A	A
39	22X31A0439	10	10	14	14
40	22X31A0440	10	9	14	14
41	22X31A0441	A	A	A	A
42	22X31A0442	9	9	14	15
43	22X31A0443	8	9	15	14
44	22X31A0444	9	9	13	14
45	22X31A0445	10	10	14	14
46	22X31A0446	9	10	15	15
47	22X31A0447	10	9	14	14

48	22X31A0448	8	9	15	14
49	22X31A0449	10	9	15	14
50	22X31A0450	9	9	13	14
51	22X31A0451	8	9	14	14
52	22X31A0452	10	9	14	14
53	22X31A0453	9	9	14	14
54	22X31A0454	10	10	14	14
55	22X31A0455	10	10	15	15
56	22X31A0456	9	9	13	14
57	22X31A0457	9	9	14	14
58	22X31A0458	10	9	15	14
59	22X31A0459	8	9	15	14
60	22X31A0460	7	8	12	13
61	22X31A0461	10	10	14	14
62	22X31A0462	10	9	14	14
63	22X31A0463	8	9	13	14
64	22X31A0464	9	9	14	14
Target set by the faculty /		6.00	6.00	9.00	9.00
performed above the		61	61	61	61
number of students		64	64	64	64
Percentage of students		95%	95%	95%	95%
scored more than target					

**CO Mapping with Exam Questions:**

CO - 1	Y	Y	Y	Y
CO - 2	Y	Y	Y	Y
CO - 3	Y	Y	Y	Y
CO - 4				
CO - 5				
CO - 6				

% Students Scored	95%	95%	95%
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**CO Attainment based on Exam Questions:**

CO - 1	95%	95%	95%	95%
CO - 2	95%	95%	95%	95%
CO - 3	95%	95%	95%	95%
CO - 4				
CO - 5				
CO - 6				
CO	<b>Intrnal practical</b>	<b>E+E+R</b>	<b>Overall</b>	<b>Level</b>
CO-1	95%	95%	95%	3.00
CO-2	95%	95%	95%	3.00
CO-3	95%	95%	95%	3.00
CO-4				
CO-5				
CO-6				

<b>Attainment Level</b>	
1	40%
2	50%
3	60%

Attainment (Internal 1 Examination) =

**3.00**

**NOTE:**

**R+O+A : RECORD+OBSERVATION+ATTANDANCE**

**V+V: VIVA VOICE**

**E+E+R:EXPERIMENT WRITE UP+EXECUTION+RESULT**

**SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY**



Department of Humanities and Sciences

**Course Outcome Attainment (Internal Examination-2)**

Name of the faculty : Dr.S.Suresh

Academic Year: 2022 - 23

Branch & Section: ECE

Examination: LAB INTERNAL-II

Lab Course Name: ELEMENTS OF ECE

Year/semester I/I

S.No	HT No.	R+O+A	V+V	E+E+R	PPT
<b>Max. Marks ==&gt;</b>		<b>10</b>	<b>10</b>	<b>15</b>	<b>15</b>
1	22X31A040	8	9	14	13
2	22X31A040	6	5	12	12
3	22X31A040	9	9	14	13
4	22X31A040	8	7	12	11
5	22X31A040	10	9	14	13
6	22X31A040	6	5	10	9
7	22X31A040	10	9	14	13
8	22X31A040	9	9	14	13
9	22X31A040	8	9	14	13
10	22X31A041	7	8	14	14
11	22X31A041	10	9	14	13
12	22X31A041	6	5	11	12
13	22X31A041	8	9	12	11
14	22X31A041	9	9	15	15
15	22X31A041	6	5	11	11
16	22X31A041	6	5	11	12
17	22X31A041	8	5	9	6
18	22X31A041	8	9	14	13
19	22X31A041	8	9	12	11
20	22X31A042	6	5	12	12
21	22X31A042	10	9	14	13
22	22X31A042	A	A	A	A
23	22X31A042	6	5	11	11
24	22X31A042	8	6	9	6
25	22X31A042	9	9	14	13
26	22X31A042	6	6	10	9
27	22X31A042	9	9	15	13
28	22X31A042	6	5	12	12
29	22X31A042	9	9	15	15
30	22X31A043	6	5	11	12
31	22X31A043	8	5	8	6
32	22X31A043	6	5	11	11
33	22X31A043	8	9	12	11
34	22X31A043	8	9	14	13
35	22X31A043	9	9	12	13
36	22X31A043	7	9	12	11
37	22X31A043	A	A	A	A
38	22X31A043	7	9	11	11
39	22X31A043	9	9	11	13
40	22X31A044	6	5	11	12
41	22X31A044	10	9	14	13
42	22X31A044	9	8	12	13
43	22X31A044	9	9	12	11
44	22X31A044	7	9	11	11
45	22X31A044	8	9	12	11

