

Course Structure

B. TECH. FIRST SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Th/Lab Marks	Sessional		Total	Credit
					Test	Assig/Att.		
1	RAS103	Engineering Maths-I	3---1---0	70	20	10	100	4
2	RAS101	Engineering Physics-I	3---1---0	70	20	10	100	4
3	REE101/ RME101	Basic Electrical Engg/ Elements of Mechanical Engg	3---1---0	70	20	10	100	4
4	RAS 104/ RCS101	Professional Communication/ Computer System & Programming in	3---0---0	70	20	10	100	3
5	REC101/ RAS102	Basic Electronics/ Engineering Chemistry	3---1---0	70	20	10	100	4
6	RAS151/ RAS152	Engg. Physics Lab/ Engg. Chemistry Lab	0---0---2	50		50	100	1
7	REE151/ RME151	Basic Electrical Engg Lab/ Elements of Mechanical Engg Lab	0---0---2	50		50	100	1
8	RAS 154/ RCS151	Professional Lab/ Communication Lab/ Computer Prog. Lab	0---0---2	50		50	100	1
9	RME152/ RCE151	Workshop Practice/ Computer Aided Engg.	0---0---3	50		50	100	2
	TOTAL						900	24

B. TECH. SECOND SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Th/Lab Marks	Sessional		Total	Credit
					Test	Assig/Att.		
1	RAS203	Engineering Maths-II	3---1---0	70	20	10	100	4
2	RAS201	Engineering Physics-II	3---1---0	70	20	10	100	4
3	RME201/ REE201	Elements of Mechanical Engg/ Basic Electrical Engg	3---1---0	70	20	10	100	4
4	RCS201/ RAS 204	Computer System & Programming in C/ Professional	3---0---0	70	20	10	100	3
5	RAS202/ REC201	Engineering Chemistry/ Basic Electronics	3---1---0	70	20	10	100	4
6	RAS252/ RAS251	Engg. Chemistry Lab/ Engg. Physics Lab	0---0---2	50		50	100	1
7	RME251/ REE251	Elements of Mechanical Engg Lab/ Basic Electrical Engg Lab	0---0---2	50		50	100	1
8	RCS251/ RAS 254	Computer Progm. Lab/ Professional Communication Lab	0---0---2	50		50	100	1
9	RCE251/ RME252	Computer Aided Engg. Graphics/ Workshop	0---0---3	50		50	100	2
	TOTAL						900	24

B. TECH. THIRD SEMESTER

Sl. No.	COURSE NO	SUBJECT	PERIOD			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL EVALUATION			EXAM ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECTS											
1	NAS-301/- NOE 031-039	Mathematics III/Science Based Open Elective	3	1	0	30	20	50	100	150	4
2	NME-309	Thermal & Hydraulic Machines	3	1	0	30	20	50	100	150	4
3	NEE-301	Electro-Mechanical Energy Conversion-I	3	1	0	30	20	50	100	150	4
4	NEE-302	Electrical Measurement & Measuring Instruments	3	1	0	30	20	50	100	150	4
5	NEE-303	Basic System Analysis	2	1	0	15	10	25	50	75	3
6	NHU301/ NHU302	Industrial Psychology/ Industrial Sociology	2	0	0	15	10	25	50	75	2
7	AUC-001/ AUC-002	<i>Human Values & Professional Ethics/ Cyber Security</i>	2	0	0	15	10	25	50	75*	
PRACTICAL / DESIGN / DRAWING											
8	NME-359	Thermal & Hydraulic Machines Lab	0	0	3	10	10	20	30	50	1
9	NEE-351	Electromechanical Energy Conversion- I Lab	0	0	3	10	10	20	30	50	1
10	NEE-352	Electrical Measurement Lab	0	0	2	10	10	20	30	50	1
11	NEE-353	Numerical Technique Lab	0	0	2	10	10	20	30	50	1
12	NGP-301	General Proficiency Lab	-	-	-	-	-	50	-	50	
		Total	17	5	7					1000	25

