COURSE FILE

ON

APPLIED PHYSICS LAB

Course Code - AP205BS

I B. Tech Semester-II

A.Y. 2022-2023

Prepared by

Mrs. B. SANTHI

Asst. Professor

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

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

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	B. SANTHI

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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 technicaland 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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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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SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

B. Tech. in CSE (CYBER SECURITY)
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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A. Y: 2022-23 **SEMESTER: II** **CLASS: CSE(CYBER SECURITY)**

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 response 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 junction 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 observes 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 determine 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 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: CYBER SECURITY **Semester: II** **W.E.F-03-04-2023** **LH:-D-207**

	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	ENG	AP	ODE	**LUNCH**	PYTHON LAB			EWS(T)/ PYTHON LAB(T)
TUE	AP	ENG	ENG		ES	ODE	EDC	LIBRARY
WED	EWS/ELCS LAB				AP	ODE	ENG	ES
THU	EDC	AP	ES		EWS/ELCS LAB			ODE(T) /AP(T)
FRI	EDC	ODE	ENG		ITWS/AP LAB			AP(T) /ODE(T)
SAT	ITWS/AP LAB				ODE	AP	EDC	PYTHON LAB(T)/ EWS(T)

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 Phyics Laboratory	Dr.B.NAGALAKSHMI/B.SANTHI/M.MANISHA/ M.JANAIAH
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	S.SWAPNA/D.ANAND RAO
EC201ES	EDC-Electronics Devices and Circuits	B.ASHWINI	**CS203ES**	ITWS-IT Workshop	B.RAJITHA/N.KEERTHI CHANDANA
ME202ES	EWS-Engineering Workshop	MVB.KALYAN/B.SRINU NAIK	MC201ES	ES-Environmental Science	G.VIJAY

Class In-Charge **Time Table Coordinator** **Head of The Department**

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AP Lab External Question Paper

A.Y: 2022-23 **SEM-II** **Branch: CYBER SECURITY**

DATE: 22-08-23(FN)

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

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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. B. Narsimha (9490356088)
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. SRINIVASA CHARY (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				LUNCH				
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-1I)			

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DEPARTMENT OF HUMANITIES AND SCIENCES

Lab Occupancy Time Table for AY 2022-2023

Class: I B. Tech **Semester: II** **W.E.F- 03-04-2023** **LH: D-106**

Period/ Day	1	2	3		4	5	6	7
	9:40-10:30	10:30-11:20	11:20-12:10	12:10-12:45	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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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

