



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F.Y. M.Tech. Electrical (Control System Engineering) Sem-I AY 2020-21

Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE
Professional Core (Theory)												
1	HS	4IC501	Research Methodology	2	0	0	2	2	10	30	10	50
2	PC	4CS501	Applied Digital Control	3	0	0	3	3	10	30	10	50
3	PC	4CS502	Process Control	3	0	0	3	3	10	30	10	50
Professional Core (Lab)												
4	PC	4CS551	Applied Digital Control Lab	0	0	4	4	2	25	25	25	25
5	PC	4CS552	Process Control Lab	0	0	4	4	2	25	25	25	25
Professional Elective (Theory)												
6	PE	4CS5**	Professional Elective 1	3	0	0	3	3	10	30	10	50
7	PE	4CS5**	Professional Elective 2	3	0	0	3	3	10	30	10	50
Mandatory Life Skill Courses												
8	MC	Refer list	Mandatory Life Skill Course	2	0	0	2	0	10	30	10	50
Value Added Professional Courses \$												
9	VAPC	Refer list	Value Added Professional Courses					#				
Value Added Life-Skill Courses \$												
10	VALS	Refer list	Value Added Life Skill Courses					#				
Total				16	0	8	24	18				

Notes:

* For Lab courses, there will be only internal continuous assessment. ESE is a separate head of passing for both theory and lab courses.

The Value Added Courses are Optional Courses. The mode of teaching (LTPI) & evaluation scheme is decided by the resource person.

The list of Value added courses will be updated from time to time.

The course may be on paid basis. The credits earned from these courses will be shown on grade card.

For SPI and CPI calculation, these courses will be excluded.

@ Minimum 2 mandatory life skill courses are to be completed for award of degree.

For further details refer to Academic and Examination rules and regulations.



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Sr.No.	Course Code	Course Name
Professional Elective 1		
1	4CS511	Optimal Control
2	4CS512	Multivariable Control
3	4CS513	Control Techniques for Electrical Drives
Professional Elective 2		
1	4CS515	System Identification
2	4CS516	Advanced Digital Signal Processing



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Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE
Professional Core (Theory)												
1	PC	4CS521	Non-Linear Dynamical Systems	3	0	0	3	3	10	30	10	50
2	PC	4CS522	PLC and Embedded Control	3	0	0	3	3	10	30	10	50
Professional Core (Lab)												
3	PC	4CS571	Non-Linear Dynamical Systems Lab	0	0	4	4	2	25	25	25	25
4	PC	4CS572	PLC and Embedded Control Lab	0	0	4	4	2	25	25	25	25
5	PC	4CS573	Industrial Project	0	0	4	4	2	25	25	25	25
Professional Elective (Theory)												
6	PE	4CS5**	Professional Elective 3	3	0	0	3	3	10	30	10	50
7	PE	4CS5**	Professional Elective 4	3	0	0	3	3	10	30	10	50
Mandatory Life Skill Courses												
8	MC	Refer list	Mandatory Life Skill Course	2	0	0	2	0	10	30	10	50
Value Added Professional Courses #												
9	VAPC	Refer list	Value Added Professional Courses					#				
Value Added Life-Skill Courses #												
10	VALS	Refer list	Value Added Life Skill Courses					#				
Total				14	0	12	26	18				

Notes:

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Sr.No.	Course Code	Course Name
Professional Elective 3		
1	4CS531	Adaptive Control
2	4CS532	Real Time Control Applications
Professional Elective 4		
1	4CS535	Neural Network and Fuzzy Control
2	4CS536	Robust Control