46	22X31A044	7	9	11	11
47	22X31A044	9	8	12	13
48	22X31A044	8	9	14	13
49	22X31A044	8	9	12	11
50	22X31A045	9	8	11	13
51	22X31A045	9	8	10	13
52	22X31A045	6	5	11	11
53	22X31A045	8	9	14	13
54	22X31A045	8	9	12	12
55	22X31A045	9	8	12	13
56	22X31A045	7	9	12	11
57	22X31A045	10	10	14	14
58	22X31A045	7	8	12	13
59	22X31A045	9	8	11	13
60	22X31A046	6	5	9	10
61	22X31A046	7	9	12	11
62	22X31A046 2	7	8	12	13
63	22X31A046 3	9	8	11	13
64	22X31A046	6	5	11	10
Target set by the		6.00	6.00	9.00	9.00
Number of students performed above the		62	46	61	59
Number of students attempted		64	64	64	64
Percentage of students scored more than target		97%	72%	95%	92%

**CO Mapping with Exam Questions:**

CO - 1				
CO - 2				
CO - 3				
CO - 4	Y	Y	Y	Y
CO - 5	Y	Y	Y	Y
CO - 6	Y	Y	Y	Y

% Students Scored	97%	72%	95%	92%
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**CO Attainment based on Exam Questions:**

CO - 1					
CO - 2					
CO - 3					
CO - 4	97%	72%	95%	95%	
CO - 5	97%	72%	95%	95%	
CO - 6	97%	72%	95%	95%	
CO	<b>Intrnal practical</b>	<b>E+E+R</b>	<b>ppt</b>	<b>Overall</b>	<b>Level</b>
CO-1					
CO-2					
CO-3					
CO-4	84%	95%	95%	92%	3.00
CO-5	84%	95%	95%	92%	3.00
CO-6	84%	95%	95%	92%	3.00

<b>Attainment Level</b>	
1	40%
2	50%
3	60%

Attainment (Internal 2 Examination) =

**3.00**

**NOTE:**

**R+O+A : RECORD+OBSERVATION+ATTENDANCE**

**V+V: VIVA VOICE**

**E+E+R:EXPERIMENT WRITE UP+EXECUTION+RESULT**

**SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY**



Department of Electronics and Communication Engineering

**Course Outcome Attainment (University Examinations)**

Name of the faculty : Dr.S.Suresh

Academic Year:

2022-23

Branch & Section: ECE

Year / Semester:

I/I

Course Name: ELEMENTS OF ECE

S.No	Roll Number	Marks Secured
1	22X31A0401	0
2	22X31A0402	0
3	22X31A0403	0
4	22X31A0404	0
5	22X31A0405	0
6	22X31A0406	0
7	22X31A0407	0
8	22X31A0408	0
9	22X31A0409	0
10	22X31A0410	0
11	22X31A0411	0
12	22X31A0412	0
13	22X31A0413	0
14	22X31A0414	0
15	22X31A0415	0
16	22X31A0416	0
17	22X31A0417	0
18	22X31A0418	0
19	22X31A0419	0
20	22X31A0420	0
21	22X31A0421	0
22	22X31A0422	0
23	22X31A0423	0
24	22X31A0424	0
25	22X31A0425	0
26	22X31A0426	0
27	22X31A0427	0
28	22X31A0428	0
29	22X31A0429	0
30	22X31A0430	0
31	22X31A0431	0
32	22X31A0432	0
33	22X31A0433	0
34	22X31A0434	0
Max Marks		0