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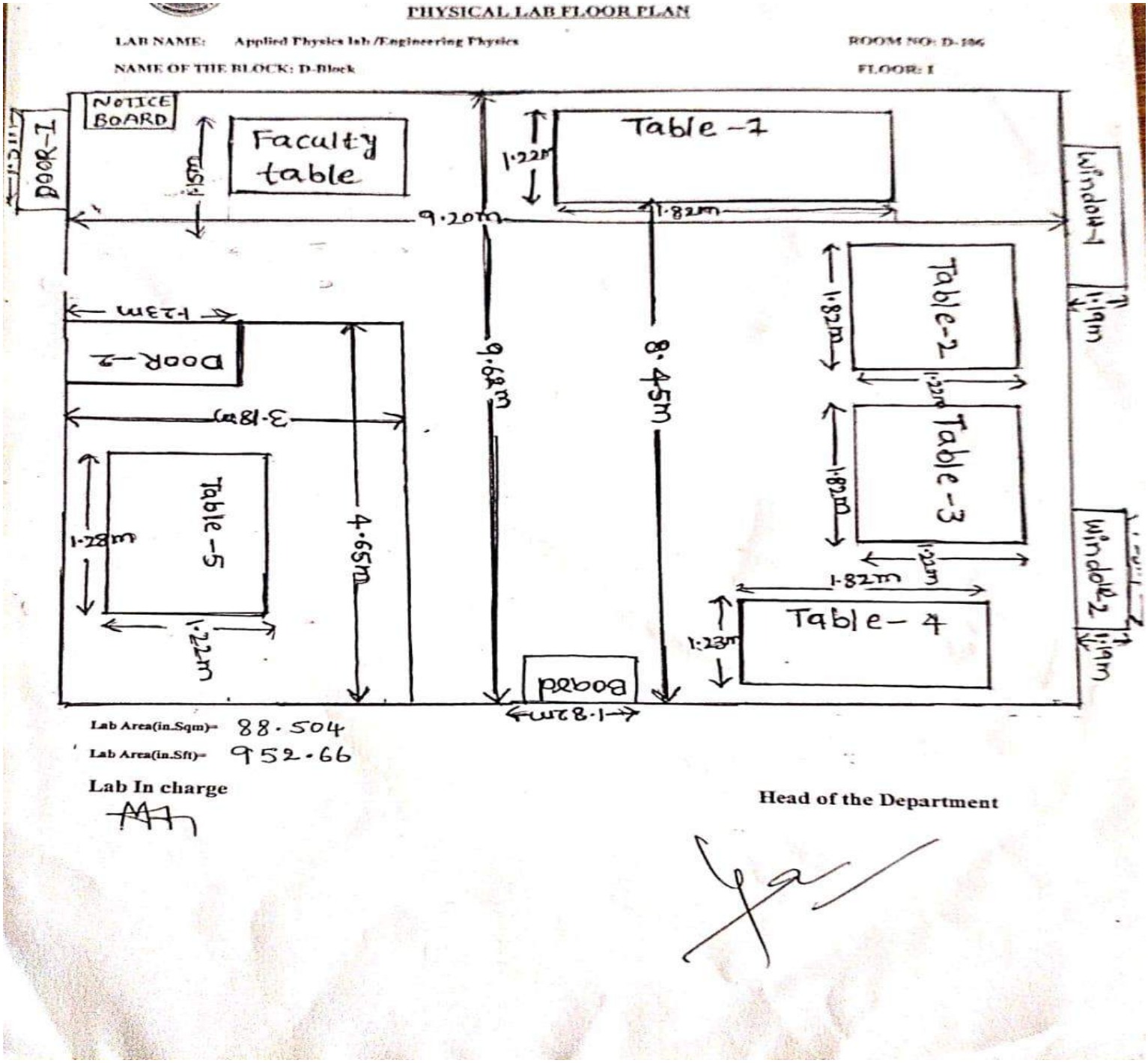
APPLIED PHYSICS LAB - 1 FLOOR PLAN



