BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
NEWCOURSE STRUCTURE - *To be effective from academic session 2018- 19*
Based on CBCS & OBE model
Recommended scheme of study for M.Tech Programmes(Control System)

SEMESTER / Session of Study (Recomended)	Course Level	Category of course	Course Code	Courses	Mode of delivery & credits *L-Lecture; T-Tutorial;P-Practicals*			Total Credits *C- Credits*
					L *(Periods/ week)*	**T** *(Periods/ week)*	**P** *(Periods/w eek)*	**C**
				THEORY				
FIRST / Monsoon	**Fifth**	Programme Core (PC)	EE501	Advanced Digital Signal Processing	3	0	0	3
			EE503	Modern Control Theory	3	0	0	3
			EE505	System Identification and Adaptive Control	3	0	0	3
		Programme Elective (PE)		Programme Elective-I	3	0	0	3
		Open Elective (OE)		Open Elective-I	3	0	0	3
				LABORATORIES				
	Fifth	Programme Core (PC)	EE502	Advanced Digital Signal Processing Laboratory	0	0	4	2
			EE504	Adaptive Control System Laboratory	0	0	4	2
				TOTAL				**19**
				THEORY				
SECOND/ Spring	**Fifth**	Programme Core (PC)	EE551	Optimal Control Theory	3	0	0	3
			EE553	Nonlinear Control System	3	0	0	3
			EE555	Statistical Control Theory	3	0	0	3
		Programme Elective (PE)		Programme Elective -II	3	0	0	3
		Open Elective (OE)		Open Elective-II	3	0	0	3
				LABORATORIES				
	Fifth	Programme Core (PC)	EE552	Control System Design Laboratory	0	0	4	2
			EE554	Power Electronics and Drives Laboratory	0	0	4	2
								19
				TOTAL FOR FIFTH LEVEL				**38**
				THEORY				
THIRD / Monsoon	**Sixth**	Programme Core (PC)	EE600	Thesis Part - I				8
			EE601	Process Measurement and Control	3	0	0	3
		Programme Elective (PE)		Programme Elective-III	3	0	0	3
				LABORATORIES				
	Sixth	Programme Core (PC)	EE602	Advanced Control System Design Laboratory	0	0	4	2
				TOTAL				**16**
FOURTH/ Spring	**Sixth**	Programme Core (PC)	EE650	Thesis Part - II				16
				TOTAL				**16**
				TOTAL FOR SIXTH LEVEL				**32**
				GRAND TOTAL FOR M.TECH PROGRAMME (38 + 32)				**70**

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NEWCOURSE STRUCTURE - *To be effective from academic session 2018- 19*
Based on CBCS & OBE model
List Of Program Electives for M.Tech in Electrical Engineering (Control System)

Level	Course Code	Courses	Prerequisites courses with code	Mode of delivery & credits *L-Lecture; T-Tutorial;P-Practicals*			Total Credits *C-Credits*
				L (*Periods/ week*)	**T** (*Periods/ week*)	**P** (*Periods/ week*)	**C**
Programme Elective - I							
5	EE511	Optimization in Engineering		3	0	0	3
	EE515	Control System Design		3	0	0	3
	EE513	Robotics and Automation		3	0	0	3
	EE517	Image Processing and Computer Vision		3	0	0	3
Programme Elective - II							
5	EE575	Robust Control	EE503Modern Control Theory	3	0	0	3
	EE573	Embedded System and Application		3	0	0	3
	EE571	Soft Computing Techniques in Electrical Engineering		3	0	0	3
	EE577	Control of Electric Drives		3	0	0	3
	EE565	Power System Operation and		3	0	0	3
Programme Elective - III							
6	EE611	Physiological Control System		3	0	0	3
	EE605	Micro- grid Operation and		3	0	0	3

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LIST OF OPEN ELECTIVES (PG)

Level of Study	Course Code	Courses	Pre-requisites	Mode of delivery & credits *L-Lecture; T-Tutorial;P-Practicals*			Total Credits *C- Credits*
				L *(Periods/ week)*	T *(Periods/ week)*	P *(Periods/ week)*	C
5	EE585	Hybrid Electric Vehicle	NIL	3	0	0	3
	EE587	Electromechenical Energy Conversion	NIL	3	0	0	3
	EE589	Power Semiconductor Devices	NIL	3	0	0	3
	EE595	Smart Grid	NIL	3	0	0	3
	EE597	Reliability Engineering	NIL	3	0	0	3
6	EE601	Process Measurement and Control	NIL	3	0	0	3