



**EXCEL ENGINEERING COLLEGE**

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Accredited by NBA(AERO, CSE, ECE, MECH & NAAC with "A+" and Recognised by UGC (2f &12B)  
KOMARAPALAYAM - 637303

**Department of Electronics and Communication Engineering**

**SEMESTER 1**

<b>COURSE CODE/ COURSE NAME</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>	<b>CO AVERAGE</b>
<b>C101/ Communicative English</b>	3	3	3	3	3	3
<b>C102/ Engineering Mathematics - I</b>	1.72	1.72	1.72	1.72	1.72	1.72
<b>C103/ Engineering Physics</b>	1.72	1.72	1.72	1.72	1.72	1.72
<b>C104/ Engineering Chemistry</b>	1.72	1.72	1.72	1.72	1.72	1.72
<b>C105/ Problem solving and python Programming</b>	2	2	2	2	2	2
<b>C106/ Engineering Graphics</b>	1.72	1.72	1.72	1.72	1.72	1.72
<b>C107/ Problem solving and python Programming Lab</b>	3	3	3	3	3	3
<b>C108/ Physics and Chemistry Laboratory</b>	3	3	3	3	3	3
<b>C109/ Technical English</b>	3	3	3	3	3	3

**SEMESTER 2**

<b>C110/ Engineering Mathematics - II</b>	3	3	3	3	3	3
<b>C111/ Physics for Electronics Engineering</b>	3	3	3	3	3	3
<b>C112/ Basic Electrical and Instrumentation Engineering</b>	3	3	3	3	3	3
<b>C113/ Circuit Analysis</b>	3	3	3	3	3	3
<b>C114/ Electronic Devices</b>	3	3	3	3	3	3
<b>C115/ Circuits and Devices Laboratory</b>	3	3	3	3	3	3
<b>C116/ Engineering Practices Laboratory</b>	3	3	3	3	3	3

**SEMESTER 3**

<b>C201/ Linear Algebra and Partial Differential Equations</b>	2	2	2	2	2	2
<b>C202/ Fundamentals of Data Structures in C</b>	3	3	3	3	3	3
<b>C203/ Electronic Circuits- I</b>	3	3	3	3	3	3
<b>C204/ Signals and Systems</b>	3	3	3	3	3	3
<b>C205/ Digital Electronics</b>	3	3	3	3	3	3
<b>C206/ Control System Engineering</b>	3	3	3	3	3	3
<b>C207/ Fundamentals of Data Structures in C Laboratory</b>	3	3	3	3	3	3
<b>C208/ Analog and Digital Circuits Laboratory</b>	3	3	3	3	3	3

**SEMESTER 4**

<b>C209/ Probability and Random Processes</b>	3	3	3	3	3	3
<b>C210/ Electronic Circuits- II</b>	3	3	3	3	3	3
<b>C211/ Communication Theory</b>	3	3	3	3	3	3
<b>C212/ Electromagnetic Fields</b>	3	3	3	3	3	3
<b>C213/ Linear Integrated Circuits</b>	3	3	3	3	3	3
<b>C214/ Environmental Science and Engineering</b>	3	3	3	3	3	3
<b>C215/ Circuit Design and Simulation Lab</b>	3	3	3	3	3	3
<b>C216/ Linear Integrated Circuit Laboratory</b>	3	3	3	3	3	3

**SEMESTER 5**

<b>C301/ Digital Communication</b>	3	3	3	3	3	3
<b>C302/ Discrete Time Signal Processing</b>	3	3	3	3	3	3
<b>C303/ Computer Architecture and Organization</b>	3	3	3	3	3	3
<b>C304/ Communication Networks</b>	3	3	3	3	3	3
<b>C305/ Medical Electronics</b>	3	3	3	3	3	3
<b>C306/ Digital Audio Engineering</b>	3	3	3	3	3	3
<b>C307/ Digital Signal Processing Lab</b>	3	3	3	3	3	3
<b>C308/ Communication System Laboratory</b>	3	3	3	3	3	3
<b>C309/ Communication Networks Laboratory</b>	3	3	3	3	3	3