B. TECH.FOURTH SEMESTER

Sl. No.	COURSE NO	SUBJECT	PERIOD			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL EVALUATION			EXAM ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECTS											
1	NOE 041-049/ NAS-401	Science Based Open Elective/ Mathematics III	3	1	0	30	20	50	100	150	4
2	NEC-409	Analog & Digital Electronics	3	1	0	30	20	50	100	150	4
3	NEE-401	Electro-Mechanical Energy Conversion–II	3	1	0	30	20	50	100	150	4
4	NEE-402	Network Analysis and Synthesis	3	1	0	30	20	50	100	150	4
5	NEE-403	Instrumentation & Process Control	2	1	0	15	10	25	50	75	3
6	NHU401/ NHU402	Industrial Psychology /Industrial Sociology	2	0	0	15	10	25	50	75	2
7	AUC-002/ AUC-001	<i>Cyber Security/ Human Values & Professional Ethics</i>	2	0	0	15	10	25	50	75*	-
PRACTICAL / DESIGN / DRAWING											
8	NEC-459	Electronics Lab	0	0	3	10	10	20	30	50	1
9	NEE-451	Electro-Mechanical Energy Conversion – II Laboratory	0	0	3	10	10	20	30	50	1
10	NEE-452	Network Lab	0	0	2	10	10	20	30	50	1
11	NEE-453	Electrical Instrumentation Lab	0	0	2	10	10	20	30	50	1
12	NGP-401	General Proficiency	-	-	-			50	-	50	
		Total	16	5	10					1000	25

B. TECH.FIFTH SEMESTER

S. No	Subject Code	Name of the Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Assessment			ESE		
						CT	T A	Total			
THEORY SUBJECT											
1	NEE-501	Elements Of Power System	3	1	0	30	20	50	100	150	4
2	NEE 502	Power Electronics	3	1	0	30	20	50	100	150	4
3	NEE-503	Control System	3	1	0	30	20	50	100	150	4
4	NEE-504	Microprocessor & Its Applications	3	1	0	30	20	50	100	150	4
5	NEC-508	Fundamentals of E.M. Theory	2	1	0	15	10	25	50	75	3
6	NHU-501	Engineering Economics	2	0	0	15	10	25	50	75	2
PRACTICAL / DESIGN / DRAWING											
7	NEE-551	Power Electronics Lab	0	0	3	10	10	20	30	50	1
8	NEE 552	Control System Lab	0	0	3	10	10	20	30	50	1
9	NEE-553	Microprocessor Lab	0	0	2	10	10	20	30	50	1
10	NEE 554	Simulation Based Minor Project	0	0	2	10	10	20	30	50	1
11	NGP 501	GP						50		50	1
		TOTAL	16	5	10					1000	26

B. TECH. SIXTH SEMESTER

S. No	Subject Code	Name of the Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Assessment			ESE		
						CT	T A	Total			
THEORY SUBJECT											
1	NEE-601	Power System Analysis	3	1	0	30	20	50	100	150	4
2	NEE 602	Switchgear & Protection	3	1	0	30	20	50	100	150	4
3	NEN-603/ NEC- 501	Integrated Circuits	3	1	0	30	20	50	100	150	4
4	NEN-011- NEN- 014	Departmental Elective-I	3	1	0	30	20	50	100	150	4
5	NEN-021 NEN- 024	Departmental Elective-II	2	1	0	15	10	25	50	75	3
6	NHU-601	Industrial Management	2	0	0	15	10	25	50	75	2
PRACTICAL / DESIGN / DRAWING											
7	NEE-551	Power Electronics Lab	0	0	3	10	10	20	30	50	1
8	NEE 552	Control System Lab	0	0	3	10	10	20	30	50	1
9	NEE-553	Microprocessor Lab	0	0	2	10	10	20	30	50	1
10	NEE 554	Simulation Based Minor Project	0	0	2	10	10	20	30	50	1
11	NGP 501	GP						50		50	1
TOTAL			16	5	10					1000	26

