

**VIRUDHUNAGAR S.VELLAICHAMY NADAR POLYTECHNIC COLLEGE (AUTONOMOUS),**  
**(Affiliated to Directorate of Technical Education, Chennai – 25)**  
**VIRUDHUNAGAR – 626 001.**

**SEMESTER III**

**CURRICULUM OUTLINE**

S.No	Course Category	Course Type	Course Code	Course Name	L – T – P	Period	Credit	End Exam	
1	Program Core	Theory	4233110	Electronic Devices and Circuits	4-0-0	60	4	Theory	
2	Program Core	Theory	4233210	Digital Electronics	4-0-0	60	4	Theory	
3	Program Core	Practical	4233320	Electronic Devices and Circuits Practical	0-0-4	60	2	Practical	
4	Program Core	Practical	4233420	Digital Electronics Practical	0-0-4	60	2	Practical	
5	Program Core	Practicum	4233540	Linear Integrated Circuits	1-0-4	75	3	Practical	
6	Engineering Science	Practicum	4233640	Electrical Circuits and Machines	1-0-2	45	2	Practical	
7	Open Elective	Advanced Skill Certification	4233770	Advanced Skills Certification-III	1-0-2	60	2	NA	
8	Humanities & Social Science	Integrated Learning Experience	4233880	Growth Lab	0-0-3	45	0	-	
9	Audit Course	Integrated Learning Experience	4233881	Induction Program–II	-	16	0	-	
10	Audit Course	Integrated Learning Experience	4233882	I&E/ Club Activity / Community Initiatives	-	30	0	-	
11	Audit Course	Integrated Learning Experience	4233883	Shop floor Immersion	-	8	0	-	
12	Audit Course	Integrated Learning Experience	4233884	Student-Led Initiative	-	30	0	-	
13	Audit Course	Integrated Learning Experience	4233885	Emerging Technology Seminars	-	8	0	-	
14	Audit Course	Integrated Learning Experience	4233886	Health and Wellness	0-0-2	30	1	NA	
	Test and Revision						38		
	Library						15		
	<b>Total</b>						<b>640</b>	<b>20</b>	

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**SEMESTER IV**

**CURRICULUM OUTLINE**

S.No	Course Category	Course Type	Course Code	Course Name	L – T – P	Period	Credit	End Exam	
1	Program Core	Theory	4234110	Microcontroller	4-0-0	60	4	Theory	
2	Program Core	Theory	4234210	Data Communication and Networking	3-0-0	45	3	Theory	
3	Program Core	Practicum	4234340	Basics of Communication Engineering	1-0-4	75	3	Practical	
4	Program Core	Practicum	4234440	Measuring Instruments and sensors	1-0-4	75	3	Practical	
5	Engineering Science	Practicum	4234540	Programming in C	1-0-4	75	3	Practical	
6	Program Core	Project	4234693	Microcontroller Practical	0-0-4	60	2	Project	
7	Open Elective	Advanced Skill Certification	4234770	Advanced Skills Certification–IV	1-0-2	60	2	NA	
8	Audit Course	Integrated Learning Experience	4234882	I&E/Club Activity/Community Initiatives	-	30	0	-	
9	Audit Course	Integrated Learning Experience	4234883	Shop Floor Immersion	-	8	0	-	
10	Audit Course	Integrated Learning Experience	4234884	Student Led Initiative	-	30	0	-	
11	Audit Course	Integrated Learning Experience	4234885	Emerging technology seminars	-	8	0	-	
12	Audit Course	Integrated Learning Experience	4234886	Health and Wellness	-	30	0	-	
13	Audit Course	Integrated Learning Experience	4234887	Special Interest groups( <i>Placement training</i> )	-	30	0	-	
	Test and Revision						39		
	Library						15		
	<b>Total</b>						<b>640</b>	<b>20</b>	

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**SEMESTER V**

**CURRICULUM OUTLINE**

S.No	Course Category	Course Type	Course Code	Course Name	L – T – P	Period	Credit	End Exam	
1	Program Core	Practicum	4235130	Advanced Communication Systems	2-0-2	60	3	Theory	
2	Program Core	Practicum	4235230	Mobile Communication	2-0-2	60	3	Theory	
3	Program Elective	Theory		Elective – 1	3-0-0	45	3	Theory	
4	Program Core	Practicum	4235440	Embedded Systems	2-0-4	90	4	Practical	
5	Program Elective	Practicum		Elective – 2	1-0-4	75	3	Practical	
6	Humanities & Social Science	Practicum	4235660	Innovation and Startup	1-0-2	45	2	Project	
7	Project/ Internship	Project/ Internship	4235750	Industrial Training [Summer Vacation - 90 Hours]	-	-	2	Project	
8	Open Elective	Advanced Skill Certification	4235870	Advanced Skills Certification – V	1-0-2	60	2	NA	
9	Audit Course	Integrated Learning Experience	4235981	Induction program III	-	40	0	-	
10	Audit Course	Integrated Learning Experience	4235984	Student-Led Initiative	-	30	0	-	
11	Audit Course	Integrated Learning Experience	4235986	Health and Wellness	-	30	0	-	
12	Audit Course	Integrated Learning Experience	4235987	Special Interest Groups (Placement Training)	-	40	0	-	
	Test and Revision						45		
	Library						15		
	<b>Total</b>						<b>635</b>	<b>22</b>	

