

ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES (AUTONOMOUS)
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING - CURRICULUM
REGULATIONS – R19

1st Year												
Semester - I												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE111	Engineering Mathematics – I	BS	3	0	0	1	6	10	40	60	100	3
EEE112	Engineering Physics	BS	3	0	0	1	4	8	40	60	100	3
EEE113	Engineering Chemistry	BS	3	0	0	1	4	8	40	60	100	3
EEE114	Engineering Drawing	ES	2	0	3	1	2	8	40	60	100	3.5
EEE115	Digital Logic Design	PC	2	1	0	1	5	9	40	60	100	3
EEE116	Engineering Physics Laboratory	BS	0	0	3	0	1	4	50	50	100	1.5
EEE117	Engineering Chemistry Laboratory	BS	0	0	3	0	1	4	50	50	100	1.5
EEE118	Engineering Workshop	ES	0	0	3	0	1	4	50	50	100	1.5
EEE119	Human Values and Professional Ethics (Mandatory non-credit course)	HS	3	0	0	0	1	4	50	0	50	-
Total			16	1	12	5	25	59	400	450	850	20

Semester - II												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE121	Engineering Mathematics-II	BS	3	0	0	1	6	10	40	60	100	3
EEE122	Communicative English	HS	3	0	0	1	3	7	40	60	100	3
EEE123	Basics of Electronics Engineering (BEE)	ES	3	0	0	1	5	9	40	60	100	3
EEE124	Fundamentals of Electrical Engineering (FEE)	ES	2	1	0	1	5	9	40	60	100	3
EEE125	Problem solving with C	ES	3	0	0	0	3	6	40	60	100	3
EEE126	Language Laboratory	HS	0	0	3	0	1	4	50	50	100	1.5
EEE127	Problem solving with C– Laboratory	ES	0	0	3	0	3	6	50	50	100	1.5
EEE128	Environmental Science (Mandatory non-credit course)	BS	3	0	0	0	1	4	50	0	50	-
Total			17	1	6	4	27	55	350	400	750	18

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2nd Year												
Semester - I												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE211	Engineering Mathematics – III	BS	3	0	0	1	5	9	40	60	100	3
EEE212	Engineering Mechanics & Strength of Materials	ES	2	1	0	1	5	9	40	60	100	3
EEE213	Network Theory	PC	2	1	0	1	5	9	40	60	100	3
EEE214	Electrical Measurements	PC	3	0	0	1	5	9	40	60	100	3
EEE215	Electronics Circuits and Analysis	PC	3	0	0	1	4	8	40	60	100	3
EEE216	Microprocessors and Micro Controllers	PC	3	0	0	1	4	8	40	60	100	3
EEE217	Networks & Measurements Laboratory	PC	0	0	3	0	1	4	50	50	100	1.5
EEE218	Electronics Laboratory -I	PC	0	0	3	0	1	4	50	50	100	1.5
Total			16	2	6	6	30	60	340	460	800	21

Semester - II												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE221	Engineering Mathematics – IV	BS	3	0	0	1	6	10	40	60	100	3
EEE222	Thermo Dynamics and Mechanics of Fluids	ES	2	1	0	1	5	9	40	60	100	3
EEE223	Signals & Systems	PC	3	0	0	1	4	8	40	60	100	3
EEE224	Electromagnetics	PC	3	0	0	1	4	8	40	60	100	3
EEE225	Performance of DC Machines and Transformers	PC	2	1	0	1	5	9	40	60	100	3
EEE226	Electrical Power Generation and Utilization	PC	3	0	0	1	4	8	40	60	100	3
EEE227	Thermo Dynamics & Mechanics of Fluids Laboratory	ES	0	0	3	0	1	4	50	50	100	1.5
EEE228	Digital Electronics, Micro Processors and Controllers Laboratory	PC	0	0	3	0	1	4	50	50	100	1.5
Total			16	2	6	6	30	60	340	460	800	21

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3 rd Year												
Semester - I												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE311	Open Elective-I	OE	3	0	0	1	3	7	40	60	100	3
EEE312	Professional Elective –I	PE	3	0	0	1	3	7	40	60	100	3
EEE313	Pulse, Digital and Integrated Circuits	PC	3	0	0	1	3	7	40	60	100	3
EEE314	Linear Control Systems	PC	2	1	0	1	3	7	40	60	100	3
EEE315	Performance of Induction and Synchronous Machines	PC	2	1	0	1	3	7	40	60	100	3
EEE316	Power Transmission and Distribution	PC	2	1	0	1	3	7	40	60	100	3
EEE317	Quantitative Aptitude -I/ Verbal Aptitude-I	HS	0	0	3	0	3	6	100	0	100	1.5
EEE318	Electrical Machines Laboratory - I	PC	0	0	3	0	2	5	50	50	100	1.5
EEE319	Electronics Laboratory –II	PC	0	0	3	0	2	5	50	50	100	1.5
Total			15	3	9	6	25	58	440	460	900	22.5