Elective-I

- NEN – 011: Digital Control System
- NEN – 012: Fundamentals of Digital Signal Processing
- NEN – 013: Neural Networks and Fuzzy System
- NEN – 014: Special Electrical Machine

Elective-II

- NEN – 021: VLSI Design
- NEN – 022: Wireless Communication
- NEN – 023: Antenna and Wave Propagation
- NEN – 024: Mechatronics

B. TECH. SEVENTH SEMESTER

S.NO.	SUBJECT CODE	NAME OF THE SUBJECT	PERIODS			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL ASSESMENT			ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECT											
1	NEN-701	ELECTRIC DRIVES	3	1	0	30	20	50	100	150	4
2	NEN-702	POWER STATION PRACTICE	3	1	0	30	20	50	100	150	4
3	NEC-702A	ANALOG & DIGITAL COMMUNICATION	3	1	0	30	20	50	100	150	4
4	NEN-031-033, NCS-039	DEPARTMENTAL ELECTIVE-III	3	1	0	30	20	50	100	150	4
5	NOE-071 - NOE-074	OPEN ELECTIVE-I	3	1	0	30	20	50	100	150	4
PRACTICAL / DESIGN / DRAWING											
6	NEN-751	POWER SYSTEM LAB	0	0	3	10	10	20	30	50	1
7	NEC-752B	ADC LAB	0	0	3	10	10	20	30	50	1
8	NEN-753	INDUSTRIAL TRAINING	0	0	2	30	20	50	--	50	1
9	NEN-754	PROJECT	0	0	2	30	20	50	--	50	1
10	NGP-701	GP					50	50		50	1
		TOTAL	15	5	10					1000	25

LIST OF DEPARTMENTAL ELECTIVE-III

NEN-031 POWER SYSTEM OPERATION AND CONTROL
 NEN-032 ADVANCED MICROPROCESSORS AND MICROCONTROLLERS
 NEN-033 FLEXIBLE AC TRANSMISSION SYSTEMS
 NCS-039 OBJECT ORIENTED SYSTEMS AND C++

LIST OF OPEN ELECTIVE-I

NOE-071 ENTREPRENEURSHIP DEVELOPMENT
 NOE-072 QUALITY MANAGEMENT
 NOE-073 OPERATIONS RESEARCH
 NOE-074 INTRODUCTION TO BIO TECHNOLOGY

B. TECH. EIGHTH SEMESTER

S. NO.	SUBJECT CODE	NAME OF THE SUBJECT	PERIODS			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL ASSESMENT			ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECT											
1	NEE-801	ELECTRICAL & ELECTRONICS ENGINEERING MATERIALS	3	1	0	30	20	50	100	150	3
2	NEC-802	EMBEDDED SYSTEM	3	1	0	30	20	50	100	150	4
3	NEE-041 - NEE-042; NEN-043 - NEN-044	DEPARTMENTAL ELECTIVE-IV	3	1	0	30	20	50	100	150	4
4	NOE-081 - NOE-084	OPEN ELECTIVE- 2	3	1	0	30	20	50	100	150	4
PRACTICAL / DESIGN / DRAWING											
5	NEE-851	PROJECT	0	0	12	0	100	100	250	350	8
6	NGP-801	GP					50	50		50	1
		TOTAL	14	5	12		180	350	650	1000	24

LIST OF DEPARTMENTAL ELECTIVEIV

NEE-041 EHVAC&DC TRANSMISSION
 NEE-042 POWER QUALITY
 NEN-043 IMAGE PROCESSING
 NEN-044 SATELLITE COMMUNICATION

LIST OF OPEN ELECTIVE 2

NOE-081 NON-CONVENTIONAL ENERGY RESOURCES
 NOE-082 NON LINEAR DYNAMIC SYSTEMS
 NOE-083 DATABASE MANAGEMENT SYSTEM AND DATA MINING AND WAREHOUSING
 NOE-084 AUTOMATION & ROBOTICS