



ESTD : 2007

EAMCET CODE: INDI



Sri Indu Institute of Engineering and Technology (Autonomous)

(Formerly RVR Institute of Engineering & Technology)

An Autonomous Institution Under UGC

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JNTUH CODE: X3

COURSE FILE

ON

APPLIED PHYSICS LB

Course Code - AP205BS

I B. Tech Semester-II

A.Y. 2022-2023

Prepared by

Mr. M JANAI AH

Asst. 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

Name of the Physical laboratory:	APPLIED PHYSICS LAB
Course code	AP205BS
Room No	B-201 & D-106
Name of the lab in charge	B. SANTHI
Name of the faculty in charge	M. JANAI AH

Index of Lab File

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1	Institute vision and mission
2	Programme outcomes
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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 stakeholder


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

PROGRAM 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 AND SOCIETY: Apply reasoning informed by the contextual knowledge to associate, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: ENVIRONMENT AND 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 AND 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 AND 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

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

Class:DATA SCIENCE

Semester: II **W.E.F:**03-04-2023

LH: D-208

	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	PYTHON LAB			L U N C H	AP	ODE	EDC	LIBRARY
TUE	ITWS/EWS LAB				AP	EDC	ENG	ODE(T) /AP(T)
WED	ODE	AP	ES		ITWS/EWS LAB			PYTHON LAB(T)/ EWS(T)
THU	ODE	ENG	EDC		ODE	EDC	AP	AP(T) /ODE(T)
FRI	AP	ENG	EDC		AP/ELCS LAB			EWS(T)/ PYTHONLAB(T)
SAT	ENG	ODE	ES		AP/ELCS LAB			ES

Course Code	Course Name	Name of the Faculty	Course Code	Course Name	Name of the Faculty
MA201BS	ODE-Ordinary Differential Equations & Vector Calculus	CH.SARITHA	AP205BS	APLAB-Applied Physics Laboratory	B.SANTHI/M.MANISHA/M.JANAIAH /P.SRINIVASACHARY
AP202BS	AP-Applied Physics	Dr.B.NAGALAKSHMI	CS201ES	Python Programming Laboratory	P.BALU/M.TEJASWI
EN204HS	ENG- English for Skill Enhancement	S.SWAPNA	EN207HS	ELCS LAB-English Language and Communication Skills Laboratory	E.PRARTHANA/S.SWAPNA
EC201ES	EDC-Electronics Devices and Circuits	P.SUMANA	CS203ES	ITWS-IT Workshop	B.RAJITHA/N.KEE RTHI CHANDANA
ME202ES	EWS-Engineering Workshop	W.MARUTHI/B.SRINU NAIK	MC201ES	ES-Environmental Science	G.VIJAY

Class In-Charge

Time Table Coordinator



Head of The Department
Sri Indu Institute of Engg. & Tech
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Telangana-501 510

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY
B.Tech. in COMPUTER SCIENCE AND ENGINEERING (DATA SCIFNCE)
COURSE STRUCTURE, I YEAR SYLLABUS
(BR22 Regulations)

Applicable from Academic Year: 2022-23 Batch

I Year II Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1.	MA101BS	Matrices and Calculus	3	1	0	4
2.	CH103BS	Engineering Chemistry	3	1	0	4
3.	CS103ES	Programming for Problem Solving	3	0	0	3
4.	EE101ES	Basic Electrical Engineering	2	0	0	2
5.	ME101ES	Computer Aided Engineering Graphics	1	0	4	3
6.	CS106ES	Elements of Computer Science & Engineering	0	0	2	1
7.	CH106BS	Engineering Chemistry Laboratory	0	0	2	1
8.	CS107ES	Programming for Problem Solving Laboratory	0	0	2	1
9.	EE102ES	Basic Electrical Engineering Laboratory	0	0	2	1
		Induction Program				
		Total	12	2	12	20

I Year II Semester

S. No.	Course Code	Course	L	T	P	Credits
1.	MA201BS	Ordinary Differential Equations and Vector Calculus	3	1	0	4
2.	AP202BS	Applied Physics	3	1	0	4
3.	ME202ES	Engineering Workshop	0	1	3	2.5
4.	EN204HS	English for Skill Enhancement	2	0	0	2
5.	EC201ES	Electronic Devices and Circuits	2	0	0	2
6.	AP205BS	Applied Physics Laboratory	0	0	3	1.5
7.	CS201ES	Python Programming Laboratory	0	1	2	2
8.	EN207HS	English Language and Communication Skills Laboratory	0	0	2	1
9.	CS203ES	IT Workshop	0	0	2	1
10.	*MC201ES	Environmental Science	3	0	0	0
		Total	13	4	12	20

APPLIED PHYSICS LABORATORY
(Course Code: AP205BS)

B.Tech. I Year II Sem.