Open Elective –I
1. Python
2. Computer Architecture and Organization
3. JAVA

Professional Elective –I
1. Renewable Energy Technologies
2. VLSI
3. Embedded Systems

Semester - II												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE321	Open Elective-II	OE	3	0	0	1	2	6	40	60	100	3
EEE322	Professional Elective –II	PE	3	0	0	1	3	7	40	60	100	3
EEE323	Professional Elective –III	PE	3	0	0	1	3	7	40	60	100	3
EEE324	Power Electronics	PC	3	0	0	1	5	9	40	60	100	3
EEE325	Power System Analysis	PC	2	1	0	1	6	10	40	60	100	3
EEE326	Advanced Control Systems	PC	2	1	0	1	6	10	40	60	100	3
EEE327	Quantitative Aptitude -II / Soft Skills	HS	0	0	3	0	2	5	100	0	100	1.5
EEE328	Control Systems Lab	PC	0	0	3	0	1	4	50	50	100	1.5
EEE329	Electrical Machines Lab – II	PC	0	0	3	0	1	4	50	50	100	1.5
Total			16	2	9	6	29	62	440	460	900	22.5

Open Elective –II
1. Competitive Programming
2. Internet of Things
3. Robotics

Professional Elective –II
1. Electrical Drives and Traction
2. Digital Control Systems
3. Digital Signal Processing

Professional Elective –III
1. Optimization Techniques
2. Electrical Machine Design
3. ANN & Fuzzy Systems

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4 th Year												
Semester - I												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE411	Open Elective-III	OE	3	0	0	1	2	6	40	60	100	3
EEE412	Professional Elective –IV	PE	3	0	0	1	2	6	40	60	100	3
EEE413	Professional Elective –V	PE	3	0	0	1	2	6	40	60	100	3
EEE414	Power System Protection	PC	3	0	0	1	5	9	40	60	100	3
EEE415	Design Thinking	SC	2	0	2	0	0	4	0	0	0	0
EEE416	Power Electronics Laboratory	PC	0	0	3	0	1	4	50	50	100	1.5
EEE417	Power Systems Simulation Laboratory	PC	0	0	3	0	1	4	50	50	100	1.5
EEE418	Project -I	PR	0	0	3	0	1	4	60	0	60	2
EEE419	Summer Internship	PR	0	0	0	0	1	1	100	0	100	1
Total			12	0	9	4	15	40	420	340	760	18

Open Elective-III	
S. No.	Infosys Springboard Courses
1.	Computational Problem Solving
2.	Programming Fundamentals using Python - Part 1
3.	Python - The Practical and Hands-on approach
4.	Data Structures and Algorithms: The Complete Master class
5.	Data Structures and Algorithms using Python - Part 1
6.	Machine Learning, NLP & Python
7.	Data Analysts Toolbox: Excel, Python, Power BI
8.	Advanced Python Concepts
9.	Programming Fundamentals using Python - Science Graduates - Foundation Program
10.	Hands-On Deep Learning on Artificial Neural Networks
11.	Learn Python and Ethical Hacking from Scratch
12.	Data Structures and Algorithms using Java

Professional Elective –IV
1. Energy Management and Control
2. Nonlinear Systems
3. Control & Instrumentation
4. Electrical Engineering Drawing

Professional Elective – V
1. Electric Hybrid Vehicles
2. Electrical Machine Design
3. Power Semiconductor Drives
4. AI Techniques in Electrical Engineering
5. Process Control & Automation

Semester - II												
Course Code	Title of the course	Category	Periods						Sessional Marks	Semester end Exam marks	Total Marks	Credits
			L	T	P	E	O	Total				
EEE421	Open Elective-IV	OE	3	0	0	1	2	6	0	0	100	3
EEE422	Engineering Economics and Management	HS	3	0	0	0	1	4	40	60	100	3
EEE423	Professional Elective –VI	PE	3	0	0	1	2	6	40	60	100	3
EEE424	Research Methodology	SC	2	0	0	0	0	2	0	0	0	0
EEE425	Comprehensive Viva	PR	0	0	0	0	1	1	0	100	100	2
EEE426	Project - II	PR	0	0	9	0	2	11	60	80	140	6
Total			9	0	9	2	8	28	140	300	540	17

Open Elective-IV	
S. No.	Infosys Springboard Courses
1.	Computational Problem Solving
2.	Programming Fundamentals using Python - Part 1
3.	Python - The Practical and Hands-on approach
4.	Data Structures and Algorithms: The Complete Master class
5.	Data Structures and Algorithms using Python - Part 1
6.	Machine Learning, NLP & Python
7.	Data Analysts Toolbox: Excel, Python, Power BI
8.	Advanced Python Concepts
9.	Programming Fundamentals using Python - Science Graduates - Foundation Program
10.	Hands-On Deep Learning on Artificial Neural Networks
11.	Learn Python and Ethical Hacking from Scratch
12.	Data Structures and Algorithms using Java

Professional Elective –VI
1. HVDC & FACTS
2. Smart Grid
3. Advanced Power Electronic Converters
4. Sliding Mode Control
5. Electrical Installation, Estimation & Cost