SANKAR POLYTECHNIC COLLEGE

SANKARNAGAR, TIRUNELVELI - 627 357

(AN GOVT.AIDED AUTONOMOUS INSTITUTION, APPROVED BY AICTE & AFFLIATED TO DoTE)

P-SCHEME CURRICULAM

Department of Electrical and Electronics Engineering

[III Semester – VI Semester]

SANKAR POLYTECHNIC COLLEGE [AUTONOMOUS], SANKAR NAGAR – 627357

P SCHEME REGULATION

ELECTRICAL AND ELECTRONICS ENGINEERING

SEMESTER - III

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Core	Theory	P331	Electrical Machines I	4-0-0	60	4	Theory
2	Program Core	Practicum	P332	Electrical Circuit Theory	2-0-4	90	4	Practical
3	Program Core	Practicum	P333	Sensors and Measurement	1-0-4	75	3	Practical
4	Program Core	Practicum	P334	Analog and Digital Electronics	1-0-4	75	3	Practical
5	Engineering Science	Practicum	P335	Programming in C	1-0-2	45	2	Practical
6	Program Core	Practical/Lab	P336	Electrical Machines I Practical	0-0-4	60	2	Practical
7	Open Elective	Advanced Skill Certification	P337	Advanced Skills Certification - 3	0-0-4	60	2	NA
8	Humanities & Social Science	Integrated Learning Experience	P3301	Growth Lab	-	30	0	-
9	Audit Course	Integrated Learning Experience	P3302	Induction Program II	-	16	0	-
10	Audit Course	Integrated Learning Experience	P3303	I&E/ Club Activity/ Community Initiatives	-	16	0	-
11	Audit Course	Integrated Learning Experience	P3304	Shop floor Immersion	-	8	0	-
12	Audit Course	Integrated Learning Experience	P3305	Student-Led Initiative	-	22	0	-
13	Audit Course	Integrated Learning Experience	P3306	Emerging Technology Seminars	-	8	0	-
14	Audit Course	Integrated Learning Experience	P3307	Health & Wellness	0-0-2	30	1	NA
Library					-	15	-	-
Test and Revision					-	30	-	-
TOTAL						**640**	**21**	

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P SCHEME REGULATION

SEMESTER - IV

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Core	Practicum	P341	Alternators & its Performances	1-0-4	75	3	Practical
2	Program Core	Theory	P342	Generation, Transmission and Distribution	4-0-0	60	4	Theory
3	Program Core	Practicum	P343	Microcontroller and Embedded Systems	1-0-4	75	3	Practical
4	Program Core	Practicum	P344	Electrical CAD Design	1-0-4	75	3	Practical
5	Program Core	Practicum	P345	Servicing of Electrical Appliances	1-0-2	45	2	Practical
6	Program Core	Practicum	P346	High Performance AC Motors	1-0-4	75	3	Practical
7	Open Elective	Advanced Skill Certification	P347	Advanced Skills Certification - 4	0-0-4	60	2	NA
8	Audit Course	Integrated Learning Experience	P3401	I&E/ Club Activity/ Community Initiatives	-	30	0	-
9	Audit Course	Integrated Learning Experience	P3402	Shop floor Immersion	-	8	0	-
10	Audit Course	Integrated Learning Experience	P3403	Student-Led Initiative	-	24	0	-
11	Audit Course	Integrated Learning Experience	P3404	Emerging Technology Seminars	-	8	0	-
12	Audit Course	Integrated Learning Experience	P3405	Health & Wellness	-	30	0	-
13	Audit Course	Integrated Learning Experience	P3406	Special Interest Groups (Placement Training)	-	30	0	-
Library					-	15	-	-
Test and Revision					-	30	-	-
TOTAL						**640**	**20**	

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P SCHEME REGULATION

SEMESTER - V

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Core	Theory	P351	Power System Protection and Utilization	3-0-0	45	3	Theory
2	Program Core	Practicum	P352	Electric Vehicle Technology	1-0-4	75	3	Practical
3	Program Core	Practicum	P353	Power Electronics	1-0-4	75	3	Practical
4	Program Core	Practicum	P354	PLC and Automation	1-0-4	75	3	Practical
5	Program Elective	Practicum	P355X	Elective -1	1-0-4	75	3	Practical
6	Humanities & Social Science	Practicum	P356	Innovation and Start-ups	1-0-2	45	2	Project
7	Project/Internship	Project/Internship	P357	Industrial Training* [Summer Vacation - 90 Hours]	-	-	2	Project
8	Open Elective	Advanced Skill Certification	P358	Advanced Skills Certification - 5	0-0-4	60	2	NA
9	Audit Course	Integrated Learning Experience	P3501	Induction program III	-	40	0	-
10	Audit Course	Integrated Learning Experience	P3502	Student-Led Initiative	-	30	0	-
11	Audit Course	Integrated Learning Experience	P3503	Health & Wellness	-	30	0	-
12	Audit Course	Integrated Learning Experience	P3504	Special Interest Groups (Placement Training)	-	40	0	-
Library					-	15	-	-
Test and Revision					-	30	-	-
TOTAL						**635**	**21**	-