L T P C
0 0 3 1.5

Course Objectives: The objectives of this course for the student to

1. Capable of handling instruments related to the Hall effect and photoelectric effect experiments and their measurements.
2. Understand the characteristics of various devices such as PN junction diode, Zener diode, BJT, LED, solar cell, lasers and optical fiber and measurement of energy gap and Resistivity of semiconductor materials.
3. Able to measure the characteristics of dielectric constant of a given material.
4. Study the behavior of B-H curve of ferromagnetic materials.
5. Understanding the method of least squares fitting.

Course Outcomes: The students will be able to:

1. Know the determination of the Planck's constant using Photo electric effect and identify the material whether it is n-type or p-type by Hall experiment.
2. Appreciate quantum physics in semiconductor devices and microelectronics.
3. Gain the knowledge of applications of dielectric constant.
4. Understand the variation of magnetic field and behavior of hysteresis curve.
5. Carried out data analysis.

LIST OF EXPERIMENTS:

1. Determination of work function and Planck's constant using photoelectric effect.
2. Determination of Hall co-efficient and carrier concentration of a given semiconductor.
3. Characteristics of series and parallel LCR circuits.
4. V-I characteristics of a p-n junction diode and Zener diode
5. Input and output characteristics of BJT (CE, CB & CC configurations)
6. a) V-I and L-I characteristics of light emitting diode (LED)
b) V-I Characteristics of solar cell
7. Determination of Energy gap of a semiconductor.
8. Determination of the resistivity of semiconductor by two probe method.
9. Study B-H curve of a magnetic material.
10. Determination of dielectric constant of a given material
11. a) Determination of the beam divergence of the given LASER beam
b) Determination of Acceptance Angle and Numerical Aperture of an optical fiber.
12. Understanding the method of least squares – torsional pendulum as an example.

*Note: Any 8 experiments are to be performed.***REFERENCE BOOK:**

S. Balasubramanian, M.N. Srinivasan "A Text book of Practical Physics"- S Chand Publishers, 2017.



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

A. Y: 2022-23

SEMESTER: II

CLASS:CSE(DATA SCIENCE)

Course Outcomes

After completing this course, the student will be able to:

- C126.1** Demonstrate Photoelectric Effect and Determine the work Function and planks constant (**Understanding**)L2
- C126.2** Analyzing the properties of semiconductor materials. (**Analyzing**)L4
- C126.3** Illustrate the characteristics of semiconductors devices (**Understanding**)L2
- C126.4** Construct LCR and RC circuit and evaluate their characteristics (**Applying**)L3
- C126.5** Find the properties of Laser and Optical fibre (**Remembering**) L1
- C126.6** Explain the properties of least squares, Dielectric and magnetic materials. (**Evaluating**) L5

Mapping of course outcomes with program outcomes:

High -3 Medium -2 Low-1

PO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO 2
C126.1	3	2	-	-	-	-	-	-	-	-	-	1	-	-
C126.2	3	2	-	-	-	-	-	-	-	-	-	1	-	-
C126.3	3	2	-	-	-	-	-	-	-	-	-	1	-	-
C126.4	3	2	-	-	-	-	-	-	-	-	-	1	-	-
C126.5	3	2	-	-	-	-	-	-	-	-	-	1	-	-
C126.6	3	2	-	-	-	-	-	-	-	-	-	1	-	-
AVE	3	2	-	-	-	-	-	-	-	-	-	1	-	-