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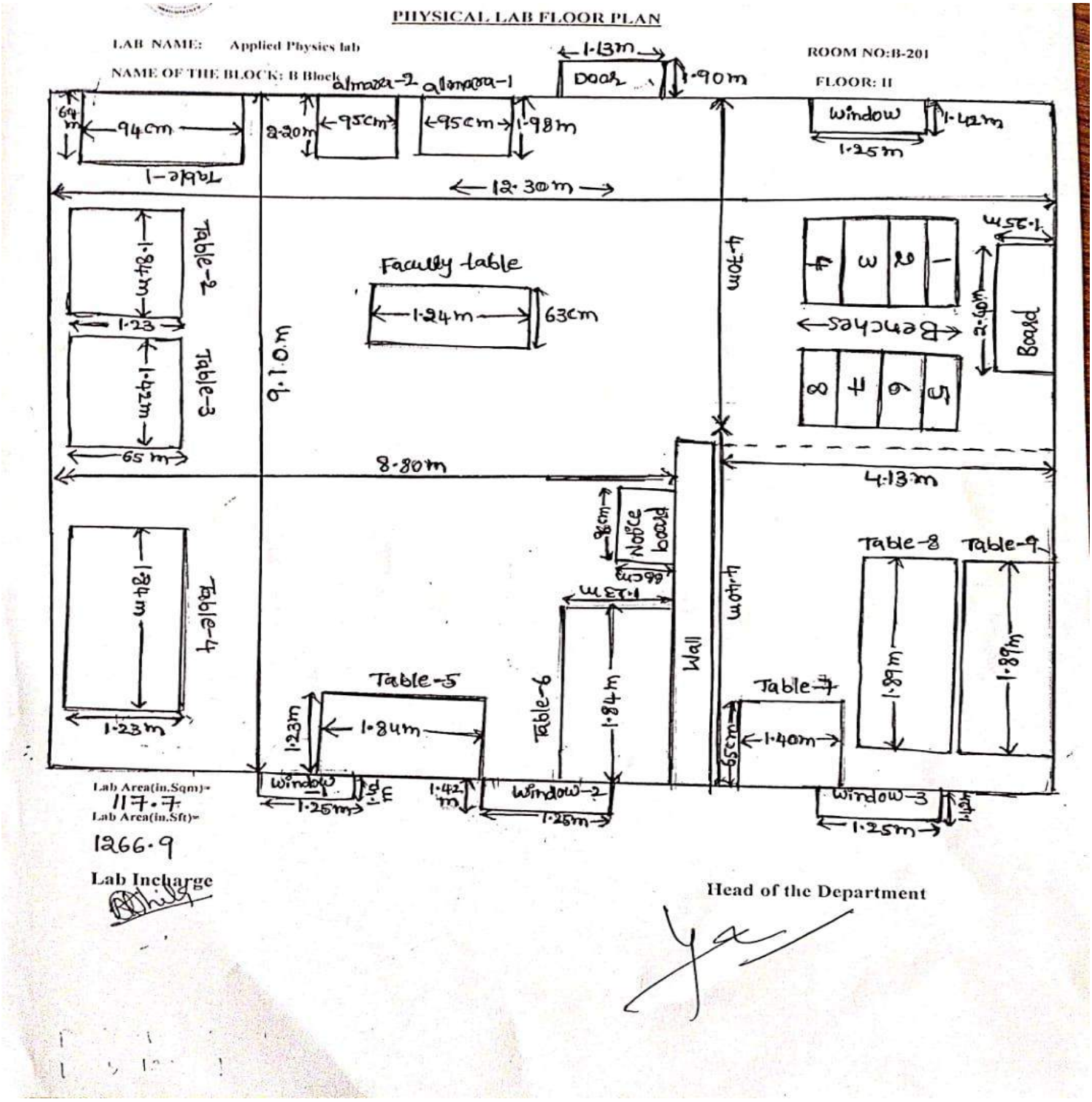
APPLIED PHYSICS LAB - 2FLOOR PLAN



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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 :	B SANTHI	Academic Year:	2022 - 23
Branch & Section:	CYBER SECURITY	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	22X31A6201	8	6	9
2	22X31A6202	10	4	8
3	22X31A6203	10	5	10
4	22X31A6204	10	5	10
5	22X31A6205	10	7	10
6	22X31A6206	10	4	10
7	22X31A6207	10	4	7
8	22X31A6208	10	6	9
9	22X31A6209	10	4	9
10	22X31A6210	10	6	10
11	22X31A6211	9	5	10
12	22X31A6212	10	4	10
13	22X31A6213	10	5	9
14	22X31A6214	10	9	10
15	22X31A6215	10	5	9
16	22X31A6216	10	5	10
17	22X31A6217	10	6	10
18	22X31A6218	10	3	7
19	22X31A6219	10	6	8
20	22X31A6220	10	4	9
21	22X31A6221	10	4	7
22	22X31A6222	9	4	9
23	22X31A6223	10	6	10
24	22X31A6224	10	5	9
25	22X31A6225	10	5	9
26	22X31A6226	9	5	10
27	22X31A6227	10	5	9
28	22X31A6228	9	6	9
29	22X31A6229	10	7	8
30	22X31A6230	10	6	7
31	22X31A6231	9	6	7
32	22X31A6232	10	6	8
33	22X31A6233	10	6	8
34	22X31A6234	9	5	6
35	22X31A6235	9	4	5
36	22X31A6236	10	4	10
37	22X31A6237	9	6	7
38	22X31A6238	9	3	6
39	22X31A6239	9	5	9
40	22X31A6240	9	6	7
41	22X31A6241	10	8	10
42	22X31A6242	9	4	7
43	22X31A6243	10	5	9
44	22X31A6244	9	6	5
45	22X31A6245	10	9	10
46	22X31A6246	10	5	10
47	22X31A6247	10	7	10
48	22X31A6248	10	5	9
49	22X31A6249	10	6	7
50	22X31A6250			
51	22X31A6251	10	5	9
52	22X31A6252	10	5	7
53	22X31A6253	10	8	10
54	22X31A6254	10	5	10
55	22X31A6255	10	6	9
56	22X31A6256	10	4	10
57	22X31A6257	10	5	9
58	22X31A6258	10	6	9
59	22X31A6259	9	5	7
60	22X31A6260	9	3	8
61	22X31A6261	10	7	10
62	22X31A6262	10	5	9

