Course Structure

Year: 1st **Semester: I**

Group A

Course Code	Course Title	L	T	P	Credit
JA1010	Engineering Mathematics-I	3	1	0	3.5
OA1210	Engineering Physics	3	1	2	4.5
LA1210	Essentials of Mechanical Engineering	3	1	2	4.5
HA1210	Professional Communication-I	3	0	1	3.5
DA1210	Computer Fundamental & C Programming	3	0	2	4
BA1010	Environmental Science	2	0	0	2
LA1220	Engineering Graphics	1	0	2	2
HA1310	Soft Skills Development	0	0	2	1
	Total				**25**

*Evaluation Scheme for **Soft Skills** Course will be as under:*

Course	Evaluation Scheme (%)				
	Attendance	Test-1	Test-2	Final Test	**Total**
Soft Skills	10	30	30	30	100

Year: 1st **Semester: I**

Group B

Course Code	Course Title	L	T	P	Credit
JA1010	Engineering Mathematics-I	3	1	0	3.5
BA1210	Engineering Chemistry	3	1	2	4.5
EA1210	Introduction to Electrical Engineering	3	1	2	4.5
FA1210	Introduction to Electronics & Communication	3	1	2	4.5
HA1210	Professional Communication-I	3	1	0	3.5
DA1210	Computer Fundamental & C Programming	3	0	2	4
LA1110	Workshop Practice	0	0	2	1
	Total				**25.5**

Year: 1st **Semester: II**

Group A

Course Code	Course Title	L	T	P	Credit
JA2010	Engineering Mathematics-II	3	1	0	3.5
BA1210	Engineering Chemistry	3	1	2	4.5
EA1210	Introduction to Electrical Engineering	3	1	2	4.5
FA1210	Introduction to Electronics & Communication	3	1	2	4.5
HA2210	Professional Communication-II	3	0	1	3.5
DA2211	Computer Programming in C++	3	0	2	4
LA1110	Workshop Practice	0	0	2	1
	Total				**25.5**

Year: 1st **Semester: II**

Group B

Course Code	Course Title	L	T	P	Credit
JA2010	Engineering Mathematics-II	3	1	0	3.5
OA1210	Engineering Physics	3	1	2	4.5
LA1210	Essentials of Mechanical Engineering	3	1	2	4.5
HA2210	Professional Communication-II	3	0	1	3.5
DA2211	Computer Programming in C++	3	0	2	4
BA1010	Environmental Science	2	0	0	2
LA1220	Engineering Graphics	1	0	2	2
HA1310	Soft Skills Development	0	0	2	1
	Total				**25**

*Evaluation Scheme for **Soft Skills** Course will be as under:*

Course	Evaluation Scheme (%)				
	Attendance	Test-1	Test-2	Final Test	**Total**
Soft Skills	10	30	30	30	100

Year: 2nd Semester: III

Course Code	Course Title	L	T	P	Credit
EA3210	Basic Network Analysis	3	1	2	4.5
EA3220	Electrical Measurement & Measuring Instruments	3	1	2	4.5
EA3230	Electromechanical Energy Conversion - I	3	1	2	4.5
JA3010	Engineering Mathematics - III	3	1	0	3.5
FA3290	Analog & Digital Electronics	3	1	2	4.5
LA30A0	Hydraulic Machines	3	0	0	3
	Total				**24.5**

Year: 2nd Semester: IV

Course Code	Course Title	L	T	P	Credit
EA4210	Electromechanical Energy Conversion - II	3	1	2	4.5
EA4220	Network Analysis & Synthesis	3	1	2	4.5
EA4230	Microprocessors	3	1	2	4.5
EA4010	Electrical Power Generation	3	1	0	3.5
EA4020	Engineering Materials	3	1	0	3.5
	Inter Departmental Elective	3	1	0	3.5
EA4310	Value Added Training - I	0	0	2	1
EA4410	Industrial Tour	0	0	2	1
	Total				**26**

List of Inter Departmental Elective	
JA4610	Numerical Techniques
LA6040	Operation Research

Year: 3rd **Semester: V**

Course Code	Course Title	L	T	P	Credit
EA5210	Power Electronics	3	1	2	4.5
EA5220	Control System	3	1	2	4.5
EA5010	Elements of Power System	3	1	0	3.5
EA5020	Fundamental of EM Theory	3	1	0	3.5
GC5010	Engineering Economics	2	0	0	2
DA3210	Data Structure	3	0	2	4
EA5310	Aptitude Building-1	0	0	2	1
	Total				**23**

Year: 3rd **Semester: VI**

Course Code	Course Title	L	T	P	Credit
EA6210	Switchgear & Protection	3	1	2	4.5
EA6220	Instrumentation & Process Control	3	1	2	4.5
EA6010	Power System Analysis	3	1	0	3.5
EA6020	Modern Control System	3	1	0	3.5
FA63E0	~~Principles of~~ Communication Engineering	3	1	0	3.5
HA5010	Principles of Management	2	0	0	2
EA6310	Aptitude Building II	0	0	2	1
EA6110	Project Phase I	0	0	4	2
	Total				**24.5**

After VI semester student will undergo minimum 6 weeks Industrial Training which will be evaluated in the VII semester.