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**SEMESTER V**

**CURRICULUM OUTLINE**

**Elective 1**

S.No	Course Category	Course Type	Course Code	Course Name	L – T – P	Period	Credit	End Exam
1	Program Elective	Theory	4235311	E-Vehicle Technology	3-0-0	45	3	Theory
2	Program Elective	Theory	4235312	Medical Instrumentation	3-0-0	45	3	Theory
3	Program Elective	Theory	4235313	Digital Communication	3-0-0	45	3	Theory
4	Program Elective	Theory	4235314	Digital Manufacturing Technology	3-0-0	45	3	Theory
5	Program Elective	Theory	4235315	Signal and Image Processing	3-0-0	45	3	Theory
6	Program Elective	Theory	4235316	Electronic System Design	3-0-0	45	3	Theory
7	Program Elective	Theory	xxxxxxx	Inter discipline course #	3-0-0	45	3	Theory

# Courses from other programmes with the same credit can be considered after proper approval from the Principal and Chairman, Awards Committee.

**Elective 2**

S.No	Course Category	Course Type	Course Code	Course Name	L-T-P	Period	Credit	End Exam
1	Program Elective	Practicum	4235541	Industrial automation	1-0-4	75	3	Practical
2	Program Elective	Practicum	4235542	Robotics	1-0-4	75	3	Practical
3	Program Elective	Practicum	4235543	Computer Hardware Servicing	1-0-4	75	3	Practical
4	Program Elective	Practicum	4235544	PCB Design and Assembly	1-0-4	75	3	Practical
5	Program Elective	Practicum	4235545	Industrial IoT	1-0-4	75	3	Practical
6	Program Elective	Practicum	4235546	Multimedia Systems	1-0-4	75	3	Practical

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**SEMESTER VI**

**CURRICULUM OUTLINE**

S.No	Course Category	Course Type	Course Code	Course Name	L-T-P	Period	Credit	End Exam
1	Open Elective	Theory		Elective-3 (Pathway)	3-0-0	45	3	Theory
2	Open Elective	Practicum		Elective-4 (Specialization)	1-0-4	75	3	Practical
3	Project / Internship	Project / Internship		Internship / Fellowship / In-house Project	-	540	12	Project
<b>Total</b>						<b>660</b>	<b>18</b>	

**Elective 3 (Pathway)**

S.No	Course Category	Course Type	Code	Course Title	L-T-P	Period	Credit	End Exam
1	Open Elective / Higher Education	Theory	C236111	Advanced Engineering Mathematics	3-0-0	45	3	Theory
2	Open Elective / Entrepreneurship	Theory	C236112	Entrepreneurship	3-0-0	45	3	Theory
3	Open Elective / Technocrats	Theory	C236113	Project Management	3-0-0	45	3	Theory
4	Open Elective / Technocrats	Theory	C236114	Finance Fundamentals	3-0-0	45	3	Theory
5	Open Elective / Technologists	Theory	4236115	Consumer Electronics	3-0-0	45	3	Theory
6	Open Elective / Technologists	Theory	4236116	ASIC Design	3-0-0	45	3	Theory
7	Open Elective / Technocrats	Theory	xxxxxxx	Online Elective Course \$	3-0-0	45	3	Theory

\$ Online Courses with the same credit available in AICTE / NPTEL and reputed Institutions with proper evaluation system and certification can be considered after proper approval from the Principal and Chairman Awards Committee.

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**SEMESTER VI**

**CURRICULUM OUTLINE**

**Elective 4 (Specialization)**

S.No	Course Category	Course Type	Course Code	Course Title	L-T-P	Period	Credit	End Exam
1	Open Elective	Practicum	4236241	Power Electronic Devices	1-0-4	75	3	Practical
2	Open Elective	Practicum	4236242	VLSI Using Verilog	1-0-4	75	3	Practical
3	Open Elective	Practicum	4236243	Virtual Instrumentation [Lab view]	1-0-4	75	3	Practical
4	Open Elective	Practicum	4236244	Artificial Intelligence	1-0-4	75	3	Practical
5	Open Elective	Practicum	4236245	Wireless Communication	1-0-4	75	3	Practical
6	Open Elective	Practicum	4236246	VR and AR	1-0-4	75	3	Practical

**Project/Internship**

S.No	Course Category	Course Type	Course Code	Course Name	L – T – P	Period	Credit	End Exam
3	Project / Internship	Project / Internship	4236390	In-house Project	-	540	12	Project
3	Project / Internship	Project / Internship	4236391	Internship	-	540	12	Project
3	Project / Internship	Project / Internship	4236392	Fellowship	-	540	12	Project