S.No	Roll Number	Marks Secured
35	22X31A0435	0
36	22X31A0436	0
37	22X31A0437	0
38	22X31A0438	0
39	22X31A0439	0
40	22X31A0440	0
41	22X31A0441	0
42	22X31A0442	0
43	22X31A0443	0
44	22X31A0444	0
45	22X31A0445	0
46	22X31A0446	0
47	22X31A0447	0
48	22X31A0448	0
49	22X31A0449	0
50	22X31A0450	0
51	22X31A0451	0
52	22X31A0452	0
53	22X31A0453	0
54	22X31A0454	0
55	22X31A0455	0
56	22X31A0456	0
57	22X31A0457	0
58	22X31A0458	0
59	22X31A0459	0
60	22X31A0460	0
61	22X31A0461	0
62	22X31A0462	0
63	22X31A0463	0
64	22X31A0464	0
65		
66		
67		
68		

Class Average mark	0
Number of students performed above the target	64
Number of successful students	64
Percentage of students scored more than target	100%
<b>Attainment level</b>	<b>3</b>

Attainment Level	% students
1	40%
2	50%
3	60%

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY



Department of Humanities and Sciences

## Course Outcome Attainment

of the faculty : Dr.S.Suresh

Academic Year: 2022 - 23

Branch & Section: ECE

Year / Semester: I/I

Lab Course Name: ELEMENTS OF ECE

Course Outcomes	1st Internal Exam	2nd Internal Exam	Internal Exam	University Exam	Attainment Level
CO1	3.00		3.00	3.00	3.00
CO2	3.00		3.00	3.00	3.00
CO3	3.00		3.00	3.00	3.00
CO4		3.00	3.00	3.00	3.00
CO5		3.00	3.00	3.00	3.00
CO6		3.00	3.00	3.00	3.00
<b>Internal &amp; University Attainment:</b>			3.00	3.00	
<b>Weightage</b>			100%	0%	
<b>CO Attainment for the course (Internal, University)</b>			3.00	0.00	
<b>CO Attainment for the course (Direct Method)</b>			3.00		

Overall course attainment level

**3.00**

**SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY**



Department of Humanities and Sciences

**Program Outcome Attainment (from Course)**

Name of Faculty: Dr.S.Suresh

Academic Year: 2022 - 23

Branch & Section: ECE

Year / Semester: I/I

Course Name: ELEMENTS OF ECE

**CO-PO mapping**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	-	1	1	-	-	-	-	-	-	1	-	-
CO2	3	2	-	1	1	-	-	-	1	-	1	1	-	-
CO3	2	2	1	1	1	-	-	-	3	-	3	1	-	-
CO4	2	3	-	1	1	-	-	-	-	-	3	2	-	-
CO5	3	2	1	1	1	-	-	-	3	-	-	2	-	-
CO6	3	2	-	1	1	-	-	-	1	-	2	2	-	-
<b>Course</b>	<b>2.6</b>	<b>2.2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>2.25</b>	<b>1.5</b>	<b>-</b>	<b>-</b>

CO	Course Outcome Attainment
CO1	3.00
CO2	3.00
CO3	3.00
CO4	3.00
CO5	3.00
CO6	3.00
<b>Overall course attainment level</b>	<b>3.00</b>

**PO-ATTAINMENT**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>CO Attainm</b>	<b>2.60</b>	<b>2.16</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.00</b>	<b>-</b>	<b>2.25</b>	<b>1.50</b>	<b>-</b>	<b>-</b>

CO contribution to PO - 33%, 67%, 100% (Level 1/2/3)