Year: 4th Semester: VII

Course Code	Course Title	L	T	P	Credit
EA7210	Electric Drives	3	1	2	4.5
EA7010	ANN & Fuzzy Logic	3	1	0	3.5
EA7020	Power System Operation & Control	3	1	0	3.5
EA7030	Electrical Machine Design	3	1	0	3.5
	Departmental Elective–I	3	1	0	3.5
EA7510	Industrial Training & Presentation*	0	0	2	4
EA7110	Project Phase II	0	0	4	2
	Total				**24.5**

* During Summer Vacation after VI semester students are compulsorily required to attend Industrial Training of 6-8 weeks which will be evaluated in VII Semester under Industrial Training Presentation (EA7510).

Lists of Departmental Elective-I	
EA7610	High Voltage Engineering
EA7620	FACTS Devices
EA7630	Power Converter Applications
EA7640	Bio Instrumentation

Year: 4th Semester: VIII

Course Code	Course Title	L	T	P	Credit
	Elective II	3	1	0	3.5
	Elective III	3	1	0	3.5
	Elective IV	3	1	0	3.5
	Elective V	3	1	0	3.5
	Open Elective	3	0	0	3
EA8A10	Project Phase III	0	0	8	4
	Total				**21**

S.No	Lists of Departmental Elective-II, III, IV, V	
1	EA8610	EHV AC & DC Transmission
2	EA8620	Telemetry and Data Acquisition System
3	EA8630	Non-Conventional Energy Resources
4	EA8640	Special Electrical Machines
5	EA8650	Power Quality & Its Improvement Techniques
6	EA8660	Switch Mode & Resonant Converters
7	EA8670	Utilization of Electrical Energy & Traction

List of Open Electives

S.No.	Branch	Name of Open Elective subjects
1	Physics	1. Nano Scale Science and Technology 2. Photonics Technology
2	EE	1. Non-Conventional Energy Resources 2. Instrumentation and Process control
3	ME	1. Entrepreneurship development 2. Quality Management
4	Civil	1. Environment and Ecology 2. GIS
5	CSE	1. Business Intelligence 2. Artificial Intelligence
6	IT	1. Multi-Media Technology 2. IT In Business
7	ECE	1. Consumer Electronics 2. Laser System & Application
8	MBA	1. Industrial Psychology 2. Organizational Behavior 3. Human Values and Ethics 4. HRD 5. Digital Marketing 6. Financial Modeling with Spread sheet

Summary of the Credits

Year	Semester	Credit	Year Credit
First Year	**I**	**25/25.5**	**50.5**
	II	**25/25.5**	
Second Year	**III**	**24.5**	**50.5**
	IV	**26**	
Third Year	**V**	**23**	**47.5**
	VI	**24.5**	
Fourth Year	**VII**	**24.5**	**45.5**
	VIII	**21**	
Total			**194**

A. Evaluation Scheme for the following Courses will be as under:

Course	**Evaluation Scheme (%)**				
	Attendance	Test-1	Test-2	Final Test	**Total**
Aptitude Building-1	10	30	30	30	100
Aptitude Building-2	10	30	30	30	100
Value Addition Training	10	30	30	30	100
Soft Skills	10	30	30	30	100

B. Evaluation Scheme for **Project** will be as under:

Course	**Evaluation Scheme (%)**				
	Synopsis	Presentation	Report	Viva-Voce	**Total**
Project Phase-I	10	15	25	50	100
Project Phase-II					
Project Phase-III					

Project Phase-I & II will be evaluated by the Committee comprising of the following:

1. Head of the Department – Chairman
2. Teacher In-charge – Member
3. One nominee appointed by Director (Academic) – Member

Project Phase-III will be evaluated by the Committee comprising of the following:

1. Head of the Department – Chairman
2. Teacher In-charge – Member
3. One nominee appointed by Director (Academic) – Member
4. One nominee appointed by Vice Chancellor – Member

C. Evaluation Scheme for **Industrial Training** will be as under:

Course	**Evaluation Scheme (%)**			
	Training Report	Presentation	Monitoring	**Total**
Industrial Training	25	50	25	100

*** Subject to modification as may be announced**