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MAPPING OF EXPERIMENT OUTCOMES WITH CO/PO'S/PSO

EXPERIMENT OBJECTIVES	EXPERIMENT OUTCOMES	CO	PO'S
To determine the work function “ ϕ ” of a metal.	The student determines the work function in a given material using photoelectric effect	C126.1	PO1,PO2, PO12
1. To determine the Hall voltage developed across the sample material. 2.To calculate the Hall coefficient and the carrier concentration of the sample material	The student determines the hall voltage across the given sample and calculates the hall coefficient	C126.2	PO1,PO2,PO12
To study the frequency response and to find resonant frequencies of L-C-R series and parallel Circuits.	The student studies the frequency and to find resonant frequencies of L-C-R series and parallel Circuits.	C126.4	PO1,PO2,PO12
To draw the characteristics of p-n Zener diode	The student draws the characteristics of p-n junction and Zener diodes	C126.3	PO1,PO2,PO12
Observe the i/p and o/p characteristics Of BJT(CE,CB and CC)	The student observe the characteristics of BJT(CE,CB and CC)	C126.3	PO1,PO2,PO12
1.To Plot the V/I characteristics of Solar Cell 2.To study the volt-ampere characteristics of a given LED source	The student can able to plot the V/I characteristics of Solar Cell, LED	C126.3	PO1,PO2,PO12
To determine the energy gap of a junction diode	The student will be able to evaluate the energy gap between two allowed bands for isolated atoms and recognizing the resistivity of semiconductor varies with temperature.	C126.2	PO1, PO2,PO12
To determine the resistivity of semiconductor by two probe method	The student will determine the resistivity of semiconductor by two probe method	C126.2	PO1,PO2,PO12

To study B-H of a magnetic material	The student will study B-H of a magnetic material	C126.6	PO1,PO2,PO12
To determine the dielectric constant of a given material	The student will determine the dielectric constant	C126.6	PO1,PO2,PO12
To determine the beam divergence of the given LASER beam and Numerical Aperture of an optical fiber	The student will determines the wave length of laser source using single slit diffraction grating.	C126.5	PO1,PO2,PO12
Understanding the method of Least squares – torsional pendulum	The student Understanding the method of Least squares – torsional pendulum	C126.6	PO1,PO2,PO12
To study the Charging and Discharging of a Capacitor	The student studies the Charging and Discharging of a Capacitor/Condenser	C126.5	PO1,PO2,PO12



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Class: DATA SCIENCE

Semester: II **W.E.F:** 03-04-2023

LH: D-208

	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	PYTHON LAB			L U N C H	AP	ODE	EDC	LIBRARY
TUE	ITWS/EWS LAB				AP	EDC	ENG	ODE(T) /AP(T)
WED	ODE	AP	ES		ITWS/EWS LAB			PYTHON LAB(T)/ EWS(T)
THU	ODE	ENG	EDC		ODE	EDC	AP	AP(T) /ODE(T)
FRI	AP	ENG	EDC		AP/ELCS LAB			EWS(T)/ PYTHONLAB(T)
SAT	ENG	ODE	ES		AP/ELCS LAB			ES

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AP202BS	AP-Applied Physics	Dr.B.NAGALAKSHMI	CS201ES	Python Programming Laboratory	P.BALU/M.TEJAS WI
EN204HS	ENG- English for Skill Enhancement	S.SWAPNA	EN207HS	ELCS LAB-English Language and Communication Skills Laboratory	E.PRARTHANA/S. SWAPNA
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ME202ES	EWS-Engineering Workshop	W.MARUTHI/B.SRIN U NAIK	MC201ES	ES-Environmental Science	G.VIJAY

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AP Lab External Question Paper

A.Y: 2022-23

SEM-II

Branch: CSE (DATA SCIENCE)

DATE: 24-08-23(FN)

1. Determine the work function of given metal by using photoelectric effect.
2. Derive the values of i) Resonance Frequency ii) Band width iii) Quality Factor of the given LCR circuit.
3. Plot the V –I Characteristics of LED.
4. Determine the energy gap of a given semiconductor.
5. Determine the dielectric constant of a given material.
6. Determine the beam divergence of the given LASER light.
7. Determine the acceptance angle and numerical aperture of an optical fiber.
8. Find Hall coefficient and carrier concentration of a given semiconductor.
9. Draw the V-I characteristics of P-N junction diode
10. Plot the V –I Characteristics of Zener diode.
11. Plot the V –I Characteristics of solar cell.

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AP Lab External Time Table Examination Branch

A.Y.: 2022-23

SEM-II

DATE	Day	Branch	Session	HT.No	Total No of Students
19-08-23	SATURDAY	CSE-C	AN	22X31A05D1 TO 22X31A05J1	61
21-08-23	MONDAY	CSE-B	AN	22X31A0566 TO 22X31A05D0	65
22-08-23	TUESDAY	CS	FN	22X31A6201 TO 22X31A6262	62
23-08-23	WEDNESDAY	DS	FN	22X31A6701 TO 22X31A6764	62
24-08-23	THURSDAY	CSE-A	FN	22X31A0501 TO 22X31A0565	65

