BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI

NEWCOURSE STRUCTURE - To be effective from academic session 2018-19

Based on CBCS & OBE model

Recommended scheme of study for

In-depth Specialisation in Signal Processing

Semester/ Session of Study	Course Level	Category of course	Course Code	Courses	Mode of <i>L-Lecture;</i> 2	Total Credits <i>C- Credits</i>				
(Recomended)					L	Т	Р	С		
		THEORY								
	THIRD	PE	EC309	Adaptive Signal Processing	3	0	0	3		
FIFTH			EC311	DSP Processor	3	0	0	3		
Monsoon		LABORATORIES								
	THIRD	PC	EC312	EC312 DSP Processor Lab 0 0				1.5		
	TOTAL									
SIXTH	THIRD	PE	EC355 Time Frequency and Wavelet Transform		3	0	0	3		
			EC357	Speech and Audio Processing	3	0	0	3		
Spring		LABORATORIES								
	THIRD	PC	EC356	Time Frequency and Wavelet Transform Lab	0	0	3	1.5		
				TOTAL				7.5		
	FOURTH	PE	EC405	Digital & Video Image Processing	3	0	0	3		
SEVENTH Monsoon		LABORATORIES								
Monsoon	FOURTH	PC	EC406	Image Processing Lab	0	0	4	2		
TOTAL										
		Minin	um require	GRAND TOTAL ement for In-depth Specialisation awa	ırd			20		

		RSE STRU	JCTURE Based Recomn	F TECHNOLOGY E - To be effective from I on CBCS & OBE moden nended scheme of study sation in Electronic Ins	academ lel y for	ic session					
Semester/ Session of Study	Course Level	Category of course	Course Code	Courses	Mode of delivery & credits L-Lecture; T-Tutorial;P-Practicals			Total Credits <i>C- Credits</i>			
(Recomended)					L	Т	Р	С			
		THEORY									
	THIRD	PE	EC313	Electronic Measurements	3	0	0	3			
FIFTH			EC315	Industrial Instrumentation	3	0	0	3			
Monsoon		LABORATORIES									
	THIRD	PC	EC316	Industrial Instrumentation Lab	0	0	4	2			
	1		•	TOTAL		•		8			
	THIRD	PE	EC359	Microcontrollers and Interfacing	3	0	0	3			
SIXTH Spring			EC373	Introduction to Sensors and Transducers	3	0	0	3			
Spring		LABORATORIES									
	THIRD	PC	EC360	Microcontroller Lab	0	0	3	1.5			
				TOTAL				7.5			
SEVENTH Monsoon	FOURTH	PE	EC421	Bio-Medical Electronics & Signal Processing	3	0	0	3			
		LABORATORIES									
	FOURTH	PC	EC422	Bio-Medical Signal Processing Lab	0	0	3	1.5			
TOTAL								4.5			
		Minimum r		AND TOTAL for In-depth Specialisation award	!			20			

BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI NEWCOURSE STRUCTURE - To be effective from academic session 2018-19 Based on CBCS & OBE model Recommended scheme of study for In-depth Specialisation in Microwave Engineering Total Mode of delivery & credits Course Credits Course Category Semester/ Session L-Lecture; T-Tutorial; P-Practicals Code Courses C- Credits Level of course of Study Р С L Т (Recomended) THEORY EC323 Microwave Theory and Techniques 3 0 0 3 THIRD PE FIFTH EC325 3 0 0 3 Antenna and Wave Propagation Monsoon LABORATORIES THIRD PC EC324 Mirowave Engineering Lab 0 0 3 1.5 TOTAL 7.5 EC365 Radar and Navigation System 3 0 0 3 THIRD PE Introduction to Electromagnetic EC371 3 0 0 3 SIXTH Compatibility Spring LABORATORIES THIRD PC EC366 Mirowave Measurement Lab 0 0 3 1.5 TOTAL 7.5 FOURTH PE EC419 Satellite Communication 3 0 0 3 SEVENTH LABORATORIES Monsoon FOURTH PC EC420 Advanced Communication Lab 0 0 4 2 TOTAL 5 GRAND TOTAL 20 Minimum requirement for In-depth Specialisation award

BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI

NEWCOURSE STRUCTURE - To be effective from academic session 2018-19

Based on CBCS & OBE model

Recommended scheme of study for

In-depth Specialisation in Wireless Communication and Networking

Semester/ Session of Study	Course Level	Category of course	Course Code	Courses		le of deliver re; T-Tutori	y & credits al;P-Practicals	Total Credits <i>C- Credits</i>	
(Recomended)					L	Т	Р	С	
		THEORY							
FIFTH Monsoon	THIRD	PE	EC327	Mobile and Cellular Communication	3	0	0	3	
			EC329	Information Theory and Coding	3	0	0	3	
Wonsoon		LABORATORIES							
	THIRD	PC	EC328	Mobile and Cellular Communication Lab	0	0	3	1.5	
	TOTAL							7.5	
	THIRD	PE	EC367	Computer Networking	3	0	0	3	
SIXTH			EC369	Wireless Networks	3	0	0	3	
Spring		LABORATORIES							
	THIRD	PC	EC370	Wireless Networks Lab	0	0	3	1.5	
				TOTAL				7.5	
	FOURTH	PE	EC419	Satellite Communication	3	0	0	3	
SEVENTH Monsoon		LABORATORIES							
	FOURTH	PC	EC420	Advanced Communication Lab	0	0	4	2	
TOTAL									
		Minimun		GRAND TOTAL mnt for In-depth Specialisation a	ward			20	

		SE STRU	CTURE Based Recomm	TECHNOLOGY- MES - To be effective from academ on CBCS & OBE model ended scheme of study for ecialisation in VLSI Systems						
Semester/ Session	Course Level	Category of course	Course Code	Courses	Mode of delivery & credits L-Lecture; T-Tutorial; P-Practicals			Total Credits <i>C- Credits</i>		
of Study (Recomended)					L	Т	Р	С		
		THEORY								
	THIRD	PE	EC319	VLSI Systems	3	0	0	3		
FIFTH			EC321	Microelectronic Devices and Circuits	3	0	0	3		
Monsoon		LABORATORIES								
	THIRD	PC	EC320	VLSI Systems Lab	0	0	3	1.5		
			1	TOTAL				7.5		
	THIRD	PE	EC361	Digital Systems Design with FPGAs	3	0	0	3		
SIXTH			EC363	Nanoelectronics	3	0	0	3		
Spring		LABORATORIES								
	THIRD	PC	EC362	Digital Systems Design with FPGAs Lab	0	0	4	2		
				TOTAL				8		
	FOURTH	PE	EC413	Real Time Embedded System	3	0	0	3		
SEVENTH Monsoon		LABORATORIES								
	FOURTH	PC	EC414	Real Time Embedded System Lab	0	0	3	1.5		
			1	TOTAL				4.5		
		Minimum re	-	ND TOTAL or In-depth Specialisation award				20		