**SEMESTER 6**

<b>C310/ Microprocessors and Microcontrollers</b>	3	3	3	3	3	3
<b>C311/ VLSI Design</b>	3	3	3	3	3	3
<b>C312/ Wireless Communication</b>	3	3	3	3	3	3
<b>C313/ Principles of Management</b>	3	3	3	3	3	3
<b>C314/ Transmission Lines and RF Systems</b>	3	3	3	3	3	3
<b>C315/ Wireless Networks</b>	3	3	3	3	3	3
<b>C316/ Microprocessors and Microcontrollers Lab</b>	3	3	3	3	3	3
<b>C317/ VLSI Design Laboratory</b>	3	3	3	3	3	3

**SEMESTER 7**

<b>C401/ Antennas and Microwave Engineering</b>	3	3	3	3	3	3
<b>C402/ Optical Communications</b>	3	3	3	3	3	3
<b>C403/ Embedded and Real Time Systems</b>	3	3	3	3	3	3
<b>C404/ Ad hoc and Wireless Sensors Networks</b>	3	3	3	3	3	3
<b>C405/ Industrial Safety</b>	2.52	3	3	3	3	2.90
<b>C406/ Embedded Laboratory</b>	3	3	3	3	3	3
<b>C407/ Advanced Communication Laboratory</b>	3	3	3	3	3	3

**SEMESTER 8**

<b>C408/ Low Power SOC</b>	3	3	3	3	3	3
<b>C409/ Satellite Communication</b>	3	3	3	3	3	3
<b>C410/ Project Work</b>	3	3	3	3	3	3

*N. Srin*  
Academic Coordinator

*G. P. S.*  
H.O.D./ECE 2





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### COURSE OUTCOMES AND PROGRAM OUTCOMES (2019-23 BATCH)

POs and PSOs Attainment through Direct and Indirect Assessment-ATTAINMENT

### COURSE OUTCOMES AND PROGRAM OUTCOMES (2019-23 BATCH)

Program level Course – PO and PSO matrix of all courses including first year courses-MAPPING

S.No.	SEM ESTER	Course Code	COURSE TITLE	PROGRAM OUTCOMES												PROGRAM SPECIFIC OUTCOMES		
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	1	C101	Communicative English	1.00	1.67	1.00	1.50	1.00	1.00	1.33	1.50	1.20	1.50	1.00	1.67	-	-	-
2	1	C102	Engineering Mathematics – I	3.00	3.00	2.40	2.60	1.60	1.20	-	-	1.80	-	-	2.00	-	-	-
3	1	C103	Engineering Physics	2.60	1.30	1.30	1.00	0.50	1.00	1.50	1.00	-	1.00	-	1.00	-	-	-
4	1	C104	Engineering Chemistry	1.60	1.60	-	2.75	1.75	1.00	1.00	1.75	-	-	2.00	1.20	-	-	-
5	1	C105	Problem solving and python Programming	3.00	3.00	3.00	3.00	2.80	2.00	2.00	-	-	1.00	-	1.00	-	-	-
6	1	C106	Engineering Graphics	3.00	3.00	2.00	1.00	3.00	3.00	3.00	-	2.00	3.00	-	3.00	-	-	-
7	1	C107	Problem solving and python Programming Lab	2.40	2.00	2.50	2.00	2.00	1.50	2.25	1.00	1.40	1.00	1.60	2.20	-	-	-
8	1	C108	Physics and Chemistry Laboratory	3.00	3.00	3.00	3.00	3.00	2.00	2.00	-	-	1.00	2.00	1.00	-	-	-
9	1	C109	Technical English	2.00	1.67	1.75	2.67	1.50	1.50	2.00	1.40	1.00	2.00	1.33	1.50	-	-	-
10	2	C110	Engineering Mathematics – II	2.80	2.80	2.40	2.60	2.00	1.67	-	-	2.00	-	-	2.40	-	-	-
11	2	C111	Physics for Electronics Engineering	2.80	2.00	1.80	1.25	1.75	2.00	1.20	1.60	1.00	2.00	1.20	3.00	-	-	-
12	2	C112	Basic Electrical and Instrumentation Engineering	3.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00	1.40	1.00	1.00	2.60	2.20	1.60	-
13	2	C113	Circuit Analysis	2.80	2.80	2.00	2.00	2.00	2.00	1.66	-	1.67	1.67	2.00	2.50	2.20	2.00	-
14	2	C114	Electronic Devices	2.60	1.60	2.60	1.00	-	1.20	1.40	1.60	1.00	1.00	1.00	1.40	2.40	1.60	-
15	2	C115	Circuits and Devices Laboratory	3.00	2.00	3.00	1.48	1.00	1.24	1.48	1.00	-	1.00	1.48	2.00	3.00	3.00	-

