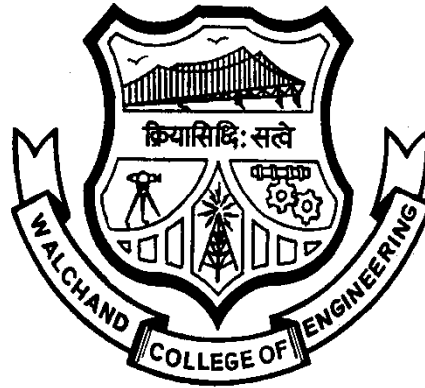


Walchand College of Engineering, Sangli

(An Autonomous Institute)



Curriculum (Structures)

for

**M.Tech Programme in
Electrical Control System**

Academic Year 2016-17



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

First Year M.Tech. Program in Electrical Control Systems Semester I

Course Code	Course	Teaching Scheme				Evaluation Scheme			
						Component	Marks		
		L	T	P	Credits			Max Marks	Min for Passing
2IC501 (2IC601)	Research Methodology	2	--	--	2	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2IE5** (2EE623)	Institute Elective- I	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS5** (2EE***)	Professional Elective- I	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS501 (2EE701)	Applied Digital Control	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS502 (2EE702)	Advanced Process Control	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS503 (2EE703)	Optimal Control	3	1	--	4	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS551 (2EE591)	Power Devices Lab	--	--	2	1	ISE	50	20	
						ESEPOE	50	20	
2CS552 (2EE751)	Applied Digital Control Lab	--	--	2	1	ISE	50	20	
						ESEPOE	50	20	
2CS553 (2EE752)	Advanced Process Control Lab	--	--	2	1	ISE	50	20	
						ESEPOE	50	20	
2CS541 (2EE789)	Seminar	--	--	2	1	ISE	100		40
Total		17	1	8	22	Total Credit: 22 Total Contact Hours/Week: 26 hrs			

Professional Elective- I	
Course Code	Course
2CS 511 (2EE 731)	Advanced Digital Signal Processing
2CS 512 (2EE 732)	System Identification
2CS 513 (2EE 733)	Multivariable Control

Note: Course code in the bracket indicates pre-revised code



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

First Year M.Tech. Program in Electrical Control Systems Semester II

Course Code	Course	Teaching Scheme				Evaluation Scheme			
						Component	Theory		
		L	T	P	Credits		Max Marks		Min for Passing
2IC502 (2IC 602)	Project Management	2	--	--	2	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2IE5** (2EE626)	Institute Elective- II	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS5** (2EE***)	Professional Elective- II	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS521 (2EE721)	Robust Control	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS522 (2EE722)	Adaptive Control System	3	--	--	3	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS523 (2EE723)	Non Linear Control System	3	1	--	4	ISE 1	10	20	40
						ISE 2	10		
						MSE	30		
						ESE	50		
2CS571 (2EE593)	Drives Lab	--	--	2	1	ISE	50	20	
						ESE (POE)	50	20	
2CS572 (2EE773)	Non Linear Control System Lab	--	--	2	1	ISE	50	20	
						ESE(POE)	50	20	
2CS573 (2EE***)	Professional Elective- II Lab	--	--	2	1	ISE	50	20	
						ESE(POE)	50	20	
2CS542 (2EE790)	Pre dissertation Seminar	--	--	2	1	ISE	100		40
Total		17	1	8	22	Total Credit: 22 Total Contact Hours/Week: 26 hrs			

Note: Course code in the bracket indicates pre-revised code

Professional Elective- II Theory		Professional Elective- II Lab	
Course Code	Course	Course Code	Course
2CS531(2EE741)	Neural Network & Fuzzy Control	2CS 581 (791)	Neural Network & Fuzzy Control Lab
2CS532 (2EE742)	Modern Signal Processing	2CS 582 (792)	Modern Signal Processing Lab
2CS533(2EE743)	PLC & Embedded Control	2CS 583 (793)	PLC & Embedded Control Lab



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

Second Year M.Tech. Program in Electrical Control Systems Semester III

Course Code	Course	Teaching Scheme			Evaluation Scheme			
		L	T	P	Component	Credits	Practical (Marks)	
							Max	Min for Passing
2CS691 (2EE794)	Dissertation Phase I	--	--	5	ISE	4	100	40
2CS692 (2EE795)	Dissertation Phase II ISE	--	--		ISE	2	100	40
2CS693 (2EE795)	Dissertation Phase II ESE	--	--		ESE	4	100	40
Total		--	--	5	Total Credit: 10 Average Contact hours/week/student: 5 Hrs			

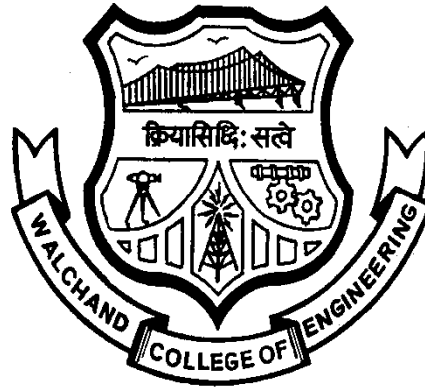
IV Semester

					Component	Credits	Practical (Marks %)	
		L	T	P			Max	Min for Passing
2CS694 (2EE796)	Dissertation Phase III	--	--	5	ISE	5	100	40
2CS695 (2EE797)	Dissertation Phase IV ISE	--	--		ISE	5	100	40
2CS696 (2EE797)	Dissertation Phase IV ESE	--	--		ESE	10	100	40
Total		--	--	5	Total Credit: 20 Average Contact hours/week/student: 5 Hrs			