Target set by the faculty / HoD	6.00	6.00	6.00
Number of students performed above the target	61	25	59
Number of students attempted	61	61	61
Percentage of students scored more than target	100%	41%	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	100%	100%	97%
CO - 2	100%	100%	97%
CO - 3	100%	100%	97%
CO - 4			
CO - 5			
CO - 6			

CO	Intrnal practica	E+E+R	OverallI	Level
CO-1	100%	97%	98%	3
CO-2	100%	97%	98%	3
CO-3	100%	97%	98%	3
CO-4				
CO-5				
CO-6				
Attainment (Internal 1 Examination) =				**3**

Attainment Level	
1	40%
2	50%
3	60%

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences

rse Outcome Attainment (Internal Examination-2)

Name of the faculty :	B SANTHI	Academic Year:	2022 - 23
Branch & Section:	CYBER SECURITY	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	22X31A6201	8	3	9	10
2	22X31A6202	8	3	9	10
3	22X31A6203	10	6	10	10
4	22X31A6204	10	4	9	10
5	22X31A6205	10	7	10	10
6	22X31A6206	10	6	10	10
7	22X31A6207	7	3	8	10
8	22X31A6208	10	7	10	10
9	22X31A6209	8	5	5	10
10	22X31A6210	10	7	10	10
11	22X31A6211	8	5	9	10
12	22X31A6212	10	7	10	10
13	22X31A6213	10	5	7	10
14	22X31A6214	10	8	10	10
15	22X31A6215	10	3	5	10
16	22X31A6216	9	3	8	10
17	22X31A6217	10	8	10	10
18	22X31A6218	9	4	9	10
19	22X31A6219	8	3	9	10
20	22X31A6220	8	3	9	10
21	22X31A6221	10	5	5	10
22	22X31A6222	10	5	10	10
23	22X31A6223	10	8	10	10
24	22X31A6224	10	4	4	10
25	22X31A6225	9	4	10	10
26	22X31A6226	9	3	8	10
27	22X31A6227	9	3	10	10
28	22X31A6228	9	4	5	10
29	22X31A6229	7	4	5	10
30	22X31A6230	10	6	6	10
31	22X31A6231	7	5	4	10
32	22X31A6232	10	6	9	10
33	22X31A6233	10	6	10	10
34	22X31A6234	8	4	6	10
35	22X31A6235	9	3	4	10
36	22X31A6236	10	6	10	10
37	22X31A6237	10	6	10	10
38	22X31A6238	9	3	4	10
39	22X31A6239	9	5	4	10
40	22X31A6240	10	5	10	10
41	22X31A6241	10	8	10	10
42	22X31A6242	10	5	3	10
43	22X31A6243	10	6	10	10
44	22X31A6244	9	4	5	10
45	22X31A6245	10	8	10	10
46	22X31A6246	9	2	3	10
47	22X31A6247	10	8	10	10
48	22X31A6248	10	6	10	10
49	22X31A6249	10	6	10	10
50	22X31A6250				10
51	22X31A6251	10	6	10	10
52	22X31A6252	9	5	10	10
53	22X31A6253	10	9	10	10
54	22X31A6254	10	7	10	10
55	22X31A6255	9	6	10	10
56	22X31A6256	10	6	10	10
57	22X31A6257	10	5	3	10
58	22X31A6258	10	8	10	10
59	22X31A6259	10	6	10	10
60	22X31A6260	10	6	10	10
61	22X31A6261	10	8	10	10
62	22X31A6262	9	5	4	10