16	2	C116	Engineering Practices Laboratory	1.50	2.50	2.67	-	1.25	-	-	1.00	-	-	1.25	1.80	-	-	-
17	3	C201	Linear Algebra and Partial Differential Equations	2.60	3.00	2.40	2.40	2.40	-	-	-	-	-	2.60	2.60	1.40	1.60	-
18	3	C202	Fundamentals of Data Structures in C	2.4	2.2	1.8	1.5	1.30	-	-	-	1.80	2.00	2.30	1.8	-	-	-
19	3	C203	Electronic Circuits- I	2.40	3.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.60	2.20	1.40	1.00
20	3	C204	Signals and Systems	3.00	3.00	1.00	2.00	1.00	1.00	-	-	-	-	1.00	2.60	2.20	1.00	1.00
21	3	C205	Digital Electronics	3.00	2.60	2.80	2.60	2.00	1.60	1.80	1.00	2.00	1.60	1.30	2.40	3.00	2.20	2.40
22	3	C206	Control System Engineering	2.60	3.00	2.50	2.00	2.50	2.50	-	-	-	-	-	2.00	3.00	-	-
23	3	C207	Fundamentals of Data Structures in C Lab	2.30	2.00	2.00	1.50	1.40	-	-	-	1.70	1.80	2.10	1.40	-	-	-
24	3	C208	Analog and Digital Circuits Laboratory	3.00	2.00	2.00	2.60	3.00	1.00	2.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	3.00
25	4	C210	Probability and Random Processes	2.60	3.00	2.40	2.40	1.60	1.20	-	-	2.00	-	-	1.40	1.40	1.60	-
26	4	C211	Electronic Circuits- II	2.60	1.80	2.20	2.20	-	1.80	1.20	1.75	1.75	1.80	2.00	1.60	2.80	2.20	1.60
27	4	C212	Communication Theory	2.60	2.40	2.40	1.00	1.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	3.00	2.00
28	4	C213	Electromagnetic Fields	3.00	1.00	2.00	1.00	1.00	2.00	3.00	2.00	1.00	1.00	1.00	2.00	3.00	2.00	1.00
29	4	C214	Linear Integrated Circuits	2.60	2.40	2.20	2.20	2.00	1.80	1.20	1.75	1.75	1.80	2.00	1.60	2.80	2.20	1.60
30	4	C215	Environmental Science and Engineering	1.80	1.80	2.60	1.40	2.00	1.80	2.20	1.30	2.00	2.00	-	2.25	-	-	1.25
31	4	C216	Circuit Design and Simulation Lab	3.00	2.00	2.20	2.40	3.00	2.00	-	-	2.80	2.00	-	2.00	3.00	3.00	3.00
32	4	C217	Linear Integrated Circuit Laboratory	2.25	2.40	2.80	2.60	2.25	2.00	-	-	2.00	2.50	1.75	-	3.00	2.00	2.00
33	5	C301	Digital Communication	2.70	2.20	2.60	2.40	2.40	1.80	1.40	1.00	1.60	2.00	1.80	1.80	1.25	1.60	1.20
34	5	C302	Discrete Time Signal Processing	3.00	3.00	2.00	-	3.00	-	-	-	2.00	2.00	-	-	-	3.00	-
35	5	C303	Computer Architecture and Organization	3.00	2.40	1.60	1.20	-	-	-	-	-	-	-	-	3.00	1.00	-