FN : 9.40 am to 12.25 pm

AN : 1.00 pm to 4.00 pm

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AP Lab External Time Table with examiners

A.Y. : 2022-23

SEM-II

Date	Day	Branch	Session	HT.No	Total No of Students	Remarks	
						Internal Examiner	External Examiner
19-08-23	SATURDAY	CSE-C	AN	22X31A05D1 TO 22X31A05J1	61	B. SANTHI (9493978954)	Dr. B. Narsimha (9490356088)
21-08-23	MONDAY	CSE-B	AN	22X31A0566 TO 22X31A05D0	65	M.JANAIAH (9291513934)	Mrs. G. Sandhya (9441719540)
22-08-23	TUESDAY	CS	FN	22X31A6201 TO 22X31A6262	62	B.SANTHI (9493978954)	Dr. A. Azhagiri (9952583969)
23-08-23	WEDNESDAY	DS	FN	22X31A6701 TO 22X31A6764	62	M.JANAIAH (9291513934)	Mr. P. Venkatesh- (9014229680)
24-08-23	THURSDAY	CSE-A	FN	22X31A0501 TO 22X31A0565	65	P.SRINIVAS A CAHARY (9848662600)	Dr.B.Rajini Kanth (7893092879)

FN: 9.40 am to 12.25 pm

AN: 1.00 pm to 4.00 pm


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DEPARTMENT OF HUMANITIES AND SCIENCES

Lab Occupancy Time Table for AY 2022-2023

Class: IB. Tech

Semester: II

W.E.F-03-04-2023

LH: B-201

Period/ Day	1	2	3	12:10- 12:45	4	5	6	7	
	9:40- 10:30	10:30-11:20	11:20- 12:10		12.45-1.35	1:35- 2.25	2:25- 3:15	3:15-4:00	
Monday				L U N C H					
Tuesday	CSE-B(BATCH-II)								
Wednesday						CSE-C (BATCH-II)			
Thursday	MAINTANANCE								
Friday	CSE-A (BATCH-II)					DATA SCIENCE(BATCH-1)			
Saturday	CYBER SECURITY(BATCH-II)					DATA SCIENCE(BATCH-II)			


Head of the Department
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DEPARTMENT OF HUMANITIES AND SCIENCES

Lab Occupancy Time Table for AY 2022-2023

Class: IB. Tech

Semester: II

W.E.F- 03-04-2023

LH: D-106

Period/ Day	1	2	3	12:10- 12:45	4	5	6	7
	9:40- 10:30	10:30- 11:20	11:20- 12:10		12.45- 1.35	1:35- 2.25	2:25- 3:15	3:15- 4:00
Monday	CSE-C (BATCH-I)				CSE-B(BATCH-I)			
Tuesday					MAINTANANCE			
Wednesday								
Thursday	CSE-A(BATCH-I)							
Friday					CYBER SECURITY(BATCH-I)			
Saturday								


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Department of H&S
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Khalsa Ibrahimpatnam, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist., Telangana – 501510

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

APPLIED PHYSICS LAB

Course: B.Tech. I Year

SUB CODE: AP205BS

Do's

1. Conduct in a responsible manner at all times in the laboratory.
2. Keep the work area clean, neat and free of any unnecessary objects.
3. Read the description, procedure and precautions of the experiment in the lab manual.
4. Place all sensitive electronic equipment safely on experimental table.
5. Before using the equipment one must read the labels and instructions carefully.
6. Set up and use the equipment as directed by the lab instructor.
7. Circuit connections are to be done only in power off mode.
8. Checkout the circuit connections before switching on the power.
9. Increase the power readings from minimum to maximum.
10. All procedures and experimental data should be recorded in the lab observation notebook.
11. Switch of the power in the circuit after completion of the experiment.
12. Any failure / break-down of equipment must be reported to the instructor.
13. Return the material properly after the completing the experiment.
14. Replace the materials in proper place after work.
15. Be careful when handling optical items like prisms, gratings etc.

Don't s

1. Do not wear loose clothing and do not hold any conducting materials in contact with skin when the power is on.
2. Do not touch any equipment or other materials in the laboratory area until instructed by instructor.
3. Do not modify or damage the laboratory equipment in any way unless the modification is directed by the instructor.
4. Do not handle electrical equipment and connections with wet hands.
5. Do not try to connect power in to the circuit without proper understanding of the circuit diagram.
6. Do not look directly into laser source.
7. Do not short any battery box or power supply, it may damage retina in your eye.
8. Never switch on the power button of the circuit until it has been approved by instructor.