Note: Course code in the bracket indicates pre-revised code

Walchand College of Engineering, Sangli

(An Autonomous Institute)



Curriculum (Structures)

for

**M.Tech. Programme in
Electrical Power System
Academic Year 2016-17**



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

First Year M.Tech. Program in Electrical Power Systems Semester I

Course Code	Course	Teaching Scheme				Evaluation Scheme			
		L	T	P	Credits	Component	Marks		
							Max Marks	Min for Passing	
2IC501 (2IC601)	Research Methodology	2	--	--	2	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2IE5** (2EE623)	Institute Elective- I	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS5** (2EE***)	Professional Elective- I	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS501 (2EE601)	Power Quality in Distribution Systems	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS502 (2EE621)	Digital Protection of Power System	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS503 (2EE622)	Power Apparatus Modeling & Simulation	3	1	--	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS551 (2EE591)	Power Devices Lab	--	--	2	1	ISE	50	20	
						ESE(OE)	50	20	
2PS552 (2EE651)	Power Quality in Distribution Systems Lab	--	--	2	1	ISE	50	20	
						ESE (POE)	50	20	
2PS553 (2EE671)	Digital Protection of Power System Lab	--	--	2	1	ISE	50	20	
						ESE (POE)	50	20	
2PS541 (2EE689)	Seminar- I	--	--	2	1	ISE	100	40	
Total		17	1	8	22	Total Credit: 22 Total Contact Hours/Week: 26 hrs			

Professional Elective- I	
Course Code	Course
2PS511 (631)	Power System Planning & Reliability
2PS512 (632)	FACTS
2PS513 (633)	Smart Grid
2PS514 (634)	Neural Network & Fuzzy Application to Power System

Note: Course code in the bracket indicates pre-revised code



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

First Year M.Tech. Program in Electrical Power Systems Semester II

Course Code	Course	Teaching Scheme				Evaluation Scheme			
		L	T	P	Credits	Component	Marks		
							Max Marks	Min for Passing	
2IC502 (2IC 602)	Project Management	2	--	--	2	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS5** (2EE626)	Institute Elective- II	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS5** (2EE***)	Professional Elective- II	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS521 (2EE624)	SCADA & Automation	3	--	--	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS522 (2EE625)	Computer Aided Power System Analysis	3	--	2	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS523 (2EE627)	Power System Dynamics	3	1	--	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50		
2PS571 (2EE593)	Drives Lab	--	--	2	1	ISE	50	20	
						ESE POE	50	20	
2PS572 (2EE674)	SCADA & Automation Lab	--	--	2	1	ISE	50	20	
						ESE POE	50	20	
2PS5** (2EE***)	Professional Elective- II Lab	--	--	2	1	ISE	50	20	
						ESE POE	50	20	
2PS542 (2EE690)	Pre Dissertation Seminar	--	---	2	1	ISE	100	40	
Total		17	1	10	23	Total Credit: 23 Total Contact Hours/Week: 28 hrs			

Professional Elective- II Theory		Professional Elective- II Lab	
Course Code	Course	Course Code	Course
2PS531 (641)	DSP Application to Power System	2PS581 (691)	DSP Application to Power System Lab
2PS532 (642)	HVDC Transmission	2PS582 (692)	HVDC Transmission Lab
2PS533 (643)	Restructured Power System & Deregulation	2PS583 (693)	Restructured Power System & Deregulation Lab

Note: Course code in the bracket indicates pre-revised code



Walchand College of Engineering, Sangli

(An Autonomous Institute)

Teaching and Evaluation Scheme effective from 2016-17

Second Year M.Tech. Program in Electrical Power Systems

Semester III

Course Code	Course	Teaching Scheme		Evaluation Scheme				
		L	T	Component	Credits	Practical (Marks)		
						Max	Min for Passing	
2PS691 (2EE 694)	Dissertation Phase I	-	-	5	ISE	4	100	40
2PS692 (2EE 695)	Dissertation Phase II ISE	-	-		ISE	2	100	40
2PS693	Dissertation Phase II ESE	-	-		ESE	4	100	40
Total				5	Total Credit: 10 Average Contact hours/week/student: 5 Hrs			

Semester IV

Course Code	Course	Teaching Scheme		Evaluation Scheme				
		L	T	component	Credits	Practical (Marks)		
						Max	Min for Passing	
2PS694 (2EE696)	Dissertation Phase III	--	--	5	ISE	5	100	40
2PS695 (2EE697)	Dissertation IV ISE	--	--		ISE	5	100	40
2PS696	Dissertation IV ESE	--	--		ESE	10	100	40
Total		--	--	5	Total Credit: 20 Average Contact hours/week/student: 5 Hrs			

Note: Course code in the bracket indicates pre-revised code