36	5	C304	Communication Networks	3.00	3.00	2.70	2.50	2.00	1.00	2.50	-	-	1.10	-	3.00	1.50	2.70	3.00
37	5	C305	Medical Electronics	3.00	1.80	1.80	1.40	1.40	0.60	0.80	0.60	1.00	1.00	2.00	1.40	2.00	3.00	3.00
38	5	C306	Digital Audio Engineering	3.00	3.00	3.00	-	-	-	-	-	-	-	-	-	0.80	0.40	3.00
39	5	C307	Digital Signal Processing Lab	3.00	3.00	3.00	3.00	3.00	3.00	-	-	-	-	3.00	3.00	3.00	3.00	3.00
40	5	C308	Communication System Laboratory	3.00	3.00	3.00	-	1.00	-	-	1.00	2.00	2.00	-	1.00	3.00	3.00	-
41	5	C309	Communication Networks Laboratory	3.00	2.00	2.00	1.00	2.00	-	-	1.00	2.00	2.00	-	1.00	3.00	3.00	-
42	6	C310	Microprocessors and Microcontrollers	2.00	2.00	2.00	1.00	1.00	-	-	-	-	2.00	2.00	2.00	2.00	2.00	-
43	6	C311	VLSI Design	3.00	3.00	3.00	-	2.60	3.00	-	-	2.20	-	2.80	3.00	2.80	2.40	2.80
44	6	C312	Wireless Communication	2.20	1.80	1.40	1.20	2.00	1.20	1.60	0.40	2.00	2.20	0.40	1.40	1.40	1.40	1.60
45	6	C313	Principles of Management	3.00	-	2.00	2.00	1.00	-	1.00	2.00	2.00	-	-	1.00	-	-	-
46	6	C314	Transmission Lines and RF Systems	3.00	3.00	2.40	1.60	1.20	1.20	1.40	0.40	-	1.40	-	2.60	2.40	2.40	2.60
47	6	C315	Wirless Networks	2.20	1.80	2.40	1.25	1.60	1.00	1.80	-	-	-	1.40	2.00	2.00	2.00	1.00
48	6	C316	Microprocessors and Microcontrollers Lab	3.00	3.00	3.00	3.00	-	3.00	-	-	-	0.60	3.00	3.00	3.00	-	-
49	6	C317	VLSI Design Laboratory	3.00	2.00	3.00	2.00	3.00	-	-	-	0.20	1.00	1.00	1.00	3.00	2.00	2.40
50	7	C401	Antennas and Microwave Engineering	3.00	3.00	3.00	-	2.60	-	-	-	-	3.00	3.00	3.00	3.00	3.00	3.00
51	7	C402	Optical Communications	3.00	2.00	2.00	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00
52	7	C403	Embedded and Real Time Systems	3.00	2.20	2.40	1.00	1.00	1.00	-	-	-	-	1.00	-	3.00	1.40	1.60
53	7	C404	Ad hoc and Wireless Sensors Networks	1.70	2.30	2.30	3.00	-	-	-	-	-	-	-	-	2.00	2.00	3.00
54	7	C405	Cognitive Radio	2.60	1.80	2.00	1.40	1.60	0.25	-	-	-	-	0.20	-	1.00	1.00	1.40
55	7	C406	Industrial Safety	2.40	2.20	2.40	2.20	1.60	1.80	-	-	-	1.60	1.50	1.80	1.80	1.60	1.20