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY



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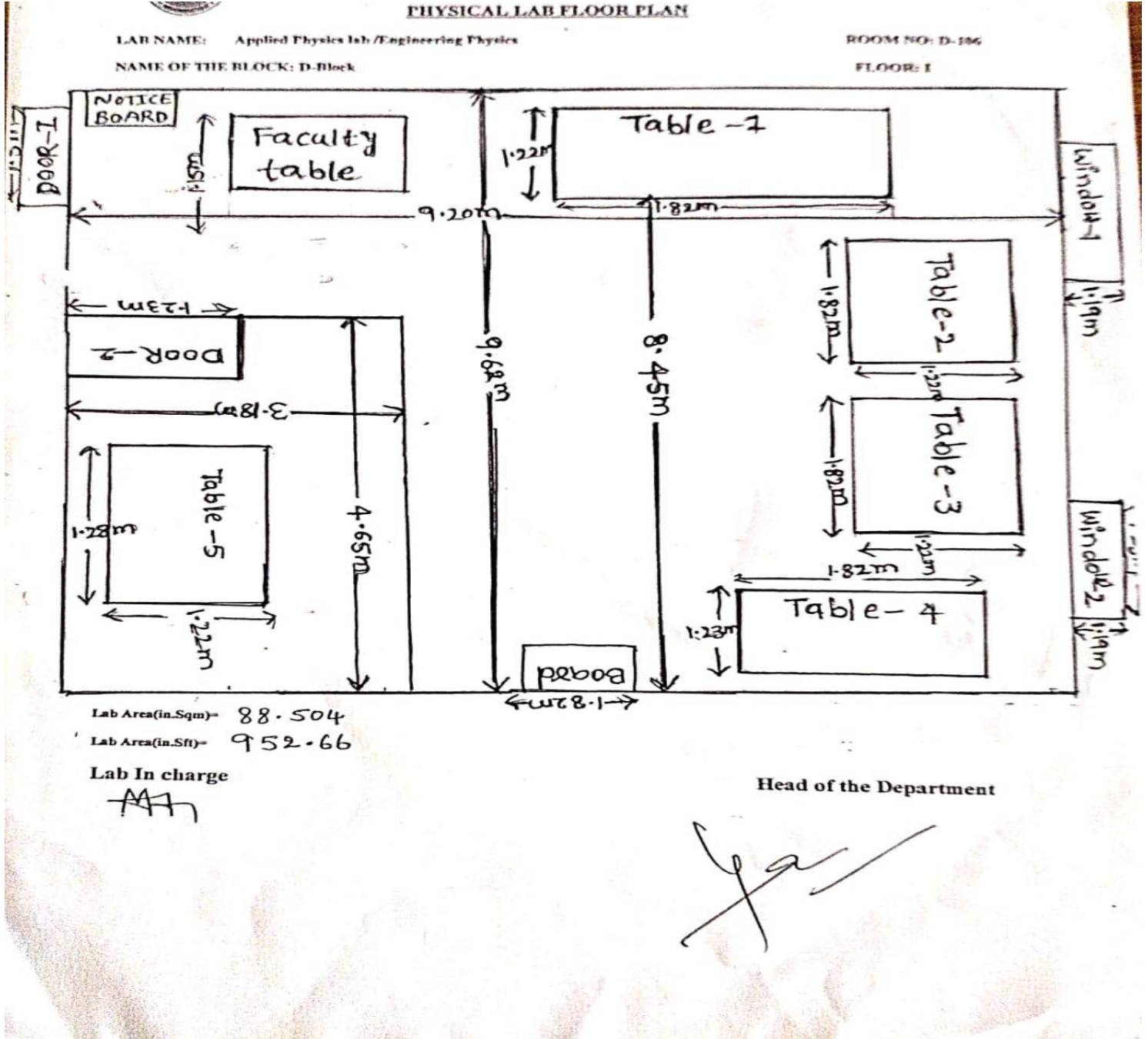
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Khalsa Ibrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana – 501 510