*** Internship shall be offered in the summer break between 4th and 5th semester followed by a review and award of credits in the 5th semester**

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P SCHEME REGULATION

ELECTIVE THEORY - I

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Elective	Practicum	P3551	IoT And Application	1-0-4	75	3	Practical
2	Program Elective	Practicum	P3552	Computer Hardware and Networking	1-0-4	75	3	Practical
3	Program Elective	Practicum	P3553	Control of Electrical Machines	1-0-4	75	3	Practical
4	Program Elective	Practicum	P3554	Auto Mechatronics	1-0-4	75	3	Practical
5	Program Elective	Practicum	P3555	Mechanical Engineering	1-0-4	75	3	Practical
6	Program Elective	Practicum	P3556	Estimation, Standards and Regulations	1-0-4	75	3	Practical
7	Program Elective	Practicum	P3557	Inter discipline course #	1-0-4	75	3	Practical
8	Program Elective	Practicum	P3558	Advanced Microcontroller	1-0-4	75	3	Practical

 # Courses from other programmes with the same credit can be considered after proper approval from Head Of Institution (DOTE Exam Section).

SEMESTER - VI

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Elective	Practicum	P 361x	Electives - 2(Pathway)	3-0-0	45	3	Theory
2	Program Elective	Practicum	P 362y	Elective - 3 (Specialization / Industrial Elective)	1-0-3	60	3	Practical
3	Industrial Training / Project	Project/Internship	P363	Internship / Fellowship / In-house Project	-	540	12	Project
Test and Revision					-	20	-	-
TOTAL					-	**665**	**18**	-
1	Project / Internship	Project / Internship	P3631	Internship	-	540	12	Project
2	Project / Internship	Project / Internship	P3632	Fellowship	-	540	12	Project
3	Project / Internship	Project / Internship	P3633	In-house Project	-	540	12	Project

Note:

1. **For all semesters, the type of End Semester examination for practicum subjects is based on the higher credits towards the theory or practical component of the respective course.**
2. **Some of the audit courses are non-credited but compulsory courses that are a part of the program initiative and the implementation process has to be recorded.**
3. **1 Credit for Projects is equivalent to 45 periods for projects/internships/fellowship.**
4. **Electives 2 & 3 are considered as Open Elective, providing the option for students to take courses from other departments also if suitable with approval from the Head of the Institution.**

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ELECTIVE THEORY - 2 (PATHWAY)

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Elective | Higher Education	Practicum	P3611	Advanced Engineering Mathematics	3-0-0	45	3	Theory
2	Elective | Entrepreneurship	Practicum	P3612	Entrepreneurship	3-0-0	45	3	Theory
3	Elective | Technocrats	Practicum	P3613	Project Management	3-0-0	45	3	Theory
4	Elective | Technocrats	Practicum	P3614	Finance Fundamentals	3-0-0	45	3	Theory
5	Elective | Technocrats	Practicum	P3615	Industrial Management and Safety	3-0-0	45	3	Theory
6	Elective | Technocrats	Practicum	P3616	Battery Management System	3-0-0	45	3	Theory
7	Elective | Technocrats	Practicum	P3617	Industrial Automation	3-0-0	45	3	Theory
8	Elective | Technocrats	Practicum	P3618	Online Elective Courses $	3-0-0	45	3	Theory

$ Online courses with the same credit available in AICTE, NPTEL and reputed Institutions with the proper evaluation system and certification can be considered after proper approval from Head of Institution.

ELECTIVE THEORY - 3 (SPECIALIZATION)

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Elective	Practicum	P3621	HVAC (R & AC)	1-0-3	60	3	Practical
2	Program Elective	Practicum	P3622	PCB Design and Assembly	1-0-3	60	3	Practical
3	Program Elective	Practicum	P3623	Electronics Product Design	1-0-3	60	3	Practical
4	Program Elective	Practicum	P3624	Renewable Energy Systems	1-0-3	60	3	Practical
5	Program Elective	Practicum	P3625	Energy Conservation and Auditing	1-0-3	60	3	Practical
6	Program Elective	Practicum	P3626	Electrical Drives and Controls	1-0-3	60	3	Practical

ELECTIVE THEORY - 3 (INDUSTRIAL ELECTIVE)

S.no	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Program Elective	Practicum	P3627	PCB Design	1-0-3	60	3	Practical
2	Program Elective	Practicum	P3628	Fuel Injection Technology	1-0-3	60	3	Practical

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