56	7	C407	Embedded Laboratory	3.00	2.20	2.40	1.00	1.00	1.00	-	-	-	-	1.00	-	3.00	1.40	1.60
57	7	C408	Advanced Communication Laboratory	3.00	3.00	3.00	-	-	-	-	-	-	-	-	-	3.00	3.00	-
58	8	C409	Low Power SOC	3.00	3.00	3.00	-	2.60	3.00	-	-	2.40	-	2.80	3.00	2.80	2.60	2.80
59	8	C410	Satellite Communication	3.00	2.00	2.00	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00
60	8	C411	Project Work	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Total				160.65	141.24	136.12	96.80	94.20	70.86	48.72	33.05	56.67	64.57	66.81	98.52	105.35	87.30	65.05
Average				2.68	2.39	2.31	1.94	1.85	1.65	1.68	1.27	1.67	1.70	1.71	2.01	2.45	2.08	2.10
Direct Assessment - 80%				2.14	1.91	1.85	1.55	1.48	1.32	1.34	1.02	1.34	1.36	1.37	1.61	1.96	1.66	1.68
Indirect Assessment - 20%				0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Target Level				2.74	2.51	2.45	2.15	2.08	1.92	1.94	1.62	1.94	1.96	1.97	2.21	2.56	2.26	2.28

*N. Sra*  
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H.O.D./ECE 2





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POs and PSOs Attainment through Direct and Indirect Assessment-ATTAINMENT

S.No.	SEM	Course Code	COURSE TITLE	PROGRAM OUTCOMES												PROGRAM SPECIFIC OUTCOMES		
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	1	C101	Communicative English	1.00	1.67	1.00	1.50	1.00	1.00	1.33	1.50	1.20	1.50	1.00	1.67	-	-	-
2	1	C102	Engineering Mathematics - I	1.72	1.72	1.38	1.49	0.92	0.69	-	-	1.03	-	-	1.15	-	-	-
3	1	C103	Engineering Physics	1.49	0.72	0.76	0.57	1.50	0.57	1.50	-	-	1.00	-	0.57	-	-	-
4	1	C104	Engineering Chemistry	1.14	0.91	-	1.14	1.03	0.80	0.91	0.57	-	-	0.68	1.20	-	-	-
5	1	C105	Problem solving and python Programming	2.00	2.00	2.00	2.00	1.80	1.30	1.30			0.66		0.66	-	-	-
6	1	C106	Engineering Graphics	1.72	1.72	1.15	0.57	1.72	1.72	1.72	-	1.15	1.72	-	1.72	-	-	-
7	1	C107	Problem solving and python Programming Lab	2.40	2.00	2.50	2.00	2.00	1.50	2.25	1.00	1.40	1.00	1.60	2.20	-	-	-
8	1	C108	Physics and Chemistry Laboratory	3.00	3.00	3.00	3.00	3.00	2.00	2.00	-	-	1.00	2.00	1.00	-	-	-
9	1	C109	Technical English	2.00	1.67	1.75	2.67	1.50	1.50	2.00	1.40	1.00	2.00	1.33	1.50	-	-	-
10	2	C110	Engineering Mathematics - II	2.80	2.80	2.40	2.60	2.00	1.67	-	-	2.00	-	-	2.40	-	-	-
11	2	C111	Physics for Electronics Engineering	2.80	2.00	1.80	1.25	1.75	2.00	1.20	1.60	1.00	2.00	1.20	3.00	-	-	-
12	2	C112	Basic Electrical and Instrumentation Engineering	3.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00	1.40	1.00	1.00	2.60	2.20	1.60	-
13	2	C113	Circuit Analysis	2.80	2.80	2.00	2.00	2.00	2.00	1.66	-	1.67	1.67	2.00	2.50	2.20	2.00	-
14	2	C114	Electronic Devices	2.60	1.60	2.60	1.00	-	1.20	1.40	1.60	1.00	1.00	1.00	1.40	2.40	1.60	-
15	2	C115	Circuits and Devices Laboratory	3.00	2.00	3.00	1.48	1.00	1.24	1.48	1.00	-	1.00	1.48	2.00	3.00	3.00	-
16	2	C116	Engineering Practices Laboratory	1.50	2.50	2.67	-	1.25	-	-	1.00	-	-	1.25	1.80	-	-	-
17	3	C201	Linear Algebra and Partial Differential Equations	2.60	3.00	2.40	2.40	2.40	-	-	-	-	-	2.60	2.60	1.40	1.60	-
18	3	C202	Fundamentals of Data Structures in C	2.4	2.2	1.8	1.5	1.30	-	-	-	1.80	2.00	2.30	1.8	-	-	-
19	3	C203	Electronic Circuits- I	2.40	3.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.60	2.20	1.40	1.00
20	3	C204	Signals and Systems	3.00	3.00	1.00	2.00	1.00	1.00	-	-	-	-	1.00	2.60	2.20	1.00	1.00
21	3	C205	Digital Electronics	3.00	2.60	2.80	2.60	2.00	1.60	1.80	1.00	2.00	1.60	1.30	2.40	3.00	2.20	2.40