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

APPLIED PHYSICS LAB - 1 FLOOR PLAN



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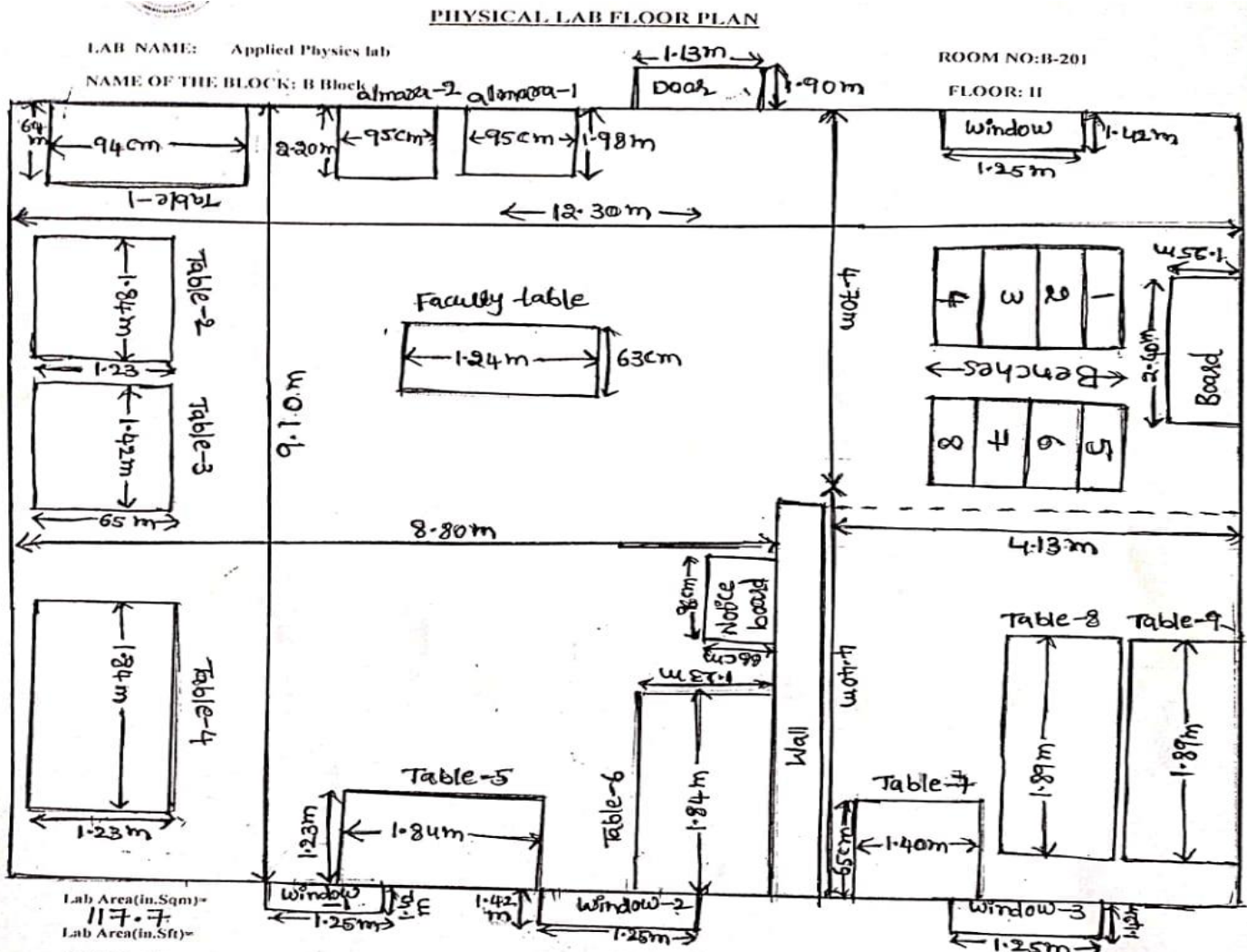
Khalsa Ibrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana – 501

510

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APPLIED PHYSICS LAB - 2FLOOR

PLAN



Lab Area (in. Sqm) = 117.7
 Lab Area (in. Sft) = 1266.9

Lab Incharge
[Signature]

Head of the Department

[Signature]

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

Lab manual link

https://drive.google.com/file/d/1UTyWcm6bNeIw5qa_7CrdjE7PxMdQmHJ/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 :	M.JANAIAH	Academic Year:	2022 - 23
Branch & Section:	DATA SCIENCE	Examination:	LAB INTERNAL-I
Lab Course Name:	APPLIED PHYSICS	Year/semester	I/II

