Integral University, Lucknow
Department of Electrical Engg.
Study and Evaluation Scheme

Program: B. Tech. (Electrical & Computer Science Engg.)

Semester V

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/ sem			Evaluation Scheme				Sub. Total	Credit	Total Credits	Attributes							
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	United Nations Sustainable Development Goals (SDGs)
THEORIES																					
1	EE301	Control System	Core	3	1	0	40	20	60	40	100	3:1:0	4	√							4
2	EE303	Power Electronics	Core	3	1	0	40	20	60	40	100	3:1:0	4	√		√					4
3	EE307	Power System I	Core	3	1	0	40	20	60	40	100	3:1:0	4	√							4,7,8,9,11
4	CS303	Principles of Operating System	Core	3	1	0	40	20	60	40	100	3:1:0	4								4,9
5	CS340	Software Engineering	Core	3	1	0	40	20	60	40	100	2:1:0	4								4,9
6		Departmental Elective -II	Elective	3	1	0	40	20	60	40	100	3:1:0	4								
PRACTICAL																					
7	EE302	Control System Lab	Core	0	0	2	40	20	60	40	100	0:0:2	1	√		√					4
8	EE304	Power Electronics Lab	Core	0	0	2	40	20	60	40	100	0:0:2	1	√		√					4
9	CS399	Mini Project-1	Core	0	0	2	40	20	60	40	100	0:0:2	1								4
			Total	**18**	**6**	**6**	**360**	**180**	**540**	**360**	**900**		**27**								

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Program: B. Tech. (Electrical & Computer Science Engg.)

SemesterVI

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/ sem			Evaluation Scheme				Sub. Total	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs)
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	EE311	Power System II	Core	3	1	0	40	20	60	40	100	3:1:0	4	√							4,7,8,9,11
2	EE335	Industrial Automation	Core	3	1	0	40	20	60	40	100	3:1:0	4	√		√					7,8,9,11
3	CS305	Computer Networks	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					4,9
4		Departmental Elective -III	Elective	3	1	0	40	20	60	40	100	3:1:0	4								
5		Departmental Elective –IV	Elective	2	1	0	40	20	60	40	100	2:1:0	3								
6		Open Elective-1	Open Elective	3	1	0	40	20	60	40	100	3:1:0	4								
PRACTICAL																					
7	EE312	Power System Lab	Core	0	0	2	40	20	60	40	100	0:0:2	1			√					7,8,9,11
8	EE336	Automation Lab	Core	0	0	2	40	20	60	40	100	0:0:2	1	√		√					9
9	CS306	Computer Networks Lab	Core	0	0	2	40	20	60	40	100	0:0:2	1	√	√	√					4,9
10	EE352	Comprehensive Annual Assessment-2	Core	-	-	-	-	-	100	-	100	0:0:0	1	√	√	√					4
Total				**17**	**6**	**6**	**360**	**180**	**640**	**360**	**1000**		**27**								

List of Electives

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs)
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
Departmental Elective I																					
1	EE213	Numerical Analysis & Applications	DE 1	3	1	0	40	20	60	40	100	3:1:0	4			√					4
	EE221	Electrical Engineering Materials	DE 1	3	1	0	40	20	60	40	100	3:1:0	4	√							9
	EE222	Probability Foundations for Electrical Engineers	DE 1	3	1	0	40	20	60	40	100	3:1:0	4			√					9
	EE224	Illumination Engineering	DE 1	3	1	0	40	20	60	40	100	3:1:0	4	√		√		√			9
	CS206	Discrete Structure	DE 1	3	1	0	40	20	60	40	100	3:1:0	4			√					4
	CS207	Computer Graphics	DE 1	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					4,9
	CS270	Object Oriented Concepts using Java	DE 1	3	1	0	40	20	60	40	100	3:1:0	4	√		√					4,9
	CS281	Graph Theory and Applications	DE 1	3	1	0	40	20	60	40	100	3:1:0	4			√					4
Departmental Elective II																					
2	EE323	Process Instrumentation	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√		√					9
	EE325	Conventional & CAD of Electrical Machines	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√		√					9
	EE331	Modern Power System	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√							7,8,9,11
	EE333	Advance Control System	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√		√					9
	EE345	Power Electronics based Converters Design	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					9
	EE347	Modeling and Dynamic analysis of Electrical Machines	DE 2	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					9
Departmental Elective III																					
3	CS311	Software Project & Quality Management	DE 3	3	1	0	40	20	60	40	100	3:1:0	4	√		√					4
	CS320	Real-Time System	DE 3	3	1	0	40	20	60	40	100	3:1:0	4			√					4

	CS334	Cloud Computing	DE 3	3	1	0	40	20	60	40	100	3:1:0	4			√					4,9,11
	CS341	Introduction to IoT	DE 3	3	1	0	40	20	60	40	100	3:1:0	4			√					4,9
Departmental Elective IV																						
4	EE351	Sensor and Instrumentation	DE 4	2	1	0	40	20	60	40	100	2:1:0	3	√	√	√					9
	EE352	Power Plant Instrumentation	DE 4	2	1	0	40	20	60	40	100	2:1:0	3	√		√					9
	EE355	Nuclear & Advance Power Generation Technology	DE 4	2	1	0	40	20	60	40	100	2:1:0	3	√		√					9
	EE357	Biomedical Engineering	DE 4	2	1	0	40	20	60	40	100	2:1:0	3	√	√	√					4,9
Departmental Elective V																						
5	CS410	Distributed System	DE 5	3	1	0	40	20	60	40	100	3:1:0	4			√					4
	CS412	Cryptography and Network Security	DE 5	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					4,9
	CS417	Mobile computing	DE 5	3	1	0	40	20	60	40	100	3:1:0	4			√					4
	CS418	Data warehousing and Data Mining	DE 5	3	1	0	40	20	60	40	100	3:1:0	4			√					4,11,12
	CS419	Pattern Recognition	DE 5	3	1	0	40	20	60	40	100	3:1:0	4			√					4
Departmental Elective VI																						
6	EE405	Smart Grid Topologies	DE 6	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					4,9,11
	EE425	EHVAC & EHVDC Transmission	DE 6	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					9
	EE433	Power Quality & Mitigation	DE 6	3	1	0	40	20	60	40	100	3:1:0	4			√					9
	EE445	Electrical System and Substation Design	DE 6	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					9
	EE447	Electric Vehicles	DE 6	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					9,13