22	3	C206	Control System Engineering	2.60	3.00	2.50	2.00	2.50	2.50	-	-	-	-	-	2.00	3.00	-	-
23	3	C207	Fundamentals of Data Structures in C Lab	2.30	2.00	2.00	1.50	1.40	-	-	-	1.70	1.80	2.10	1.40	-	-	-
24	3	C208	Analog and Digital Circuits Laboratory	3.00	2.00	2.00	2.60	3.00	1.00	2.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	3.00
25	4	C210	Probability and Random Processes	2.60	3.00	2.40	2.40	1.60	1.20	-	-	2.00	-	-	1.40	1.40	1.60	-
26	4	C211	Electronic Circuits- II	2.60	1.80	2.20	2.20	-	1.80	1.20	1.75	1.75	1.80	2.00	1.60	2.80	2.20	1.60
27	4	C212	Communication Theory	2.60	2.40	2.40	1.00	1.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	3.00	2.00
28	4	C213	Electromagnetic Fields	3.00	1.00	2.00	1.00	1.00	2.00	3.00	2.00	1.00	1.00	1.00	2.00	3.00	2.00	1.00
29	4	C214	Linear Integrated Circuits	2.60	2.40	2.20	2.20	2.00	1.80	1.20	1.75	1.75	1.80	2.00	1.60	2.80	2.20	1.60
30	4	C215	Environmental Science and Engineering	1.80	1.80	2.60	1.40	2.00	1.80	2.20	1.30	2.00	2.00	-	2.25	-	-	1.25
31	4	C216	Circuit Design and Simulation Lab	3.00	2.00	2.20	2.40	3.00	2.00	-	-	2.80	2.00	-	2.00	3.00	3.00	3.00
32	4	C217	Linear Integrated Circuit Laboratory	2.25	2.40	2.80	2.60	2.25	2.00	-	-	2.00	2.50	1.75	-	3.00	2.00	2.00
33	5	C301	Digital Communication	2.70	2.20	2.60	2.40	2.40	1.80	1.40	1.00	1.60	2.00	1.80	1.80	1.25	1.60	1.20
34	5	C302	Discrete Time Signal Processing	3.00	3.00	2.00	-	3.00	-	-	-	2.00	2.00	-	-	-	3.00	-
35	5	C303	Computer Architecture and Organization	3.00	2.40	1.60	1.20	-	-	-	-	-	-	-	-	3.00	1.00	-
36	5	C304	Communication Networks	3.00	3.00	2.70	2.50	2.00	1.00	2.50	-	-	1.10	-	3.00	1.50	2.70	3.00
37	5	C305	Medical Electronics	3.00	1.80	1.80	1.40	1.40	0.60	0.80	0.60	1.00	1.00	2.00	1.40	2.00	3.00	3.00
38	5	C306	Digital Audio Engineering	3.00	3.00	3.00	-	-	-	-	-	-	-	-	-	0.80	0.40	3.00
39	5	C307	Digital Signal Processing Lab	3.00	3.00	3.00	3.00	3.00	3.00	-	-	-	-	3.00	3.00	3.00	3.00	3.00
40	5	C308	Communication System Laboratory	3.00	3.00	3.00	-	1.00	-	-	1.00	2.00	2.00	-	1.00	3.00	3.00	-
41	5	C309	Communication Networks Laboratory	3.00	2.00	2.00	1.00	2.00	-	-	1.00	2.00	2.00	-	1.00	3.00	3.00	-
42	6	C310	Microprocessors and Microcontrollers	2.00	2.00	2.00	1.00	1.00	-	-	-	-	2.00	2.00	2.00	2.00	2.00	-
43	6	C311	VLSI Design	3.00	3.00	3.00	-	2.60	3.00	-	-	2.20	-	2.80	3.00	2.80	2.40	2.80
44	6	C312	Wireless Communication	2.20	1.80	1.40	1.20	2.00	1.20	1.60	0.40	2.00	2.20	0.40	1.40	1.40	1.40	1.60
45	6	C313	Principles of Management	3.00	-	2.00	2.00	1.00	-	1.00	2.00	2.00	-	-	1.00	-	-	-
46	6	C314	Transmission Lines and RF Systems	3.00	3.00	2.40	1.60	1.20	1.20	1.40	0.40	-	1.40	-	2.60	2.40	2.40	2.60
47	6	C315	Wirless Networks	2.20	1.80	2.40	1.25	1.60	1.00	1.80	-	-	-	1.40	2.00	2.00	2.00	1.00