S.No	HT No.	R+O+A	V+V	E+E+R
Max. Marks ==>		10	10	10
1	22X31A6701	9	6	10
2	22X31A6702	8	8	10
3	22X31A6703	9	9	9
4	22X31A6704	10	9	10
5	22X31A6705	9	6	10
6	22X31A6706	7	6	5
7	22X31A6707	8	6	10
8	22X31A6708	8	4	9
9	22X31A6709	9	6	10
10	22X31A6710	5	6	7
11	22X31A6711	10	8	10
12	22X31A6712	9	7	8
13	22X31A6713	9	5	7
14	22X31A6714	6	6	6
15	22X31A6715	9	6	10
16	22X31A6716	6	6	6
17	22X31A6717	9	6	9
18	22X31A6718	10	9	9
19	22X31A6719	9	6	9
20	22X31A6720	10	8	10
21	22X31A6721	10	8	10
22	22X31A6722	9	6	8
23	22X31A6723	9	5	7
24	22X31A6724	10	10	10
25	22X31A6725	9	7	10
26	22X31A6726	10	6	10
27	22X31A6727	8	7	10
28	22X31A6728	9	7	9
29	22X31A6729	8	4	7
30	22X31A6730	9	6	9
31	22X31A6731	9	6	8
32	22X31A6732			
33	22X31A6733	9	6	9
34	22X31A6734	10	8	10
35	22X31A6735			
36	22X31A6736	10	9	10
37	22X31A6737	10	9	10
38	22X31A6738	9	7	8
39	22X31A6739	7	6	7
40	22X31A6740	5	6	7
41	22X31A6741	6	6	6
42	22X31A6742	6	6	6
43	22X31A6743	10	7	7
44	22X31A6744	9	6	7
45	22X31A6745	10	9	9
46	22X31A6746	10	7	8
47	22X31A6747	10	9	10
48	22X31A6748	10	8	10
49	22X31A6749	7	6	7
50	22X31A6750	10	7	9
51	22X31A6751	10	8	10
52	22X31A6752	7	6	5
53	22X31A6753	6	6	7
54	22X31A6754	9	9	10
55	22X31A6755	7	6	8
56	22X31A6756	8	7	7
57	22X31A6757	7	6	8
58	22X31A6758	9	7	9
59	22X31A6759	9	7	10
60	22X31A6760	10	9	10
61	22X31A6761	9	5	9
62	22X31A6762	10	7	10
63	22X31A6763	10	7	10
64	22X31A6764	10	10	10

Target set by the faculty / HoD	6.00	6.00	6.00				
Number of students performed above the target	60	57	60				
Number of students attempted	62	62	62				
Percentage of students scored more than target	97%	92%	97%				

CO Mapping with Exam Questions:

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

CO Attainment based on Exam Questions:

CO - 1	97%	97%	97%				
CO - 2	97%	97%	97%				
CO - 3	97%	97%	97%				
CO - 4							
CO - 5							
CO - 6							

CO	Intrnal practical	E+E+R	Overall	Level	Attainment Level	
CO-1	97%	97%	97%	3		
CO-2	97%	97%	97%	3	1	40%
CO-3	97%	97%	97%	3	2	50%
CO-4					3	60%
CO-5						
CO-6						

Attainment (Internal 1 Examination) = **3**

Target set by the faculty / HoD	6.00	6.00	6.00	6.00				
Number of students performed above the target	59	44	55	0				
Number of students attempted	62	62	62	0				
Percentage of students scored more than target	95%	71%	89%					
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				
CO Attainment based on Exam Questions:								
CO - 1								
CO - 2								
CO - 3								
CO - 4	95%	71%	89%	89%				
CO - 5	95%	71%	89%	89%				
CO - 6	95%	71%	89%	89%				
CO	Intrnal practical	E+E+R	ppt	Overall	Level			
CO-1								
CO-2								
CO-3								
CO-4	83%	89%	89%	87%	3	Attainment Level		
CO-5	83%	89%	89%	87%	3	1	40%	
CO-6	83%	89%	89%	87%	3	2	50%	
Attainment (Internal 2 Examination) =					3	3	60%	

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences



Course Outcome Attainment (Internal Examination-2)

Name of the faculty :	M. JANAI AH	Academic Year:	2022 - 23
Branch & Section:	DATA SCIENCE	Examination:	LAB INTERNAL-II
Lab Course Name:	APPLIED PHYSICS	Year/semester	I/II