Target set by the faculty / HoD	6.00	6.00	6.00	6.00
Number of students performed above the target	61	29	46	62
Number of students attempted	61	61	61	62
Percentage of students scored more than target	100%	48%	75%	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	100%	48%	75%	75%
CO - 5	100%	48%	75%	75%
CO - 6	100%	48%	75%	75%

CO	Intrnal practical	E+E+R	ppt	OverallI	Level
CO-1					
CO-2					
CO-3					
CO-4	74%	75%	75%	75%	3
CO-5	74%	75%	75%	75%	3
CO-6	74%	75%	75%	75%	3
Attainment (Internal 2 Examination) =					**3**

Attainment Level	
1	40%
2	50%
3	60%

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences

Course Outcome Attainment (University Examinations)

Name of the faculty :	B SANTHI	Academic Year:	2022 - 23
Branch & Section:	CYBER SECURITY	Year / Semester:	I/II
Lab Course Name:	APPLIED PHYSICS		

S.No	Roll Number	Marks Secured	S.No	Roll Number	Marks Secured
1	22X31A6701	30	35	22X31A6235	28
2	22X31A6702	33	36	22X31A6236	52
3	22X31A6703	48	37	22X31A6237	52
4	22X31A6704	42	38	22X31A6238	24
5	22X31A6705	53	39	22X31A6239	33
6	22X31A6706	50	40	22X31A6240	46
7	22X31A6707	35	41	22X31A6241	57
8	22X31A6708	52	42	22X31A6242	30
9	22X31A6709	28	43	22X31A6243	50
10	22X31A6710	54	44	22X31A6244	33
11	22X31A6711	48	45	22X31A6245	54
12	22X31A6712	58	46	22X31A6246	42
13	22X31A6713	46	47	22X31A6247	58
14	22X31A6714	54	48	22X31A6248	35
15	22X31A6715	35	49	22X31A6249	50
16	22X31A6716	47	50	22X31A6250	
17	22X31A6717	56	51	22X31A6251	52
18	22X31A6718	50	52	22X31A6252	40
19	22X31A6719	30	53	22X31A6253	60
20	22X31A6720	45	54	22X31A6254	55
21	22X31A6721	50	55	22X31A6255	52
22	22X31A6722	40	56	22X31A6256	42
23	22X31A6723	58	57	22X31A6257	40
24	22X31A6724	31	58	22X31A6258	56
25	22X31A6725	46	59	22X31A6259	48
26	22X31A6726	35	60	22X31A6260	52
27	22X31A6727	31	61	22X31A6261	57
28	22X31A6728	26	62	22X31A6262	43
29	22X31A6729	29			
30	22X31A6730	29			
31	22X31A6731	25			
32	22X31A6733	42			
33	22X31A6734	47			
34	22X31A6234	26			

		Attainment Level	% students
Class Average mark	43		
Number of students performed above the target	33	1	40%
Number of successful students	61	2	50%
Percentage of students scored more than target	54%	3	60%
Attainment level	**3**		

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences

Course Outcome Attainment

Name of the faculty	B SANTHI	Academic Year:	2022 - 23
Branch & Section:	CYBER SECURITY	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:	B SANTHI	Academic Year:	2022 - 23
Branch & Section:	CYBER SECURITY	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**
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	PSO1	PSO2
CO Attainment	**3.00**	**2.00**										**1.00**		

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