48	6	C316	Microprocessors and Microcontrollers Lab	3.00	3.00	3.00	3.00	-	3.00	-	-	-	0.60	3.00	3.00	3.00	-	-
49	6	C317	VLSI Design Laboratory	3.00	2.00	3.00	2.00	3.00	-	-	-	0.20	1.00	1.00	1.00	3.00	2.00	2.40
50	7	C401	Antennas and Microwave Engineering	3.00	3.00	3.00	-	2.60	-	-	-	-	3.00	3.00	3.00	3.00	3.00	3.00
51	7	C402	Optical Communications	3.00	2.00	2.00	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00
52	7	C403	Embedded and Real Time Systems	3.00	2.20	2.40	1.00	1.00	1.00	-	-	-	-	1.00	-	3.00	1.40	1.60
53	7	C404	Ad hoc and Wireless Sensors Networks	1.70	2.30	2.30	3.00	-	-	-	-	-	-	-	-	2.00	2.00	3.00
54	7	C405	Cognitive Radio	2.60	1.80	2.00	1.40	1.60	0.25	-	-	-	-	0.20	-	1.00	1.00	1.40
55	7	C406	Industrial Safety	2.00	2.00	2.10	2.00	1.60	1.80	-	-	-	1.60	1.50	1.80	1.80	1.60	1.20
56	7	C407	Embedded Laboratory	3.00	2.20	2.40	1.00	1.00	1.00	-	-	-	-	1.00	-	3.00	1.40	1.60
57	7	C408	Advanced Communication Laboratory	3.00	3.00	3.00	-	-	-	-	-	-	-	-	-	3.00	3.00	-
58	8	C409	Low Power SOC	3.00	3.00	3.00	-	2.60	3.00	-	-	2.40	-	2.80	3.00	2.80	2.60	2.80
59	8	C410	Satellite Communication	3.00	2.00	2.00	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00
60	8	C411	Project Work	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
TOTAL				155.12	136.21	132.41	92.02	91.52	67.73	46.66	30.87	55.05	62.95	65.49	95.62	105.35	87.30	65.05
Average				2.59	2.31	2.24	1.84	1.79	1.58	1.61	1.23	1.62	1.66	1.68	1.95	2.45	2.08	2.1
Direct Assessment - 80%				2.07	1.85	1.79	1.47	1.43	1.26	1.29	0.98	1.30	1.33	1.34	1.56	1.96	1.66	1.68
Indirect Assessment - 20%				0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Attainment Level				2.67	2.45	2.39	2.07	2.03	1.86	1.89	1.58	1.90	1.93	1.94	2.16	2.56	2.26	2.28

*N. K. S.*  
Academic Coordinator

*G. P. S.*  
H.O.D./ECE 2