S.No	HT No.	R+O+A	V+V	E+E+R	ppt
Max. Marks ==>		10	10	10	10
1	22X31A6701	9	6	8	10
2	22X31A6702	10	3	7	10
3	22X31A6703	10	9	10	10
4	22X31A6704	10	9	10	10
5	22X31A6705	9	6	6	10
6	22X31A6706	9	6	8	10
7	22X31A6707	9	5	8	10
8	22X31A6708	9	3	7	10
9	22X31A6709	9	8	9	10
10	22X31A6710	10	6	8	10
11	22X31A6711	10	8	10	10
12	22X31A6712	9	2	5	10
13	22X31A6713	9	6	8	10
14	22X31A6714	8	7	7	10
15	22X31A6715	10	9	10	10
16	22X31A6716	10	2	6	10
17	22X31A6717	10	5	5	10
18	22X31A6718	10	10	10	10
19	22X31A6719	10	8	8	10
20	22X31A6720	9	8	9	10
21	22X31A6721	10	8	8	10
22	22X31A6722	10	3	8	10
23	22X31A6723	10	5	8	10
24	22X31A6724	10	10	6	10
25	22X31A6725	10	6	8	10
26	22X31A6726	10	8	10	10
27	22X31A6727	8	10	9	10
28	22X31A6728	10	7	8	10
29	22X31A6729	7	6	8	10
30	22X31A6730	10	4	8	10
31	22X31A6731	10	7	10	10
32	22X31A6732				10
33	22X31A6733	10	7	9	10
34	22X31A6734	9	9	8	10
35	22X31A6735				10
36	22X31A6736	10	7	10	10
37	22X31A6737	10	6	9	10
38	22X31A6738	10	6	10	10
39	22X31A6739	4	4	6	10
40	22X31A6740	4	5	5	10
41	22X31A6741	5	4	5	10
42	22X31A6742	6	6	8	10
43	22X31A6743	9	8	8	10
44	22X31A6744	10	8	8	10
45	22X31A6745	10	10	10	10
46	22X31A6746	8	5	10	10
47	22X31A6747	10	7	10	10
48	22X31A6748	9	6	10	10
49	22X31A6749	8	8	8	10
50	22X31A6750	8	7	9	10
51	22X31A6751	9	7	10	10
52	22X31A6752	9	2	5	10
53	22X31A6753	6	4	5	10
54	22X31A6754	9	9	8	10
55	22X31A6755	9	6	8	10
56	22X31A6756	6	6	6	10
57	22X31A6757	8	2	7	10
58	22X31A6758	6	6	9	10
59	22X31A6759	10	7	10	10
60	22X31A6760	10	5	9	10
61	22X31A6761	7	6	8	10
62	22X31A6762	7	5	5	10
63	22X31A6763	8	9	8	10
64	22X31A6764	10	8	10	10

Target set by the faculty / HoD	6.00	6.00	6.00	6.00				
Number of students performed above the target	59	44	55	64				
Number of students attempted	62	62	62	64				
Percentage of students scored more than target	95%	71%	89%	100%				

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

CO Attainment based on Exam Questions:

CO - 1				
CO - 2				
CO - 3				
CO - 4	95%	71%	89%	89%
CO - 5	95%	71%	89%	89%
CO - 6	95%	71%	89%	89%

CO	Intrnal practical	E+E+R	ppt	OverallI	Level	Attainment Level	
CO-1							
CO-2							
CO-3							
CO-4	83%	89%	89%	87%	3	1	40%
CO-5	83%	89%	89%	87%	3	2	50%
CO-6	83%	89%	89%	87%	3	3	60%
Attainment (Internal 2 Examination) =					3		

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY



Department of Humanities and Sciences

Course Outcome Attainment

Name of the faculty	M. JANAI AH	Academic Year:	2022 - 23
Branch & Section:	DATA SCIENCE	Year / Semester:	I/II
Lab Course Name:	APPLIED PHYSICS		

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
Internal & University Attainment:			3.00	3.00	
Weightage			70%	30%	
CO Attainment for the course (Internal, University)			2.10	0.90	
CO Attainment for the course (Direct Method)			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: M. JANAI AH	Academic Year: 2022 - 23
Branch & Section: DATA SCIENCE	Year / Semester: I/II
Course Name: APPLIED PHYSICS	

CO-PO mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2										1		
CO2	3	2										1		
CO3	3	2										1		
CO4	3	2										1		
CO5	3	2										1		
CO6	3	2										1		
Course	3.00	2.00										1.00		

CO	Course Outcome Attainment
	3.00
CO1	3.00
CO2	3.00
CO3	3.00
CO4	3.00
CO5	3.00
CO6	3.00
Overall course attainment level	3.00

PO-ATTAINMENT

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	3.00	2.00										1.00

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